Exhibit E – Response to Comments (published March 2022)

Alviso Hotel

File No. PD19-031

Initial Study / Mitigated Negative Declaration

RESPONSES TO PUBLIC COMMENTS AND TEXT CHANGES

March 2022

CEQA Lead Agency:

City of San José
Department of Planning, Building and Code Enforcement
200 East Santa Clara Street
San Jose, California 95113 Phone: (408) 535-3555

In Consultation with:

David J. Powers & Associates
1871 The Alameda, Suite 200
San José, CA 95126
Phone: (408) 248-3500

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SECTION 1.0 SUMMARY OF COMMENTS

The Alviso Hotel Initial Study/Mitigation Negative Declaration (IS/MND) was circulated for public review for a 30-day review period, from October 12, 2021 to November 10, 2021. During the circulation period, the City of San José received eight comment letters from six organizations, one agency, and one individual (refer to Section 3.0, below).

In summary, the comments received on the IS/MND did not raise any new issues about the project's environmental impacts, or provide information indicating the project would result in new environmental impacts or impacts substantially greater in severity than disclosed in the IS/MND. CEQA does not require formal responses to comments on an IS/MND, only that the lead agency consider the comments received [CEQA Guidelines §15074(b)]. Nevertheless, responses to the comments are included in this document to provide a complete environmental record.

The following pages contain a list of the agencies and persons that submitted comments on the IS/MND and the City's responses to comments received on the IS/MND. The specific comments have been excerpted from the letter and are presented as "Comment" with each response directly following ("Response"). Copies of the actual letters and email submitted to the City of San José are attached to this document.

The original public comment letters are available in Attachment A.

SECTION 2.0 INITIAL STUDY RECIPIENTS

The Notice of Availability (NOA) for the Alviso Hotel IS/MND was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). The IS/MND was circulated for public comments from October 12 through November 10, 2021. The IS/MND was circulated to the following agencies, organizations and interested parties:

- Santa Clara Valley Transportation Authority
- County of Santa Clara Roads and Airports
- Bay Area Air Quality Management District
- Association of Bay Area Governments
- California Department of Fish and Wildlife
- U.S. Fish and Wildlife Services
- California Environmental Protection Agency
- California Department of Transportation
- California Air Resources Board
- California Energy Commission
- Metropolitan Transportation Commission
- Pacific Gas and Electric
- Valley Water
- San Jose Water Company
- Tribal Representatives
- Santa Clara Valley Audubon Society
- SPUR
- Open Space Authority
- Greenbelt Alliance
- Adams, Broadwell, Joseph & Cardozo Attorneys at Law
- Standing list of interested parties for all CEQA related notifications
- Project specific community members who have expressed interest or have requested for notifications

SECTION 3.0 RESPONSES TO INITIAL STUDY COMMENTS

In accordance with CEQA Guidelines Section 15088, this document includes written responses to comments received by the City of San José on the IS/MND.

Comments are organized under headings containing the source of the letter and its date. The specific comments from each of the letters and/or emails are presented with each response to that specific comment directly following. Copies of the letters and emails received by the City of San José are included in their entirety in Attachment A of this document. Comments received on the IS/MND are listed below.

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REGIONAL AND LOCAL AGENCIES

A. Valley Water (dated November 10, 2021)

Comment A.1: The Santa Clara Valley Water District (Valley Water) has reviewed the Notice of Intent to Adopt a Mitigated Negative Declaration (MND) for the proposed Alviso Hotel Project located south of North First Street and North of Highway 237 in the Alviso area of the City of San José (City), received by Valley Water on October 12, 2021.

Per our review of the MND, we have the following comments:

1. Section 3.2.6 Landscaping, the discussion under this section notes many new trees will be planted including sycamore and oak trees. The proposed landscaping should be revised for conformance with the Guidelines and Standards for Land Use Near Streams - Design Guide 3, as this is a more appropriate guide to use for this development where the goals are geared toward human aesthetics. The use of this Guideline and Standard is also in keeping with the City's landscape requirements to use 15-gallon trees and drought-tolerant species.

Design Guide 3 will help ensure landscaping will be maintained in a manner consistent with the goals of protecting the local natives and replacement plants consistent with this guide are commercially available. This guide provides options for use of either non-invasive, drought-tolerant, non-native ornamental plants that will not have the potential to cross-pollinate with native riparian species or else choosing non-invasive, drought-tolerant, non-local California natives (ornamental natives) with no potential to cross-pollinate with the local native species. Plantings not in conformance with this design guide will have a negative effect on the remnant local natives of either oaks or sycamores found along the Guadalupe River.

The proposed sycamore and coast live oak trees should be deleted from the proposed landscaping. These trees are found locally along the river and what is commercially available are not propagated from local stock. Such plants typically require a custom nursery contract to collect and grow the plants with a one-year lead time and the resulting plants are smaller than 1 gallon in size. Use of commercially available sycamore and coast live oak trees at the site, as noted in Design Guide 3 would result in hybridization with the local natives located along Guadalupe River, negatively impacting the local habitat. Also, the proposed box elder trees and arroyo willows should be reconsidered as they are not typically considered to be drought-tolerant landscaping.

> **Response A.1:** The Valley Water Guidelines and Standards for Land Use Near Streams - Design Guide 3 recommend avoiding certain tree species due to the risk of hybridization if "…native plants of the same genus exist nearby" (page 4.20). The segment of the Guadalupe River adjacent to the site is channelized, and no trees are present in the riparian corridor in the project vicinity. The nearest riparian trees to the project site are located south of Tasman Drive, approximately 4,500 feet from the project site. As a result, the risk of hybridization due to the tree species proposed by the project is low.

The City affirmed that existing City policies were consistent with the guidance presented in the Guidelines and Standards for Land Use Near Streams.[1] While the project would not be required to comply specifically with the Guidelines and Standards for Land Use Near Streams - Design Guide 3, the project would be subject to City policies that achieve the same goals. As described in Section 4.4 and Appendix B of the Initial Study, the project would be consistent with relevant City policies protecting biological resources and would not result in significant impacts to riparian habitat. This comment does not result in new or more significant impacts or additional mitigation and therefore, the IS/MND does not require recirculation.

Comment A.2: 2. Section 4.7.1.2 and Section 4.10.1.2 Existing Conditions, Groundwater on pages 86 and 124 notes groundwater at the site can range from 14 to 15 feet below ground surface. However, Figure 2-16 on page 2-17 of the Valley Water 2016 Groundwater Management Plan notes the depth to groundwater at the site is approximately 0 to 10 feet below ground surface.

Response A.2: The depths to groundwater discussed in the IS/MND were based on site-specific soil borings as described in the Phase I Environmental Site Assessment (ESA) prepared for the site. The text of the IS/MND will be revised to state that the Valley Water 2016 Groundwater Management Plan notes the depth to groundwater at the site is approximately 0 to 10 feet below ground surface (refer to Section 4.0 Initial Study Text Revisions, below). The added text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis.

Comment A.3: 3. Section 4.10 Hydrology and Water Quality, should also note the site is subject to inundation from the Leroy Anderson Dam and the James J. Lenihan Dam on Lexington Reservoir.

Response A.3: The text of the IS/MND will be revised to state that the site is subject to inundation from the Leroy Anderson Dam and the James J. Lenihan Dam on Lexington Reservoir (refer to Section 4.0 Initial Study Text Revision) The added text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis. While the project site is located in the inundation areas for these dams, in the event of a complete dam failure, Valley Water's comprehensive dam safety program and emergency action plan ensure public safety. The dams are inspected regularly by Valley Water in the presence of representatives from the California Division of Safety of Dams and the Federal Energy Regulatory Commission. The potential for the failure of these dams to impact the site is extremely remote. The project would not result in significant impacts related to inundation from dam failure.

Comment A.4: 4. Valley Water records indicate that there is one (1) active well within the project site and possibly one abandoned well. If currently, the active well will continue to be used following the development of the site, it must be protected so that it does not become lost or damaged during

[1] City of San José, Resolution Number 73644, February 12, 2007.

construction. If the well will not be used following the development of the site, it must be properly destroyed under a permit from Valley Water. The abandoned well if found during construction must be properly destroyed in accordance with Ordinance 90-1, which requires the issuance of a well destruction permit or be registered with Valley Water and protected during construction. It should be noted that while Valley Water has records for most wells located in the County, it is always possible that a well exists that is not in Valley Water's records. All wells found at the site must be destroyed or registered with Valley Water as noted above. For questions about the wells, please contact Valley Water's Wells and Water Measurement Unit at (408) 630-2660.

Response A.4: Two Phase 1 ESAs were completed for the site (refer to Appendices D and G of the IS/MND), and neither found evidence of ground water monitoring wells on the site through either records review or site reconnaissance. Due to the potential for wells to exist on the site, the City requires as a standard grading condition that, during construction, the project will properly remove, protect, or register any encountered wells pursuant to a well destruction permit and in accordance with Valley Water Ordinance 90-1. A statement to this effect is also included in the notes section of every Grading and Drainage Plan submitted to the Public Works Department: All known well locations on the site have been included and such wells shall be maintained or abandoned according to current regulations administered by the Santa Clara Valley Water District. This comment does not result in new or more significant impacts or additional mitigation and therefore, the IS/MND does not require recirculation.

Comment A.5: 5. The discussion in various locations of the document notes an on-site trail connection to the Guadalupe Trail as part of this project; however, Valley Water is currently working with the developer on a trail connection to the Guadalupe Trail as part of the Shops at Terra Project located on the adjacent parcel. The MND should be revised to more accurately describe the project will include a connection to the proposed ramp to the Guadalupe River Trail as part of the Shops at Terra Project and at this time the ramp connection has not been permitted and constructed.

If you have any questions, you may reach me at (408) 630-2749, or by e-mail at LBrancatelli@valleywater.org. Please reference District File No. 22079 on future correspondence regarding this project.

Response A.5: The text of the IS/MND will be revised to state the project would include an on-site link to a planned connection to the Guadalupe River Trail (refer to Section 4.0 Initial Study Text Revisions, below). The revised text is technical in nature and does not impact or change the environmental analysis, impacts, or proposed mitigations for the Project.

ORGANIZATIONS, BUSINESSES, AND INDIVIDUALS

B. Laborers International Union of North America – Local Union 270 (dated November 10, 2021)

Comment B.1:

Please find attached a comment letter submitted on behalf of Laborers International Union of North America, Local Union 270 ("LIUNA") regarding the mitigated negative declaration for the Alviso Hotel Project (File No. PD19-031).

Confirmation of receipt of this email and comment would be greatly appreciated. Thank you,

Brian B. Flynn Lozeau | Drury LLP

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members ("LIUNA") living in and around the City of San Jose ("City") to comment on the Initial Study and Mitigated Negative Declaration ("MND") prepared for the Alviso Hotel Project ("Project") (Project File No. PD19-031).

LIUNA's review of the MND was assisted by expert wildlife biologist Dr. Shawn Smallwood, Ph.D., indoor air quality expert Francis Offermann, PE, CIH, and air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of the Soil/Water/Air Protection Enterprise ("SWAPE"). The written comments of Dr. Smallwood, Mr. Offermann, and SWAPE are attached hereto as Exhibit A, Exhibit B, and Exhibit C, respectively. Based on their review, it appears that several of the MND's conclusions are not supported by substantial evidence and, moreover, there is a "fair argument" that the Project may have unmitigated adverse environmental impacts. As required by CEQA, LIUNA requests that the City prepare an environmental impact report ("EIR") rather than an MND prior to approving the Project.

PROJECT DESCRIPTION

The project proposes the construction of a hotel on an undeveloped 6.23-acre site (APN 015-48-006) located south of North First Street and north of Highway 237. The site is bound by the Guadalupe River to the south, State-owned open space to the east, and privately-owned parcels to the north and west. The proposed 5-story hotel would be 112,463-square feet with 214 rooms. The northeast and northwest sections of the site would include surface parking with 21 parking spaces, and a four-story parking garage with 213 spaces, for a total of 234 parking spaces. The proposed five-story building would reach a maximum height of 65 feet including architectural elements, mechanical equipment screens, and elevator shafts. The four-story parking garage would reach a maximum height of 40 feet.

LEGAL STANDARD FOR NEGATIVE DECLARATIONS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist. (2010) 48 Cal.4th 310, 319-20.) "Significant

environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ["PRC"] § 21068; see also 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (No Oil, Inc. v. City of Los Angeles (1974) 13 Cal.3d 68, 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (Communities for a Better Env't v. Cal. Res. Agency (2002) 103 Cal.App.4th 98, 109.)

The EIR is the very heart of CEQA. (Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 1184, 1214 (Bakersfield Citizens); Pocket Protectors v. City of Sacramento (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (Bakersfield Citizens, supra, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (Laurel Heights Improvements Assn. v. Regents of Univ. of Cal. (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (Pocket Protectors, supra, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also Pocket Protectors, supra, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration unless there is a "fair argument" that the project will have a significant environmental effect. (PRC, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (Citizens of Lake Murray v. San Diego (1989) 129 Cal.App.3d 436, 440.) A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and . . . there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (Mejia v. City of Los Angeles (2005) 130 Cal.App.4th 322, 331 [quoting PRC §§ 21064.5, 21080(c)(2)].) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); Pocket Protectors, supra, 124 Cal.App.4th at 927; League for Protection of Oakland's etc. Historic Res. v. City of Oakland (1997) 52 Cal.App.4th 896, 904-05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); Pocket Protectors, supra, 124 Cal.App.4th at 931; Stanislaus Audubon Society v. County of Stanislaus (1995) 33 Cal.App.4th 144, 150-51; Quail Botanical Gardens Found., Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (Pocket Protectors, supra, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, Practice Under CEQA, §6.29, pp. 273-74.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a preference for resolving doubts in favor of environmental review." (Pocket Protectors, supra, 124 Cal.App.4th at 928.)

DISCUSSION

An EIR Is Required to Disclose and Mitigate the Project's Impacts to Biological Resources.

Expert wildlife biologist Dr. Shawn Smallwood, Ph.D., found several deficiencies in the MND's analysis of the Project's impacts on wildlife species. Dr. Smallwood's comment and CV are attached as Exhibit A. As discussed below, Dr. Smallwood concluded: (1) the MND's biological report underestimated the diversity of species and the Project's likely impacts to those species; (2) the MND's biological report failed to provide substantial evidence of the Project's impacts; (3) the MND failed to assess or mitigate the Project's impacts to species from habitat fragmentation, movement restriction, road mortality, and window collisions; and (4) the MND's mitigation measures were inadequate to reduce the Project's impacts to biological resources.

> **Response B.1:** This is an introductory comment and attempt to summarize the project and law. The comment does not raise any specific issue relating to the environmental analysis of the IS/MND. Therefore, no additional response is required. Detailed comments and responses are included below to specific issues raised in the comment letter. As demonstrated in the detailed responses to comments, the comment letter does not provide substantial evidence supporting a fair argument that the project would result in significant unavoidable impacts requiring preparation of an EIR.

Comment B.2: A. The MND underestimated the diversity of species using the Project site.

Dr. Smallwood performed an approximately two-hour site visit to the Project site on October 30, 2021. (Ex. A, p. 1.) Dr. Smallwood detected "34 species of vertebrate wildlife, including at least 8 special-status species" such as the California brown pelican, double- crested cormorant, and red-tailed hawk. (Id. at pp. 3, 8.) The Biological Resources Assessment prepared for the MND by WRA Environmental Consultants ("WRA Report") identified less than a third of the species identified by Dr. Smallwood. (Id. at p. 12; WRA Report, Appx. B, p. B-4 [identifying ten wildlife species

observed in Project area].) Twenty-four of the species detected by Dr. Smallwood had not been identified in the WRA report. (Ex. A, p. 3.) For example, Dr. Smallwood took photographs of California brown pelicans and white-tailed kites:

Both species are fully protected under California law (Id. at p. 8.) This failure of the WRA Report to detect special-status species and an abundance of other wildlife at the Project site underscores the inadequacy of the MND's analysis and the need for an EIR. (Id. at p. 12.)

Although Dr. Smallwood's site visit lasted only 2 hours, Dr. Smallwood calculated that more thorough site visits would reveal an even greater diversity of wildlife. (Ex. A, p. 9.) Given more time to survey the site, Dr. Smallwood's predicts that he would have observed an additional 20 species (54 species total) compared to the 34 species observed on October 30. (Id. at pp. 9-10.) Based on his review of the MND and his site visit, Dr. Smallwood concluded, "the wildlife community of the project site is incompletely and inaccurately characterized in the IS/MND . . . [and] the biological resources survey provided an unacceptably poor basis for an analysis of potential project impacts to wildlife." (Id. at p. 12.)

Response B.2: As this comment letter directly references the contents of the Biological Resources Assessment prepared for the project by WRA, the City consulted with WRA when preparing these responses. WRA and the City acknowledge that biological observations, particularly those of species composition, are highly dependent on many factors outside of the control of the observer regardless of their level of experience. As accurately stated by Dr. Smallwood, species composition on a given day may vary widely dependent on various factors, including time of year, time of day, weather, and others. While he may be correct in stating that additional survey time would likely yield additional species observations, projections made by Dr. Smallwood regarding species diversity within the project area are largely speculative, and do not appear to take into account factors such as time of year; this in particular is an important factor when considering species richness at a location given spring and fall migratory periods, generalized summer versus winter distributions, etc.

CEQA-level biological reports primarily assess habitats and the potential for species to be present based on existing conditions. It is important to note that while WRA's site visit included observations of species present within the project area, this effort was not intended to constitute a dedicated bird/wildlife survey (e.g., a point-count survey). As stated on page one of the Biological Resources Assessment (BRA) prepared for the project (refer to Appendix B of the IS/MND): "A BRA provides general information on the potential presence of sensitive species and habitats. The BRA is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. Our determinations regarding the potential of the Project Area to support special-status plant and wildlife species were based primarily on the suitability of habitats within the Project Area, the proximity of known occurrences, and an on-site inspection. This assessment is based on information available at the time of the study and onsite conditions that were observed during the site visit conducted in December 2019."

Additionally, WRA only recorded species that were observed in direct association with the site. WRA does not typically consider species that are observed only in aerial transit well above a given site to be present there. Similarly, this includes species that may be observed on nearby sites. Aerial foraging within the project area's airspace would warrant inclusion in many cases, e.g., for raptors (birds of prey), and bats, if relevant. However, waterbirds (e.g., double-crested cormorant, brown pelican) flying from one habitat patch to another generally do not warrant such inclusion, or at least such observations should be clarified that the birds involved were clearly in aerial transit, and that the observations at the focal site were largely incidental. For these reasons, bird species (and other wildlife) are generally assessed based on the likelihood of a site to support critical life functions (e.g., breeding or nesting), rather than the potential for the species to simply fly over.

Dr. Smallwood states that he observed three special-status species on-site, including Fish and Game Code (FGC) Birds of Prey and TWL ("Taxa to Watch List"; Shuford and Gardali 2008). Although methodological details may vary somewhat, species typically regarded as "special-status" in this context include: those that have been formally listed, or are candidates for such listing, under the federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA); CDFW Fully Protected Species (CFP); and, CDFW Species of Special Concern (SSC). Although SSCs generally have no special legal status, they are given special consideration under CEQA. Many of the observed species that Dr. Smallwood classifies as "special-status" are common and widespread species that are not typically given special consideration under CEQA or even included on CDFW's highly inclusive Special Animals List. For example, simply being referenced in the California Fish and Game Code (e.g., all birds of prey) does not indicate that a species is special-status. Of the species observed by Dr. Smallwood, white-tailed kite (CFP) is the only species that should clearly be considered special-status. While California brown pelican is also designated as a CFP and was specifically mentioned by Dr. Smallwood in his report, it is WRA's professional opinion that the project area does not provide any substantial habitat value for this species. WRA completed a search of databases for special-status species with potential to occur in the project area (see

Appendix C of Appendix B- Biological Resource Report). The California brown pelican was not included within these databases as having potential to occur on the site. However, as noted in Appendix B, animals may traverse the project area briefly during use of the Guadalupe River, seasonal wetlands, and the non-wetland water feature. Note also that WRA's assessment identified white-tailed kite as having the potential to occur on-site, which Dr. Smallwood specifically mentions observing on site.

It is important to note that while WRA's site visit included observation of species present within the project area, WRA's survey was not intended to constitute a dedicated bird/wildlife survey (e.g., a point-count survey). Additionally, for the purposes of assessing CEQA impacts, WRA's species list, compiled by experienced experts in Bay Area flora and fauna, was comprised only of species observed to be utilizing habitats within the project area.

WRA and the City acknowledge that the CNDDB and reconnaissance-level site assessments cannot concretely determine the presence or absence of a species. However, the use of the word "absence" in the context described does not substantively change any of the conclusions made in the IS/MND, nor does it affect any of the impact determinations therein. Taking the example of tricolored blackbird, most mitigation measures for this species focus on impacts to nesting sites, which are always colonial in nature and situated in areas of dense emergent vegetation in or adjacent to freshwater. While such vegetation may be present in nearby wetland areas, none is present within the project area. As discussed in the Biological Resource Assessment (Appendix B), given that the nearest documented breeding location, based on the CNDDB, is three miles away from the project area, and no breeding habitat is present within the project area, the species is determined to have very little likelihood to establish a nesting colony in a location that could be impacted by the project. CEQA impacts are determined based on the likelihood of a species to occur and, while WRA and the City agree that a concrete absence determination is not appropriate based solely on database results and/or limited field investigations, the analytical framework used in the biological report and IS/MND is not a "misappropriation" of data and is consistent with the typical level of assessment found in CEQA documents. Based on the above response, this comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Additionally, Dr. Smallwood's observations were made during the month of October, while WRA visited the site in December. This temporal difference (approximately seven weeks) could have influenced the number of species observed, particularly near the habitats of the San Francisco Bay; late October is the terminus of the bird fall migratory period in a typical year, when species richness in the region is often relatively high. As accurately stated by Dr. Smallwood, species composition on a given day may vary dependent on various factors, including time of year, time of day, weather, and others. As such, WRA and the City maintain that although WRA's biologists observed fewer species within the project area than Dr. Smallwood, this fact does not call into question the credibility of the biological report. Lastly, Dr.

Smallwood's claim that it is "not credible" to have observed no special-status species within the project area is speculative. As stated in Response B.2 above, the only species observed by Dr. Smallwood that would be considered special-status within the context outlined above was the white-tailed kite. While WRA did not observe this species during site visits, the IS/MND acknowledged that it has the potential to occur on the site and includes mitigation measures to avoid significant impacts to white-tailed kites (refer to MM BIO-1.2). This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

The IS/MND accurately described the potential for special status species (as defined under CEQA) to utilize the site. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Comment B.3: B. The MND relied on an inadequate biological report.

In addition to the WRA Report failing to adequately disclose the diversity of species that would be impacted by the Project, Dr. Smallwood's review also found numerous other deficiencies in the WRA Report. (Ex. A, pp. 11-17.)

First, Dr. Smallwood found that the WRA Report provided an inaccurate description of the Project site. (Ex. A, p. 11.) According to the WRA Report, 48% of the site is "developed." That is not so. It is true that a portion of the site has been graded, however, as Dr. Smallwood explains, "[g]raded land without impervious surface can support vegetation and wildlife, and it does so at this project site." (Ex. A, pp. 11-12.)

Response B.3: "Developed" is an industry term for land that has been heavily graded and/or disturbed, and no longer supports native vegetation. It can be used to refer to areas with or without impervious surface. The description of developed portions of the site were described as observed during the December 17, 2019 site visit. At that time, developed portions of the project area appeared to have been recently graded and consisted of mostly bare ground, with sparse cover by annual grass seedlings. The Biological Resources Assessment and IS/MND do not describe developed portions of the project area as devoid of vegetation or wildlife, although heavy grading and disturbance does have a significant effect on vegetation structure, species composition, species abundance, and habitat suitability for special-status plant and wildlife species. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.4: Second, the WRA Report "neglected to report the most basic information needed to assess the rigor of the biological survey." (Ex. A, p. 12.) There was no indication in the WRA Report as to who performed the survey, what qualifications the surveyors had, what time of day the survey took place and for how long, and what methods were used to survey the Project site. (Id.) Such information may have provided some insight into why the WRA Report found less than a third of the species on the Project site as Dr. Smallwood and less than a quarter of the species found in a survey

conducted for the adjacent Topgolf facility. However, without such details, the MND fails to provide substantial evidence in support of its conclusions about impacts to biological resources. As Dr. Smallwood concluded, "It is not credible to have detected no special-status species of birds, whereas [the Topgolf survey] and I detected 13 special-status bird species on the site and another special-status species of bird just north of the site." (Id.)

Response B.4: The botanical portion of the WRA reconnaissance site visit was conducted on April 13, 2018 by Scott Batiuk, a botanist who is experienced with the common and special-status flora of the South Bay, and has more than 8 years of botanical survey experience, including 6 years of experience in the San Francisco Bay Area, at the time of the site visit. Scott Batiuk was on site for approximately two (2) hours. The wildlife portion of the WRA reconnaissance site visit was conducted on December 17, 2019 by Dr. Brian Kearns, who is an experienced wildlife biologist with a specifically avian focus. Dr. Kearns was on site for approximately two (2) hours. This site visit was conducted during morning hours when wildlife species would generally be sufficiently active to be easily observed.

Dr. Smallwood states that he observed 34 vertebrate wildlife species on-site during his site visits on October 30, 2021. It is again important to note that while WRA's site visit included observation of species present within the project area, WRA's survey was not intended to constitute a dedicated bird/wildlife survey (e.g., a point-count survey). Additionally, for the purposes of assessing CEQA impacts, WRA's species list, compiled by experienced experts in Bay Area flora and fauna, was comprised only of species observed to be utilizing habitats within the project area.

Additionally, Dr. Smallwood's observations were made during the month of October, while WRA visited the site in December. This temporal difference (approximately seven weeks) could have influenced the number of species observed, particularly near the habitats of the San Francisco Bay; late October is the terminus of the bird fall migratory period in a typical year, when species richness in the region is often relatively high. As accurately stated by Dr. Smallwood, species composition on a given day may vary dependent on various factors, including time of year, time of day, weather, and others. As such, WRA and the City maintain that although WRA's biologists observed fewer species within the project area than Dr. Smallwood, this fact does not call into question the credibility of the biological report. Lastly, Dr. Smallwood's claim that it is "not credible" to have observed no special-status species within the project area is speculative. As stated in Response B.2 above, the only species observed by Dr. Smallwood that would be considered special-status within the context outlined above was the white-tailed kite. While WRA did not observe this species during site visits, the IS/MND acknowledged that it has the potential to occur on the site and includes mitigation measures to avoid significant impacts to white-tailed kites (refer to MM BIO-1.2). This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Comment B.5: Third, the WRA Report's review of available literature and databases were "much too cursory to support an analysis of potential project impacts." (Ex. A, p. 12.) The WRA Report

relied on one database, the California Natural Diversity Data Base ("CNNBD"), to conclude that only 42 special-status of wildlife had been recorded in the vicinity of the Project site. However, Dr. Smallwood explains that CNNBD "is not the only resource available, nor is it the best resource for certain taxa such as birds." (Id.) By including additional databases in the review, such as eBird and iNaturalist, Dr. Smallwood found that 87 special-status species (as opposed to the 42 species in the WRA Report) were known to occur in the area. (Id. at pp. 12-13.) By relying on cursory review of one database, the MND "has left the characterization of the project site's wildlife community incomplete and inaccurate." (Id. at p. 13.)

Response B.5: The CNDDB is a widely used tool in CEQA-level analyses, largely due to its inclusion of species that are protected through the CEQA process. WRA and the City acknowledge that the CNDDB is not inclusive of all occurrences of wild animals, and additionally acknowledge the utility that citizen science tools such as eBird and iNaturalist can provide when considering site biodiversity. eBird in particular is relatively robust when used appropriately, given both the high level of peer review applied to data and typical standards of accuracy that serious recreational birders adhere to. iNaturalist, however, is less reliable as a resource due to the often questionable and un-reviewed nature (e.g., regarding location) of the observations. Regardless, CEQA biological site assessments focus on potential habitat for special-status species that are documented regionally (see Response B.2 for further discussion on species typically considered "special-status" in CEQA analyses) or species groups with specific protections (e.g., nesting native birds) based on existing conditions.

Additionally, a literature and database search for potential occurrence of special-status species in the project area reviewed the following sources, in addition to the CNDDB: A Field Guide to Western Reptiles and Amphibians, Aerial photographs (Google Earth 2019, NETR 2019), CNPS Inventory, CDFG publication "California's Wildlife, Volumes I – III", CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern*, CDFW publication *California Bird Species of Special Concern in California*, Final Santa Clara Valley Habitat Plan, Historic Aerials (NETR 2019), USFWS National Wetland Inventory, USFWS Information for Conservation and Planning Database, Online Soil Survey, and WBWG Species Accounts Region 5.

Presumably, many of the additional special-status species described by Dr. Smallwood above as being omitted in the WRA report are the result of being overly inclusive of statuses not typically considered in CEQA-level analyses, as previously described. Therefore, based on the above response this comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Comment B.6: Fourth, the WRA Report's surveys and database review were improperly used to support the MND's conclusions. (Ex. A, p. 13.) The WRA Report expressly noted that its survey was "not intended to determine the actual presence or absence of a species." (WRA Report, p. 8.) Despite that disclaimer, the MND used the results of the WRA survey to conclude that species were absent from the Project site. (See, e.g., MND, p. 68 ["no tricolored blackbirds were observed . . . during the

site survey . . . , and the species is determined to be absent."].) Similarly, the WRA Report used CNNDB data to determine whether a species was absent from the Project site even though CNNDB "is inappropriate for determining absence." (Ex. A, p. 13.)

By misappropriating data in this way, the MND fails to provide substantial evidence for its conclusions regarding the Project's impacts on biological resources.

> **Response B.6:** WRA and the City acknowledge that the CNDDB and reconnaissance-level site assessments cannot concretely determine the presence or absence of a species. However, the use of the word "absence" in the context described does not substantively change any of the conclusions made in the IS/MND, nor does it affect any of the impact determinations therein. Taking the example of tricolored blackbird, most mitigation measures for this species focus on impacts to nesting sites, which are always colonial in nature and situated in areas of dense emergent vegetation in or adjacent to freshwater. While such vegetation may be present in nearby wetland areas, none is present within the project area. As discussed in Appendix B, given that the nearest documented breeding location, based on the CNDDB, is three miles away from the project area, and no breeding habitat is present within the project area, the species is determined to have very little likelihood to establish a nesting colony in a location that could be impacted by the project. CEQA impacts are determined based on the likelihood of a species to occur and, while WRA and the City agree that a concrete absence determination is not appropriate based solely on database results and/or limited field investigations, the analytical framework used in the biological report and IS/MND is not a "misappropriation" of data and is consistent with the typical level of assessment found in CEQA documents. Based on the above response, this comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Comment B.7: C. The MND failed to disclose and mitigate the Project's impacts on habitat loss, wildlife movement, road mortality, and window collisions.

Dr. Smallwood found that the MND failed to discuss numerous significant impacts that the Project may have on biological resources, including habitat loss, wildlife movement, road mortality, and window collisions. (Ex. A, pp. 17-25.) Dr. Smallwood's analysis constitutes a fair argument that the Project may have significant unmitigated impacts and, as such, an EIR is required prior to approval of the Project.

> **Response B.7:** This is a conclusory comment. No further response is required. As demonstrated in the detailed responses to other comments, the comment letter does not provide substantial evidence supporting a fair argument that the project would result in significant unavoidable impacts requiring preparation of an EIR.

Comment B.8: 1. Habitat loss and fragmentation.

The MND does not analyze and disclose the impact to wildlife due to habitat loss. As Dr.

Smallwood explains, “Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity.” (Ex. A, p. 18.) Dr. Smallwood calculated that the Project would result in a birth-reduction of 70,660 birds over the next century due to the loss of terrestrial habitat. (Id. at p. 18.) He concluded that this impact “would be substantial, and would qualify as significant impacts that have yet to be addressed by the IS/MND.” (Id.) However, the MND failed to address or analyze this potentially significant impact. (Id.) An EIR is necessary to ensure the impact to wildlife from habitat loss is mitigated to the fullest extent.

Response B.8: The comment’s assertion that construction of the project would result in substantial habitat loss is incorrect. Firstly, the comment supports its claims of reproductive impact on avian species using nesting density numbers obtained from studies conducted by Young (1948) and Yahner (1982) in “grassland/wetland/woodland complexes”, which Dr. Smallwood likens to the habitats present within the project area. While it is true that the project area is located adjacent to ruderal open space where birds may be present, it is a misleading extrapolation to use density numbers from the aforementioned studies to determine how many nests will be lost as a result of the proposed project. First, the project area and vicinity does not contain any woodlands, and direct and indirect impacts to wetlands within the project area would be avoided via the implementation of mitigation measures MM BIO-3.1 and MM BIO-3.2. The majority of the project area contains either bare ground or ruderal, weedy vegetation, rather than pristine or native grassland. Both studies cited by Dr. Smallwood were conducted on ecological reserve areas or agricultural research stations, and, despite any potential habitat similarities, are not considered by WRA to be representative of the urban-open space landscape present within the project area and in the immediate vicinity. Second, both of these studies were conducted in the Midwestern region of the United States (Wisconsin and Minnesota, respectively). Geographic location is important to consider with regard to biological resources, as it dictates differences in species assemblage, differences in ecosystem productivity, and the difference in the length of the available nesting season in a Mediterranean climate versus a climate where harsh winters would preclude bird nesting until late spring.

Although the proposed project will remove a small amount of potential bird nesting habitat, such as small shrubs and one palm tree (see Figure 6 of Appendix B for a graphic of the project’s footprint relative to the biological communities on site), the overall impact of the project to available habitat and wildlife resources in the vicinity is not considered significant under CEQA. When considered in the overall regional context, activities on the project area will not have a significant impact on available nesting habitat for avian species. The project will persist adjacent to habitat that is generally similar to the project area or, in fact, of higher quality, indicating that birds that might otherwise nest within the project area will not be forced to make large movements to find suitable habitat after the project is completed. In fact, many of the species observed during WRA’s and Dr. Smallwood’s site visits are known to be tolerant of anthropogenic disturbance and development, and would not experience significant displacement effects as a result of the proposed project. Furthermore, Mitigation Measures included in the MND (i.e., MM BIO-1.2 which requires nesting bird surveys and associated disturbance buffers if active nests are discovered) will

prevent significant impacts to any birds that may be actively nesting within the project area. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.9: 2. Wildlife Movement

The MND's analysis of the Project's impacts to wildlife movement is flawed. Although the MND acknowledges that "[t]he project site is in the vicinity of known avian breeding and migratory habitat," the MND then only discusses building design standards related to bird- window collisions with no further discussion of wildlife movement. (MND, p. 63.) A proper analysis of the Project's impacts on wildlife movement is crucial because "the project site is located right where the western and eastern shores of the San Francisco Bay funnel shore- hugging migratory birds toward their passage through the Santa Clara Valley." (Ex. A, p. 20.) More than a million birds pass through greater San Jose each year, which are protected under various federal and state laws. (Id.) Dr. Smallwood recommends that a more thorough analysis of the Project's impacts to wildlife movement be included in an EIR. (Id.)

Response B.9: Based on surrounding land uses and the prevalence of non-developed (natural/semi-natural) land covers, it is not warranted to consider the site critical to wildlife movement in the area. While some species, particularly volant (i.e., flying) species, can use "stepping stone" dispersal habitats, or closely spaced pockets of habitat between larger core habitat, above all wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat. The project area does not serve these functions, and the "more than a million birds" presumably tend to select higher quality habitats such as the nearby marshes of Don Edwards National Wildlife Refuge. The project area is adjacent to several consistently trafficked roadways (including a state highway), and a significant amount of residential, commercial, and light industrial development. The site is located within 0.5 mile of marsh areas along the south arm of the San Francisco Bay, and several other large and small patches of undeveloped land that provide higher quality habitat and are more likely to facilitate movement of wildlife species. It should be noted as well that the majority of the bird species observed within the project area by Dr. Smallwood and WRA are tolerant of anthropogenic activities and disturbance; indeed, these species often occur year-round, inclusive of successful breeding, in developed/urban areas (e.g., Anna's hummingbird, American crow, mourning dove, etc.). Based on WRA's observations, although nearby habitats may provide high quality movement habitat, the project area itself is mainly used for foraging or short-distance dispersal for small numbers of urban-adapted species. Therefore, the proposed project is not anticipated to result in any significant impacts to local or regional wildlife movement, let alone result in the loss of critically important movement habitat. Window collisions are addressed in more detail in Response B.11 below. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Comment B.10: 3. Road Mortality.

The impacts to wildlife from collision with traffic generated by the Project was not addressed in the MND. According to the MND, the Project would result in 599,330 vehicle miles traveled annually and 1,642 daily trips. (Ex. A, p. 20.) Dr. Smallwood estimates that collisions with vehicles as a result of the Project would kill between 4,926 and 8,2010 animals annually (over 246,300-410,500 animals over 50 years of Project operation). (Id. at p. 23.) Especially due to the special-status species likely to occur at or near the Project, these collisions represent a significant impact to wildlife that has not been addressed, discussed, or mitigated in the MND. Dr. Smallwood's calculations constitute a fair argument that an EIR is necessary to address and mitigate this impact.

Response B.10: The comment estimates the number of animals killed per year from vehicles travelling to and from the project area. The data upon which the comment is based is from a study of road mortality along a 2.5 mile stretch of Vasco Road in Contra Costa County. Vasco Road is located in a rural, undeveloped area, and traverses the Diablo Range. The rate of mortalities of animals along this stretch of road cannot be meaningfully compared to the project, which is located in an urban area surrounded by development. Vehicles travelling to and from the site would utilize existing roads in highly urbanized areas. The comment provides no evidence that special-status species have been killed on the urban roadways that would be utilized by vehicles travelling to and from the site. Furthermore, it would be speculative to try and estimate the number of wildlife individuals (special-status or otherwise) that would be injured or killed based purely on the additional vehicle trips from the proposed project as opposed to existing traffic or new trips from other development projects. Per Section 15145 of the CEQA guidelines, speculative analysis is not acceptable. Lastly, although the project and its proponents will seek to minimize incidences of traffic-related mortality of all species, the threshold for CEQA significance is not applicable to non-status species unless the project would have a regional impact on the viability of the species or species group. Due to the factors described above, no reasonable argument can be made that vehicle traffic to and from the site will have an impact of this kind and thus the impact is not considered significant under CEQA. The comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species as a result of roadway mortality.

Comment B.11: 4. Window Collisions.

The relationship of the Project's structures to the adjacent Topgolf creates intensifies the Project's likely impacts to bird species from window collisions. Topgolf is required to place glow-in-the-dark markers along the net surrounding the driving range. As Dr. Smallwood notes, the proposed hotel's windows would be located only 23 meters from the Topgolf net, creating a visual interaction between the net and windows which increases collision risks for birds. (Ex. A, p. 24.) Reviewing the renderings for the Project, Dr. Smallwood noted "its liberal use of structural glass on its facades," which "would introduce substantial collision hazards to an aerosphere that currently provides critically important habitat to birds, and which would act as lethal traps to flying birds." (Id.)

The impacts from window collisions are important because such collisions "are often characterized as either the second or third largest source or human-caused bird mortality." (Ex. A, p. 24.) Dr.

Smallwood calculated that the glass facades of the hotel would result in 195 bird deaths per year. (Ex. A, p. 26.)

Even though the MND acknowledged that there may be an impact from window collisions, its analysis of the impact was inadequate. (See Ex. A, pp. 31-33.) For example, the WRA Report claimed that green walls on the parking garage would attract birds for foraging, a claim that Dr. Smallwood describes as "silly." (Ex. A, p. 33.) The WRA Report also claimed that window collisions would be reduced because the windows would have curtains or blinds. (Ex. A, p. 32.) However, the Report ignores the fact that there would be no requirement for hotel guests to draw their blinds or curtains at any point.

Notably, Dr. Smallwood concluded that "the location of the project within a known wildlife movement corridor, the large extent of its windows, the IS/MND's renderings of the windows as reflective on the upper floors and transparent on the bottom floor, the shape of the building that would funnel flying birds towards windows, and its location close to a 170-foot-tall net all point toward a high bird-window collision rate and a significant impact." (Ex. A, p. 33.) Dr. Smallwood suggests a number of mitigation measures that would reduce the impact from window collisions. (Ex. A, pp. 30-31.) This impact and mitigation measures should be further considered in an EIR.

Response B.11: WRA has conducted numerous bird-safe design analyses for projects around the Bay Area, and is well-versed in various city and regional guidelines dictating best design practices to minimize bird strikes, including, in part, those mentioned by Dr. Smallwood. There is increasing awareness that collision with buildings and structures is a noteworthy cause of avian mortality worldwide. As noted by Dr. Smallwood, a number of design factors are associated with the average rate of bird collisions, including the total extent of exterior glazing (glass; e.g., windows), size of individual contiguous glazing panels, glazing reflectivity, placement and types of landscaping, details of on-site artificial night lighting, building shape, and other factors. As such, and per requirements to which the project is beholden, WRA conducted the bird safe design analysis to which Dr. Smallwood repeatedly refers to in his comment letter. The outcome of this analysis was that, based on the City of San José Downtown Design Guidelines (hereafter "Guidelines"), City Council Policy 6-34 (Riparian Corridor Protection and Bird-Safe Design), and mitigation measures for this project, the building's design was determined to be sufficient to reduce bird collision risk to a less than significant level. The Downtown Design Guidelines contain the City's most up to date guidance on bird-safe design.

WRA first assessed the plans for this project in December of 2019, wherein recommendations were made to alter some aspects of the building design in favor of more stringent compliance with bird safe design guidelines set forth in City of San José Downtown Design Guidelines (hereafter "Guidelines") and City Council Policy 6-34 (Riparian Corridor Protection and Bird-Safe Design). The applicant, following this feedback, redesigned the hotel to better adhere to glazing, lighting, landscaping, and design requirements identified by WRA as being of relatively high risk for bird collisions.

The building proposed by the project presents a relatively low risk for bird collisions for several major reasons: surface glazing is relatively minimal, and comprises less than 50 percent of all elevations of the building; the elevations all exhibit "architectural relief", which creates visual noise that is likely to be visible to dispersing birds; landscape trees are oriented parallel to the building elevations, which reduces risk relative to a perpendicular orientation; the building is devoid of identified high-hazard features such as glass guardrails, rooftop gardens, transparent corners, etc.. Additionally, as per MM BIO-4.1 in the IS/MND, the entire elevation of the building facing the Guadalupe River will be constructed using treated glazing materials, and only 10 percent of any other building elevation may be comprised of untreated glazing. This represents a very low percentage of the overall glazing that may be left untreated. Dr. Smallwood also makes several mentions of ways in which birds may collide with opaque surfaces on the building. While birds may, under certain circumstances, collide with an opaque and visible surface, WRA and the City do not agree that this presents a significant risk for bird collisions. Bird-safe standards are chiefly concerned with regulating glazed surfaces largely because it is widely accepted that these surfaces provide the greatest risk for collisions. The analysis included here is concerned with assessing whether the building in question will present a significant impact to biological resources, and in the case of bird collisions, it will not. While Dr. Smallwood may advocate for a more conservative approach with reducing bird collision risk, it is WRA's and the City's assertion that the applicant has exceeded standard expectations with a design that will present a relatively low, and certainly less-than-significant, collision risk for birds; furthermore, this design conforms to relevant guidelines and regulations applicable to this project, regardless of personal opinions as to the adequacy of the regulations.

Additionally, the City would like to specifically address concerns raised by Dr. Smallwood regarding the "interaction" between the TopGolf net and the proposed hotel building. First, the net in question is not associated with the current development. However, in pictures included in Dr. Smallwood's comment letter, the net is very obviously visible even from a distance, suggesting that birds would be likely to detect it while in flight. He has also failed to provide any evidence that the net itself poses any inherent collision risk. Assuming that birds were indeed "funneled" between the hotel building and the TopGolf net as Dr. Smallwood describes, only a very small and minimally glazed portion of the building comes within the 26 meters identified in the comment. At this location, where only a small corner of the building is present, only 10 percent of the elevation would potentially be comprised of untreated glazing, as per MM BIO-4.1, making the opportunity for strikes quite limited. The rest of the building extends back away from the net, and as aforementioned provides a relatively low collision risk in and of itself. Any funneling that may occur is confined to an extremely small area, and is unlikely, given the setting, to cause a significant increase in bird collisions.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Please see the original bird-safe design report for additional consideration of this issue. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts related to window collisions.

Comment B.12: 5. Cumulative Impacts.

Dr. Smallwood found the MND's discussion of cumulative impacts to wildlife to be inadequate. (Ex. A, p. 34.) The MND falsely assumes that cumulative impacts would be less than significant because the Project's impacts are less than significant. However, that is not the standard under CEQA. Under CEQA, individually insignificant impacts can nevertheless be cumulatively considerable. The MND fails to provide "an appropriate, serious analysis of cumulative impacts." (Ex. A, p. 34.) Thus, the MND's conclusion that the cumulative impacts would be less than significant is unfounded and should be revised.

Response B.12: Section 4.4, Biological Resources, in the IS/MND accurately describes that the project would implement measures to reduce impacts to biological resources which, combined with the requirements of all projects in the area to implement best management practices (BMPs) and compliance with applicable regulations protecting biological resources, would result in a less than significant cumulative impact. For example, other projects in the region may impact suitable habitat for the burrowing owl and Congdon's tarplant; however, the Santa Clara Valley Habitat Plan (SCVHP) will require implementation of conservation measures for the burrowing owl and the SCVHP land conservation plan. The SCVHP is an adopted Habitat Conservation Plan and has been developed over many years by a group of experts specifically to facilitate local conservation of covered species that are subject to decline due at least in part to land conversion actions. The SCVHP will help to ensure the conservation of the burrowing owl and its habitat throughout the project region. Many projects in the region that impact resources similar to those impacted by the proposed project will be covered activities under the SCVHP and will mitigate impacts on sensitive habitats and many special-status species through that program, which will require payment of fees for habitat restoration and conservation. Although Congdon's tarplant is not covered specifically in the SCVHP, through its land conservation plan, suitable habitat for the species may be preserved. The SCVHP calls for protection of 13,300 acres of California annual grassland and 15 acres of wetlands (perennial or seasonal), potentially suitable habitat for the Congdon's tarplant. Further, the project would implement a number of BMPs and mitigation measures to reduce impacts on sensitive habitats and to both common and special-status species, as described in Section 4.4 Biological Resources. Thus, the project will not make a cumulatively considerable contribution to substantial cumulative effects on biological resources.

The text of the IS/MND will be revised to provide additional details in the discussion of cumulative biological resources impacts (refer to Section 4.0 Initial Study Text Revisions, below). The added text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis. This comment does not provide substantial evidence supporting a fair

argument that the project would result in, or make a considerable contribution to, cumulative biological resources impacts.

Comment B.13: D. The MND's proposed mitigation measures are inadequate.

Dr. Smallwood critiqued the MND's proposed mitigation measures as being inadequate to reduce the Project's impacts to biological resources. (Ex. A, pp. 34-36.) Both MM BIO-1.2 and MM BIO-1.3 improperly rely on preconstruction surveys rather than detection surveys to protect special-status species. As Dr. Smallwood explains,

Detection surveys were designed by species experts, often undergoing considerable deliberation and review before adoption. Detection surveys often require repeated efforts using methods known to maximize likelihoods of detection. Detection surveys are needed to assess impacts and to inform the formulation of appropriate mitigation measures, because preconstruction surveys are not intended for these roles either.

(Ex. A, p. 34.) In contrast, preconstruction surveys "are only intended as last-minute, one-time salvage and rescue operations targeting readily detectable nests or individuals before they are crushed under heavy construction machinery." (Id.) Instead of relying only on preconstruction surveys, an EIR should be prepared requiring detection surveys to be performed followed by preconstruction surveys. (Id.) Furthermore, the EIR should require that how the results of such surveys would be reported to avoid "serving as an empty gesture rather than a mitigation measure." (Id.)

Response B.13: As addressed previously, the majority of species that Dr. Smallwood identifies as special-status are in fact not considered special-status under CEQA as discussed in Response B.2. Dr. Smallwood's comments additionally suggest that preconstruction surveys for nesting birds will not sufficiently detect nests that are potentially present, and also do not sufficiently reduce the impact of this project, or projects in general, to a less-than-significant level. This statement is misleading. If special-status or common (i.e., those protected only by the Migratory Bird Treaty Act and California Fish and Game Code) avian species are nesting within the project area, adequately performed pre-construction surveys should detect active nests, and avoidance of these nests would consequently be required under mitigation measures MM BIO-1.2 and MM BIO-1.3. There is some limited potential for the site to support nesting by common raptors, i.e., via the few trees that are present. However, raptor nests are typically placed high in trees or on other large structures, and are usually detectable by a skilled observer. Vegetation within the site is not sufficiently dense to prohibit access of a surveying biologist at any location; thus, all areas could be surveyed thoroughly, and any nests present would likely be detected. In addition, pre-construction nesting bird survey best practices typically include behavioral observation as well as simply looking for nest structures, which greatly increases the likelihood of identifying active nests. A skilled surveyor would thus not be solely dependent on seeing the physical nest to assess a potential impact to an actively nesting bird. As such, Dr. Smallwood has mischaracterized the scope and purpose of the pre-construction surveys required by the IS/MND, which are in fact adequate to reduce impacts to potentially present avian species to a less than significant level.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species.

Comment B.14: MM BIO-4.1 claims that requiring treated windows for the south-facing aspect of the hotel would mitigate window collision impacts for birds. However, as Dr. Smallwood notes, this mitigation measure ignores the fact that "[t]he north aspect is where the greatest extent of windows would occur, and it is where the building would curve around northward to funnel bird traffic into windows, and it is where the TopGolf net would channel birds through a narrow gap between the unmarked net and the hotel's windows." (Ex. A, p. 35.) As such, MM BIO-4.1 is inadequate to mitigate window collision impacts.

Response B.14: Please see Response B.11 above for a detailed description of bird-safe design considerations related to this project.

Comment B.15: II. An EIR is required to disclose and the Project's significant indoor air quality impacts from emissions of formaldehyde.

The MND fails to address the significant health risks posed by the Project from formaldehyde, a toxic air contaminant ("TAC"). Certified Industrial Hygienist, Francis Offermann, PE, CIH, has conducted a review of the Project, the MND, and relevant documents regarding the Project's indoor air emissions. Mr. Offermann is one of the world's leading experts on indoor air quality, in particular emissions of formaldehyde, and has published extensively on the topic. As discussed below and set forth in Mr. Offermann's comments, the Project's emissions of formaldehyde to air will result in very significant cancer risks to future residents at the Project's apartments. Mr. Offermann's expert opinion and calculation present a "fair argument" that the Project may have significant health risk impacts as a result of these indoor air pollution emissions, which were not discussed, disclosed, or analyzed in the MND. These impacts must be addressed in an EIR. Mr. Offermann's comment and CV are attached as Exhibit B.

Formaldehyde is a known human carcinogen and listed by the State as a TAC. BAAQMD has established a significance threshold of health risks for carcinogenic TACs of 10 in a million and a cumulative health risk threshold of 100 in a million. The MND fails to acknowledge the significant indoor air emissions that will result from the Project. Specifically, there is no discussion of impacts or health risks, no analysis, and no identification of mitigations for significant emissions of formaldehyde to air from the Project.

Mr. Offermann explains that many composite wood products typically used building construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential, office, and retail building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. B, pp. 2-3.)

Mr. Offermann states that future employees of the Alviso Hotel will be exposed to a cancer risk from formaldehyde of approximately 17.7 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (Ex. A, p. 3.) This exceeds BAAQMD's CEQA significance thresholds for airborne cancer risk of 10 per million. (Id.)

Mr. Offermann concludes that these significant environmental impacts must be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (Ex. A, pp. 5, 11-13.) He prescribes a methodology for estimating the Project's formaldehyde emissions in order to do a more project-specific health risk assessment. (Id., pp. 6-9.). Mr. Offermann also suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. (Id., pp. 11-13.) Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. (Id.) Since the MND does not analyze this impact at all, none of these or other mitigation measures have been considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes substantial evidence that the project will have a significant adverse environmental impact. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. (See, e.g. Schenck v. County of Sonoma (2011) 198 Cal.App.4th 949, 960 [County applies Air District's "published CEQA quantitative criteria" and "threshold level of cumulative significance"]; see also Communities for a Better Environment v. California Resources Agency (2002) 103 Cal.App.4th 98, 110-111 ["A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"].) The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. (Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310, 327 ["As the District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact."].) Since expert evidence demonstrates that the Project will exceed the BAAQMD's CEQA significance threshold, there is substantial evidence that an "unstudied, potentially significant environmental effect[]" exists. (See Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist. (2016) 1 Cal.5th 937, 958 [emphasis added].) As a result, the City must prepare an EIR for the Project to address this impact and identify enforceable mitigation measures.

The failure of the MND to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist. (2015) 62 Cal.4th 369, 386 ("CBIA"). In that case, the Supreme Court expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project must be addressed under CEQA. At issue in CBIA was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (CBIA, 62 Cal.4th at 800-01.) However, to the extent a project may exacerbate existing environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (Id. at 801.) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on a project's users or residents that arise from the project's effects on the environment." (Id. at 800 [emphasis added].)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. People will be residing in and using the Project once it is built and begins emitting formaldehyde. Once built, the Project will begin to emit formaldehyde at levels that pose significant direct and cumulative health risks. The

Supreme Court in CBIA expressly finds that this type of air emission and health impact by the project on the environment and a "project's users and residents" must be addressed in the CEQA process. The existing TAC sources near the Project site would have to be considered in evaluating the cumulative effect on future residents of both the Project's TAC emissions as well as those existing off-site emissions.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.'" (CBIA, 62 Cal.4th at 800 [emphasis in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (Id., citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the thousands of future residents at the Project are human beings and the health and safety of those residents must be subjected to CEQA's safeguards.

The City has a duty to investigate issues relating to a project's potential environmental impacts. (See County Sanitation Dist. No. 2 v. County of Kern, (2005) 127 Cal.App.4th 1544, 1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) The proposed office buildings will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose future residents to cancer risks potentially in excess of BAAQMD's threshold of significance for cancer health risks of 10 in a million. Likewise, when combined with the risks posed by the nearby TAC sources, the health risks inside the project may exceed BAAQMD's cumulative health risk threshold of 100 cancers in a million. Currently, outside of Mr. Offermann's comments, the City does not have any idea what risks will be posed by formaldehyde emissions from the Project or the residences. As a result, the City must include an analysis and discussion in an EIR which discloses and analyzes the health risks that the Project's formaldehyde emissions may have on future residents and identifies appropriate mitigation measures.

Response B.15: The commenter is incorrect in stating that the BAAQMD significance threshold related to health risks for carcinogenic Toxic Air Contaminants (TACs) of 10 in a million and 100 in a million for cumulative health risk applies to indoor formaldehyde exposure. BAAQMD does not have an adopted threshold for formaldehyde exposure from indoor building sources. While BAAQMD recognizes formaldehyde as an outdoor TAC from automobile and truck exhaust, the BAAQMD CEQA guidelines do not define a specific threshold for formaldehyde, nor does it regulate indoor air quality. The commenter has provided no documentation to show that the TAC threshold of 10 in a million and 100 in a million for cumulative health risk applies to indoor formaldehyde exposure.

The California Supreme Court in a December 2015 opinion (*California Building Industry Association [CBIA] v. Bay Area Air Quality Management District*) confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project's future users or residents unless the project risks exacerbate those

environmental hazards or risks that already exist. The CBIA decision does state that CEQA applies to certain airport, school, and housing construction projects. The decision states "The environmental review must take into account – and a negative declaration or exemption cannot issue without considering – how existing environmental risks such as noise, hazardous waste, or wildland fire hazard will impact future residence or users of a project." Throughout the decision the Court was clear that the circumstances by which CEQA should assess the environment's impact on a project are the result of the project exacerbating an existing condition. Because there is no existing formaldehyde condition, there is no requirement to analyze the impact of the project's formaldehyde emissions on future site workers/site users because such impacts do not need to be considered under CEQA.

The proposed project would be built in accordance to the most recent California Green Building Code (CALGreen), which specifies that composite wood products (such as hardwood, plywood, and particleboard) meet the requirements for formaldehyde as specified in the California Air Resources Board's (CARBs) Air Toxic Control Measures. In addition, the project would be required to comply with the City's Green Building Ordinance (Policy 6-32) and would be designed to achieve minimum LEED certification. LEED certification will require measures to improve indoor air quality.

Furthermore, the commenter is speculating in the assertion that composite wood materials would be used in the interior of the building. Indoor building materials will not be known until the building permit stage, and as stated above, these materials will be required to comply with CARB, 2019 CalGreen building code, and LEED certification requirements. Lastly, even with the regulations in place, if materials containing formaldehyde were to be used, it would be speculative for the City to estimate the type and volume of building materials that may contain formaldehyde. Per Section 15145 of the CEQA guidelines, speculative analysis is not acceptable. Because there would be no way to quantify the off-gassing of materials, and because no thresholds exist, no additional CEQA analysis or mitigation measures related to formaldehyde would be required.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts associated with formaldehyde.

Comment B.16: III. An EIR is Required to Disclose and Mitigate the Project's Significant Air Quality Impacts from Emissions of Diesel Particulate Matter.

Matt Hagemann, P.G., C.Hg., and Dr. Paul E. Rosenfeld, Ph.D., of the environmental consulting firm SWAPE reviewed the MND's analysis of the Project's impacts on air quality. SWAPE's comment letter and CVs are attached as Exhibit C. As discussed below, SWAPE concluded that the MND failed to identify a significant impact from emissions of diesel particulate matter. As such, an EIR is required to disclose and mitigate this impact.

A. The MND failed to analyze the Project's operational and cumulative air quality impacts on human health from emissions of diesel particulate matter.

The MND's analysis of the cancer risk posed by emissions of diesel particulate matter was inadequate. Although the MND provided a quantitative analysis for emissions during construction of the Project (MND, p. 47), there was no quantitative analysis of the emissions resulting from operation of the Project. Instead, the MND relied on a qualitative analysis to conclude that "[p]roject traffic was not considered a source of substantial TACs [toxic air contaminants] or PM2.5." (MND, p. 44.) The MND's failure to conduct a quantified health risk assessment ("HRA") for the Project's operational emissions resulted in an inadequate evaluation of the Project's impacts and calls into question the MND's less-than-significant conclusion.

As noted by SWAPE, CEQA requires that that MND "correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. (Ex. C, p. 12.) However, such an analysis is not possible without a quantified HRA.

Furthermore, the failure of the MND to provide a quantified HRA is inconsistent with the most recent guidance of the Office of Environmental Health Hazard Assessment ("OEHHA"). (Ex. C, p. 12.) OEHHA recommends that exposure from projects lasting more than 6 months (e.g. the Project's future years of operation) be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR"). (Id.) OEHHA additionally recommends that agencies evaluate the cumulative impact of construction and operation of the Project combined. (Id. at p. 13.) Thus, a quantified HRA is necessary to ensure that operational and cumulative health risks are disclosed, compared to the applicable BAAQMD significance thresholds, and properly mitigated.

Response B.16: The Commenter incorrectly asserts that diesel emissions produced by the proposed project would cause significant health risks. In response to this claim about the project's traffic resulting in significant health risk impacts, the total project daily trips were modeled to further prove that the project's traffic does not pose a significant health risk. However, per Section 5.2.7 of the BAAQMD California Environmental Quality Act Air Quality Guidelines, dated May 2017, roads with less than 10,000 total vehicles per day and less than 1,000 trucks per day are categorized as minor, low impact sources that do not pose a significant health impact even in combination with other nearby sources. Therefore, this source can be excluded from the CEQA evaluation. The project would generate approximately 1,642 daily trips, which is well below the 10,000 daily vehicles per day threshold. Most of these trips would be made by light-duty automobiles (non-diesel vehicles) and these trips would be distributed among many roadways. Therefore, the Air Quality Analysis for the IS/MND complies with the BAAQMD's guidance.

To emphasize that there is no operational health impact as a result of the project, a project-specific refined dispersion model was completed to demonstrate that the project-caused cancer risks from operational traffic are negligible (refer to Attachment B to this document). This operational health risk assessment is consistent with California Office of Environmental Health Hazard (OEHHA) guidance and the results were compared against the BAAQMD threshold to show that the project would result in a less-than-significant health risk.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts associated with diesel particulate matter.

Comment B.17: B. SWAPE's analysis presents a fair argument that the Project will result in a potentially significant in a potentially significant impact to human health from emissions of diesel particulate matter.

SWAPE prepared a screening-level HRA to evaluate potential impacts to human health from diesel particulate matter emissions ("DPM") during operation of the Project. (Ex. C, pp. 14- 16.) SWAPE used AERSCREEN, the leading screening-level air quality dispersion model. (Id. At p. 14.) SWAPE used a sensitive receptor distance of 300 meters (i.e. the single family residences located near the Project site) and analyzed impacts to individuals at different stages of life based on OEHHA guidance. (Id. at pp. 15-16.)

SWAPE found that cumulative risks of construction and operation of the Project combined resulted in an excess cancer risk of approximately 12.2 in one million over the course of a residential lifetime (i.e. 30 years). (Ex. C, p. 16.) As SWAPE concluded, "the lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND." (Ex. C, p. 16.)

SWAPE's expert analysis of the Project's significant cancer risks established a fair argument that the Project may result in significant impacts. Under CEQA, SWAPE's fair argument requires that the City prepare an EIR to disclose and mitigate this impact.

Response B.17: As demonstrated in Response B.16 and discussed in Section 4.3 of the Initial Study, the health risk analysis completed for the project that includes emissions and dispersion modeling using appropriate models recommended by BAAQMD show less than significant health risk impacts. The Commenter's incorrect assertion that project risks would be significant relied on a screening level risk assessment performed by SWAPE. This screening level analysis is misleading and inaccurate.

First, SWAPE incorrectly assumes all emissions of PM10 exhaust from traffic is diesel particulate matter. This is not correct as most traffic associated with the project would be powered by gasoline that does not produce diesel particulate matter. The CalEEMod modeling output provided in Attachment 2 of Appendix A of the IS/MND that the commenter used to develop their diesel particulate matter emissions assumes that less than five percent of the traffic would be trucks. SWAPE's incorrect assumption leads to a large error in estimating project operational diesel particulate matter emissions.

The second error in the Commenter's analysis is that they assign all of these overestimated diesel particulate matter emissions to only the project site. This is incorrect because traffic emissions occur along the roadways where vehicles travel. According to the CalEEMod output in Attachment 2 of Appendix A of the IS/MND,

travel distances are 7.30 to 9.50 miles. So, 98 percent of these emissions occur more than 1,000 feet from the project site and away from the nearby sensitive receptors.

Finally, the SWAPE analysis relied upon a screening model, AERSCREEN, to inflate these results rather than using the more accurate AERMOD model that is recommended by BAAQMD. The AESCREEN model is a screening model that computes the maximum 1-hour concentration from a source and then applies a simple factor to estimate annual exposures. The model assumes that the source is continuous for every hour of the day for 365 days with adverse meteorological conditions that lead to conservatively high concentrations. AERSCREEN is a screening model that is recommended by U.S. EPA to identify the potential for impacts and not used to quantify significant impacts. If significant impacts are predicted using this model, then further analysis should be conducted. In addition, this model is inappropriate for modeling traffic sources.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts associated with diesel particulate matter.

Comment B.18: IV. The MND's Analysis of the Project's Air Quality Impacts Is Not Supported by Substantial Evidence.

SWAPE found that the MND underestimated the Project's emissions and therefore cannot be relied upon to determine the significant of the Project's air quality impacts. (Ex. C, p. 2.) The MND relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). (Id. at p. 1.) This model, which is used to generate a project's construction and operational emissions, relies on recommended default values based on site specific information related to a number of factors (Id., pp. 1-2.) CEQA requires that any changes to the default values must be justified by substantial evidence. (Id. at p. 1.)

SWAPE reviewed the Project's CalEEMod output files and found that the values input into the model were inconsistent with information provided in the MND. (Ex. C, p. 2.) This results in an underestimation of the Project's emissions. (Id.) As a result, an EIR should be prepared that adequately evaluates the Project's air quality impacts. (Id.)

Specifically, SWAPE found that the following values used in the MND's air quality analysis were either inconsistent with information provided in the MND or otherwise unjustified:
1. Underestimated Land Use Size (Ex. C, p. 2.)

Response B.18: Subsequent to preparation of the Air Quality analysis (Section 4.3 in the IS/MND) for the project, the proposed square footage of the hotel was modified slightly from 108,702 square feet to 112,463 square feet. In addition, both construction and operational criteria pollutant emissions and health risk impacts were computed as well below their respective thresholds in the Air Quality analysis. This addition of 3,761 square feet of floor area would not increase traffic (since trip generation is based on the number of hotel rooms, which did not change) and would have a negligible increase in emissions or health risk impacts. The minor change to

the project would not affect the conclusion or recommended mitigation measures contained in the IS/MND, and the comment does not provide any evidence to the contrary. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.19: 2. Unsubstantiated Changes to Construction Phase Lengths (Ex. C, pp. 2-4.)

Response B.19: As described in the Air Quality analysis (Attachment 2 of Appendix A to the IS/MND), project-specific construction information was used in the modeling rather than relying on CalEEMod model default conditions. These changes were based on the construction information sheet provided by the applicant that includes the project construction dates and duration in terms of workdays for each construction phase. The construction schedule and equipment list represent project-specific information that is deemed as substantial evidence, where use of default CalEEMod inputs would be inappropriate for this project. This information is contained in Attachment 2 of Appendix A to the IS/MND and does not need to be in the body of the report, as it was accurately captured in the CalEEMod modeling. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.20: 3. Underestimated Amount of Material Import (Ex. C, pp. 4-5.)

Response B.20: The IS/MND states that "grading of the site would import approximately 1,000 cubic yards of fill". The construction information sheet provided by the applicant (see Attachment 2 of Appendix A to the IS/MND) included 900 cubic yards of imported soil during the grading phase. These are approximate amounts, as the project is undergoing preliminary design and engineering. While the IS/MND reported an approximate amount that is close to the reported amount of imported soil, the 900 cubic yard amount calculated in CalEEMod is appropriate. The difference in emissions associated with these differences is negligible as it represents only 0.1 percent of all truck trips generated by construction. Therefore, the construction-related emissions as related to project material import was not underestimated. Again, the Commenter does not demonstrate that an additional 100 cubic yard of soil import would change the results of the assessment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.21: 4. Unsubstantiated Changes to Off-Road Construction Units/Hours (Ex. C, pp. 5-6.)

Response B.21: As described in Response B.20, the modeling inputs were project-specific, based on the construction information provided by the applicant. This information includes the quantity of project construction equipment needed along with the estimated number of days and average hours of operations for days that equipment is used. This information is provided in Attachment 2 of Appendix A to the IS/MND and does not need to be in the body of the report, as it was accurately captured in the CalEEMod modeling. This comment does not provide substantial

evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.22: 5. Underestimated Hauling Trip Number (Ex. C, pp. 6-7.)

Response B.22: Please refer to Response B.20. Both 1,000 cubic yards reported in the IS/MND and 900 cubic yards reported in Attachment 2 of Appendix A of the IS/MND are preliminary estimates. The difference of 100 cubic yards is negligible as it represents only 0.1 percent of all truck trips generated by construction. This would have no measurable effect on the results reported in the IS/MND. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.23: 6.Unsubstantiated Change to Wastewater Treatment Percentages (Ex. C, pp. 7-8.)

Response B.23: Wastewater treatment systems only cause indirect emissions of greenhouse gases and do not affect criteria air pollutant emissions. Default assignments of percentage of treatment type in CalEEMod reflect statewide averages and not conditions in San José. The CalEEMod model provides three options to enter for wastewater treatment: (1) through septic systems, (2) anerobic treatment, and (3) facultative lagoons. The septic systems and facultative lagoons are aerobic treatment techniques that typically occur in rural areas and not in urbanized San José or the project site in Alviso. The project plans do not include this treatment type. Wastewater would be treated at a municipal wastewater treatment plant. Biosolids removed from the wastewater treatment would be processed using anerobic digesters, but the treatment plant would capture these emissions. As a result, the difference in emissions from operation of the project with and without this change is minor. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.[2]

Comment B.24: 7. Incorrect Application of Tier 3 Mitigation (Ex. C, pp. 8-10.)

Response B.24: The CalEEMod modeling output provided in Attachment 2 of Appendix A in the IS/MND includes both unmitigated and mitigated emission levels (i.e., mitigated with Tier 3 equipment). Only the unmitigated emission levels from the model output were used to describe air quality impacts in the IS/MND. Mitigation for this impact was not required so levels associated with Tier 3 mitigation were not applied to the project. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.25: 8. Improper Application of Energy-Related Mitigation Measures (Ex. C, pp. 10-11.)

[2] Illingworth & Rodkin. Supplemental Air Quality Analysis Memo. December 17, 2021.

Response B.25: Reported energy GHG emissions in the IS/MND and Appendix A to the IS/MND are based on mitigated Operational emissions generated by CalEEMod and provided in Attachment 2 to Appendix A of the IS/MND. In order to account for San José Clean Energy's (SJCE) 100 percent carbon free renewable energy for projects operational after 2021, the modification had to be applied in the mitigated energy GHG emissions section. While the emissions in CalEEMod are reported as mitigation, they are not because the modifications to the CalEEMod model, shown as mitigation, are required by the City. In addition, the application of these mitigation measures does not change the conclusion of the significance finding for GHG emissions and climate change impacts. Additionally, as described in the IS/MND, the City has adopted a new qualified GHG Reduction Strategy for 2030 and an accompanying project compliance checklist. The IS/MND describes the projects consistency with the GHG Reduction Strategy on pages 98-104. As such, the project has a less than significant impact with respect to GHG emissions. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.26: As a result of these errors, the MND underestimates the Project's construction and operational emissions and cannot be relied upon to determine the significance of the Project's air quality impacts.

Response B.26: As described in the responses above, the comment letter does not provide substantial evidence supporting a fair argument that the IS/MND underestimates the project's construction and operational emissions. The analysis in the IS/MND is supported by substantial evidence and demonstrates that the project would result in less than significant air quality and GHG impacts.

Comment B.27: V. The MND's Analysis of the Project's Greenhouse Gas Impacts is Not Supported by Substantial Evidence.

The MND uses the City's 2030 Greenhouse Gas Reduction Strategy ("GHGRS") to analyze the Project's impacts related to greenhouse gases ("GHGs"). As the MND explained,

The 2030 GHGRS identifies required General Plan policies and strategies to be implemented by development projects in the areas of green building/energy use, multimodal transportation, water conservation, and solid waste reduction. Compliance with these mandatory policies and strategies and any voluntary measures proposed by the project ensure a project's consistency with the GHG Reduction Strategy.

(MND, p. 98.) The MND compared the Project to the GHGRS using a "Consistency Checklist" and concluded that the Project was consistent with all applicable policies/strategies and, therefore, that the Project's GHG impacts would be less than significant. (MND, pp. 98-104.) However, a closer look at the Consistency Checklist reveals that several consistency determinations are unfounded or otherwise unjustified. (See Ex. C, pp. 17-23.)

Response B.27: The GHGRS identifies seven strategies to reduce GHG emissions to achieve the City's 2030 target (refer to page 10 of the GHGRS Compliance Checklist

in Appendix J of the IS/MND). These strategies are in order of calculated MTCO2e/year reductions. For instance, GHGRS #1 (implementation of the San José Clean Energy program) is estimated to result in an approximately 655,104 MTCO2e/year reduction in GHG emissions (page 55 of the GHGRS), or approximately 55 percent of the total emissions reductions per year for the City. The GHGRS Compliance Checklist serves as a guide to help the City understand which GHGRS strategies new development would achieve. Implementation of applicable reduction actions in new development projects will help the City achieve incremental reductions toward its 2030 GHG emissions target. As described in the 2030 GHGRS, these GHG reductions will occur through a combination of City initiatives in various plans and policies and will provide reductions from both existing and new developments. The 2030 GHGRS leverages other important City plans and policies; including the General Plan, Climate Smart San José, and the City Municipal Code in identifying reductions strategies that achieve the City's target.

The purpose of the GHGRS Compliance Checklist is to provide a streamlined review process for proposed new development projects subject to discretionary review and environmental review under CEQA. The Compliance Checklist serves as a tool to measure how well a project achieves the strategies of the GHGRS, as applicable. Projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. Consistency with Table A, Strategy 1 (Consistency with the Land Use/Transportation Diagram [Land Use and Density]) and compliance with Table B (2030 Greenhouse Gas Reduction Strategy Compliance) are the primary basis for determining consistency with the GHGRS. Consistency with Table A, Strategy 1 is particularly important for determining consistency because projects that are consistent with the Land Use/Transportation Diagram have already been accounted for in the 2030 GHGRS emissions and growth projections.

Based on a review of the project plans and the GHGRS Compliance Checklist completed for the project, the City has determined that the project is consistent with the GHGRS and, therefore, would not result in significant impacts related to GHG emissions. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.28: For example, MS-2.7 requires that the Project "[e]ncourage the installation of solar panels or other clean energy power generation sources over parking areas." (MND, p. 99 [emphasis added].) The MND states that "[t]he project would not include solar panels over the parking garage" yet then concludes that the Project is nevertheless consistent with MS-2.7. (Id.) Without solar panels over the Project's parking garage, the Project is not consistent with MS-2.7.

Response B.28: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. The intent of Policy MS-2.7 is to encourage projects to install solar panels onsite and to provide shaded parking areas, thus providing a dual benefit of generating clean energy and also preventing wasteful

energy use through the unnecessary cooling of vehicles that would otherwise park in direct sunlight. As described on page 98 of the IS/MND, the project includes solar panels on the rooftop of the hotel building as well as a multi-story parking garage that allows the majority of vehicles parked on the site to be shaded. The project, therefore, is consistent with the intent (and GHG emissions reductions) of Policy MS-2.7. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.29: The MND applies the same faulty logic to MS-2.2 which requires the Project to "[e]ncourage maximized use of on-site generation of renewable energy for all new and existing buildings." (Id.) The MND concludes that the Project is consistent with MS-2.2 yet makes no mention of the fat that solar panels are not required over the parking garage. (Id.) The MND claims that Project is consistent with MS-2.2 because "[t]he project applicant is committed to the project being compliant with all mandatory applicable state and local green building and energy codes." (Id.) Again, there is no basis for concluding that the Project is consistent with MS-2.2 when solar panels are not required over the garage and where compliance is assumed based on the applicant doing the bare minimum by complying with state and local regulation. (See Ex. C, pp. 17-18.)

Response B.29: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described on page 98 of the IS/MND, the project includes solar panels on the rooftop of the hotel building and is therefore consistent with Policy MS-2.2. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.30: The MND also concludes that the Project will be consistent with several measures on the Consistency Checklist based on speculative performance of non-mandatory measures by the applicant in the future. For example, MS-16.2 requires that the Project "[p]romote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances." (MND, p. 99.) The MND concludes the Project is consistent because the applicant is "committed . . . towards supporting neighborhood-based distributed clean/ renewable energy generation when it becomes available in the area." (Id. [emphasis added].) In other words, the MND is concluding the Project is consistent based on something that it admits does not exist yet. (Ex. C, pp.18-19.)

Response B.30: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the comment, the text of Policy MS-16.2 is to "[p]romote neighborhood- based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances." The key word in the text is "promote", as the policy is intended for the City to promote and/or support neighborhood-based programs. The policy does not require individual projects to establish or even participate in these programs. Since these programs are not yet available in the project area, the applicant has committed to working with the City and adjoining property owners to support these programs in the future. The project is, therefore, consistent with this policy. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.31: Similarly, the MND concludes the Project is consistent with TR-7.1 and TR-8.5, which are related to traffic and parking, because the project would develop a transportation demand management ("TDM") plan in the future. (MND, pp. 101-02.) However, as noted by SWAPE, the MND makes no mention of requiring a TDM plan or what the elements of such a plan would be. (Ex. C, pp. 20-21.) Without knowing the details of these purported future events, the MND lacked any basis for concluding the Project was consistent with the GHGRS.

Response B.31: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. The text in the IS/MND stating that the project would develop a TDM plan is incorrect. The text of the IS/MND will be revised to remove such references (refer to Section 4.0 Initial Study Text Revisions, below). The revised text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis.

Policy TR-7.1 is not applicable to the project since the proposed hotel would include 20 employees and would not qualify as a "large employer". The City defines a small infill for office land use (which the hotel use is equivalent to) as 10,000 square feet, which is roughly equivalent to 30 employees based on the Institute of Transportation Engineer's rates. Therefore, the project's proposed 20 employees would fall within the City's small infill screening criteria.

The text of Policy TR-8.5 is "[p]romote participation in car share programs to minimize the need for parking spaces in new and existing development." The project includes a large entrance passenger loading zone, which facilitates and promotes the use of taxis, private vehicle transport, and rideshare services for guests to access the hotel without cars thereby reducing the need for an abundance of hotel guest parking spaces. Additionally, the project is located in proximity to transit services and bicycle facilities, and includes dedicated onsite bicycle parking, thus further reducing the need for employee vehicle parking spaces on the site. The project, therefore, is consistent with the intent of Policy TR-8.5. The text in Table 4.3-3 of the IS/MND, which describes the project's consistency with the GHGRS, will be revised accordingly (refer to Section 4.0 Initial Study Text Revisions, below). The revised text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis.

Comment B.32: In addition to the above examples, SWAPE has outlined each alleged defect with the GHGRS Checklist in their comment letter. (Ex. C, pp. 17-23.) SWAPE's overall conclusion was that "the IS/MND fails to provide sufficient information and analysis to determine Project consistency with all of the measures required by the GHGRS." (Id. at p. 23.) Without more information, the MND's conclusion that the Project is consistent with the GHGRS and, therefore, that the Project's GHG impacts are less than significant is not supported by substantial evidence.

Response B.32: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the responses above, the IS/MND provides substantial evidence of the project's consistency with the GHGRS, thus supporting the conclusion of a less than significant impact. The comment letter

does not provide substantial evidence supporting a fair argument that the project would be inconsistent with the GHGRS, or that the project would result in a significant GHG impact.

Comment B.33: CONCLUSION

LIUNA's experts have established a fair argument that the Project may have significant impacts on biological resources and air quality. Furthermore, the MND's analyses of impacts to biological resources, air quality, and greenhouse gases are not supported by substantial evidence. Therefore, LIUNA respectfully requests that the City prepare and circulate an EIR for the Alviso Hotel Project prior to approval of the Project.

Response B.33: As described in the responses above, the IS/MND provides substantial evidence supporting the conclusion that the project would not result in significant unavoidable environmental impacts. The comment letter does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

COMMENT B.34: EXHIBIT A LETTER MEMORANDUM PREPARED BY SHAWN SMALLWOOD, PH.D

Response B.34: Exhibit A to the comment letter contains the full text of a letter memorandum prepared by Shawn Smallwood, Ph.D. The contents of the letter memorandum are to a large extent summarized in the comment letter above. Where comments in the letter memorandum have already been summarized in the comment letter and responded to above, further responses in this document may refer back to previous responses.

Comment B.35: I write to comment on the draft Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Alviso Hotel Project south of North First Street and north of Highway 237 in the Alviso area of San José (City of San José 2021). I understand this project would add 112,463 square feet of floor space in a 5-story hotel building and a 4- story parking garage on 6.23 acres. Unfortunately, the analysis of baseline conditions is incomplete and flawed, and the impacts analysis neglects potential impacts to wildlife that are both substantial and significant, including from glass windows and traffic.

My qualifications for assessing habitat and identifying potential impacts to wildlife are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, interactions between wildlife and human infrastructure and activities, and conservation of rare and endangered species. I authored numerous papers on wildlife conservation. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as Biological Conservation, and I was on the Editorial Board of Environmental Management. I have surveyed for wildlife in California for 36 years. My CV is attached.

SITE VISIT

I visited the site of the proposed project for 115 minutes starting at 07:26 hours on 30 October 2021. Using binoculars, I scanned for wildlife from the Guadalupe River Trail. Conditions were overcast with coastal fog and mild temperature with no wind. My survey happened to coincide with the Dia de Los Muertos Run-walk, the 500 participants of which likely suppressed the number of wildlife species I could detect. The site was covered by annual grasses, salt grass (Distichlis spicata), alkali heath (Frankenia salina) and pickleweed (Salicornia pacifica) with a few coyote bush (Baccharis pilularis), other shrubs and a palm. On the north side of the project site was a brightly lit building with a 170-foot tall, unmarked net, and on the south side was a homeless encampment (Photos 1 and 2).

Photos 1 and 2. Views of the project site looking northeast (top) and east (bottom), 30 October 2021. The net on the north side of the project site belongs to the Topgolf facility that was recently built.

I saw multiple species of birds, including special-status species, on the project site and flying through the airspace over and next to the project site. Just north of the site I saw a flock of about 200 California brown pelicans (Photo 3), and many Canada geese flew over and near the site (Photo 4). Double-crested cormorants flew over the site (Photo 5), as did California gulls and herring gulls (Photos 6 and 7). A white-tailed kite hunted right next to the site (Photos 8 and 9). Greater

yellowlegs and black phoebe foraged on the site (Photos 10 and 11), as did hundreds of white-crowned sparrows, golden- crowned sparrows, Lincoln's sparrows, and savannah sparrows (Photo 12). I also saw black-tailed jackrabbit on the site (Photo 13) as well as feral house cats (Photo 14).

Altogether, I detected 34 species of vertebrate wildlife, including at least 8 special-status species (9 if the blackbirds were tricolored blackbirds or yellow-headed blackbirds) (Table 1).

Photo 3. Twenty-one of about 200 California brown pelicans just north of the project site, 30 October 2021.

Photo 4. One of multiple flocks of Canada goose that flew over or by the project site on 30 October 2021.

Photo 5. One of multiple flocks of double-crested cormorants that flew over or by the project site on 30 October 2021.

Photos 6 and 7. One of multiple California gulls (left) and herring gulls (right) that flew over or by the project site on 30 October 2021.

Photos 8 and 9. White-tailed kite foraging next to the project site on 30 October 2021.

Photos 10 and 11. Greater yellowlegs (left) and black phoebe (right) on the project site, 30 October 2021.

Photo 12. Fifty-six sparrows composed of white-crowned sparrow, golden-crowned sparrow and savannah sparrow, and 1 lesser goldfinch, 30 October 2021.

Photos 13 and 14. Black-tailed jackrabbit (left) and feral house cat (right) on the project site, 30 October 2021.

In addition to my site visit, I reviewed an Initial Study/Mitigated Negative Declaration that had been prepared for a Topgolf facility and hotel on the same property as the Aviso Hotel Project (Harvey & Associates 2016). Harvey & Associates performed biological surveys of the site on 29 June and 9 December 2015. Methodological details were not reported, and results were vaguely reported. As far as I could discern, Table 2 includes an additional 23 species of vertebrate wildlife that I did not detect on 30 October 2021. Between the Harvey & Associates surveys and my survey, at least 67 species of vertebrate wildlife were detected at the site, including at least 12 special-status species.

My detections of 34 species of vertebrate wildlife should be interpreted within the context of my survey effort. As the additional species detections from the Harvey & Associates' surveys confirm,

the results of one reconnaissance-level survey qualify as thin empirical foundation for characterizing the environmental setting of a proposed project site. Such surveys better serve as starting points toward characterization of a site's wildlife community. With only so many species detectable in the short time I had to perform visual-scan surveys on 30 October 2021, I would have been remiss to have reported that only 34 species of wildlife occur in the area. However, when surveys are diligently performed, and when outcomes are analyzed appropriately and fully reported, the number of species detected within the survey effort can inform of the number of species likely to be detected with a larger survey effort during the same time of year. This potential is of critical importance when making determinations about occurrence likelihoods of special-status species, which I will discuss further below.

Table 1. *Species of vertebrate wildlife I detected at the project site, 30 October 2021.*

Common name	Species name	Status[1]	Note
House cat	*Felis catus*	Non-native	I counted 5
California ground squirrel	*Otospermophilus beecheyi*		On site
Black-tailed jackrabbit	*Lepus californicus*		Visible early morning
Canada goose	*Branta canadensis*		Multiple flocks
Mallard	*Anas platyrhynchos*		Pairs and flocks
American coot	*Fulica americana*		On Guadalupe River
California brown pelican	*Pelicanus occidentalis californicus*	CFP	200 just north
Double-crested cormorant	*Phalacrocorax auritus*	WL	Multiple flocks
Great egret	*Ardea alba*		Flyover
Snowy Egret	*Egretta thula*		Flyby
Turkey vulture	*Cathartes aura*	BOP	Flyover
Red-tailed hawk	*Buteo jamaicensis*	BOP	Perched nearby
White-tailed kite	*Elanus leucurus*	CFP, BOP	Hunted adjacent to site
Mourning dove	*Zenaida macroura*		Multiple fly-throughs
Rock pigeon	*Columba livia*	Non-native	1 flew over
Anna's hummingbird	*Calypte anna*		Harassing sparrows
Greater yellowlegs	*Tringa melanoleuca*		On pond
Herring gull	*Larus argentatus*		Flyover
California gull	*Larus californicus*	BCC, WL	Flyover
Western gull	*Larus occidentalis*	BCC	Flyover
Black phoebe	*Sayornis nigricans*		Hunted site
European starling	*Sturnus vulgaris*	Non-native	Flock flew over
Common raven	*Corvus corax*		Flyovers and stop-overs
American crow	*Corvus brachyrhynchos*		Flyovers and stop-overs
Yellow-rumped warbler	*Dendroica coronata*		On site
California towhee	*Pipilo crissalis*		On site
Golden-crowned sparrow	*Zonotrichia atricapilla*		On site
White-crowned sparrow	*Zonotrichia leucophrys*		On site
Lincoln's sparrow	*Melospiza lincolni*		On site
Bryant's savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC[3]	On site
Great-tailed grackle	*Quiscalus mexicanus*		Flyover
Blackbirds	*Agelaius sp.*		Flyover
Lesser goldfinch	*Carduelis psaltria*		On site
American goldfinch	*Carduelis tristis*		On site

[1] See Table 2 for definitions of Status acronyms.

Table 2. Additional species of vertebrate wildlife reported at the project site and its pre-Topgolf neighbor in 2015.

Common name	Species name	Status[1]
Western fence lizard	*Sceloporus occidentalis*	
Gopher snake	*Pituophis melanoleucus*	
Common garter snake	*Thamnophis sirtalis*	
Striped skunk	*Mephitis mephitis*	
Raccoon	*Procyon lotor*	
Western harvest mouse	*Reithrodontomys megalotis*	
House mouse	*Mus musculus*	Non-native
California vole	*Microtus californicus*	
Great blue heron	*Ardea herodius*	
Northern harrier	*Circus cyaneus*	BCC, SSC_3
Cooper's hawk	*Accipiter cooperi*	BOP, WL
American kestrel	*Falco sparverius*	BOP
Barn owl	*Tyto alba*	BOP
Cliff swallow	*Petrochelidon pyrrhonota*	
Barn swallow	*Hirundo rustica*	
Bushtit	*Psaltriparus minimus*	
American robin	*Turdus migratorius*	
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	BCC, SSC_3
Alameda song sparrow	*Melospiza melodia pusillula*	SSC_2
Western meadowlark	*Sturnella neglecta*	
Red-winged blackbird	*Agelaius phoeniceus*	
Brewer's blackbird	*Euphagus cyanocephalus*	
House finch	*Haemorhous mexicanus*	

[1] See Table 2 for definitions of Status acronyms.

By recording when I detected each species, I was able to forecast the number of species likely to be detected with a longer effort using the same visual scan method. Figure 1 shows my cumulative counts of species detected with increasing time into both of my surveys. Just as I have seen for many other survey efforts, a nonlinear regression model fit the data very well, explaining 99% of the variation in the data, and the model showed progress towards the inevitable asymptote of the number of species detectable over a longer time period using the same survey method. In the case of this project site, my model predicted I would have eventually detected another 20 species, or 54 species of vertebrate wildlife in total, had I continued the survey using the same method on 30 October 2021.

I could have detected many more species than predicted by also performing surveys at other times of day to detect nocturnal and crepuscular species, or surveys in different seasons and years to detect migrants and species with multi-annual cycles of abundance, or surveys of different methods such as se of acoustic detectors or thermal-imaging for bats, owls, and nocturnally migratory birds, and live-trapping for small mammals. As it was, I detected 34 species. My reconnaissance-level survey, performed carefully and analyzed appropriately, informs me that the site and its surrounds is rich in volant wildlife. What my survey data do not inform me, and what detection surveys could, is which of the potentially occurring special-status species actually occur at the site in addition to those I had the good fortune to detect.

The likelihood of detecting special-status species is typically lower than that of more common species. This difference can be explained by rarity of special-status species, which also tend to be more cryptic, fossorial, or active during nocturnal periods when reconnaissance surveys are not performed. Another useful relationship from careful recording of species detections and subsequent comparative analysis is the probability of detection of listed species as a function of an increasing number of vertebrate wildlife species detected (Figure 2). (Note that listed species number fewer than special-status species, which are inclusive of listed species.) As had been demonstrated in Figure 1, the number of species detected is largely a function of survey effort. Therefore, greater survey effort increases the likelihood that listed species will be detected (which is the first tenet of detection

surveys for special-status species). Based on the outcomes of 152 previous surveys that I performed at sites of proposed projects, my survey effort at the project site carried a 43% chance of detecting a listed species and a 13% chance of detecting 2 listed species (Figure 2). As it turned out, I detected 2 listed species (California brown pelican and white-tailed kite) this time, although both were just outside the project boundary. WRA (2020) Detected 10 species of vertebrate wildlife, so their survey effort carried only a 12.5% chance of detecting a listed species and a 3% chance of detecting 2 listed species.

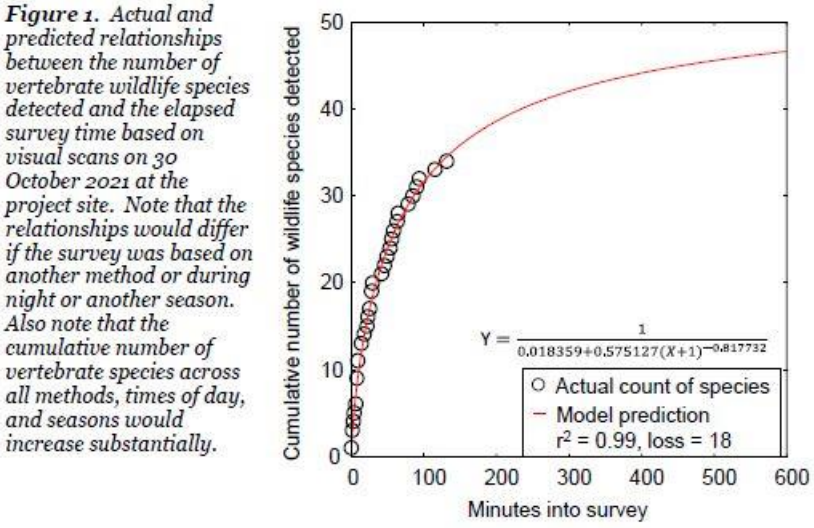


Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual scans on 30 October 2021 at the project site. Note that the relationships would differ if the survey was based on another method or during night or another season. Also note that the cumulative number of vertebrate species across all methods, times of day, and seasons would increase substantially.*

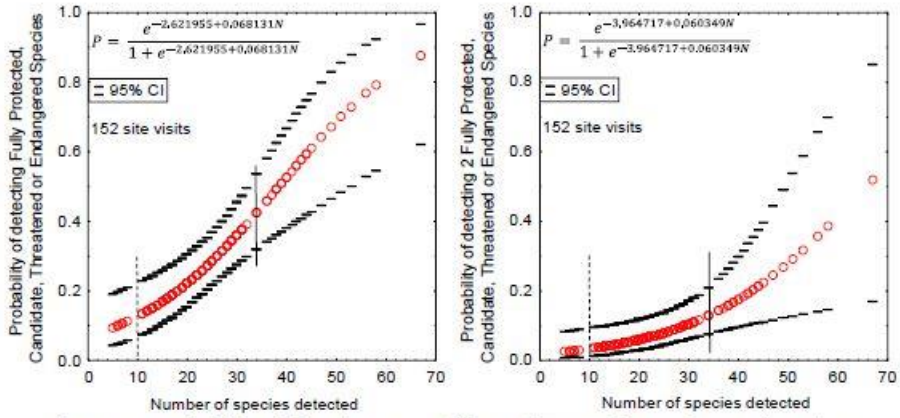


Figure 2. *Probability of detecting ≥1 Candidate, Threatened or Endangered Species of wildlife listed under California or federal Endangered Species Acts, based on survey outcomes that I logit-regressed on the number of wildlife species I detected as an expert witness during 152 site visits across California. Dashed vertical lines represent the numbers of species detected at the project site by WRA and solid vertical lines represent the numbers I detected on 30 October 2021.*

Response B.35: Please refer to Response B.2, B.4, and B.6 for additional discussion of the wildlife survey completed for the IS/MND. For the purposes of CEQA, the survey effort completed by WRA is sufficient to conduct an analysis of significance. Site visits for CEQA-level biological assessments are often conducted in one day for a site of this type and size, and are not expected to detect all species that could potentially occur on a site. Rather, reconnaissance-level surveys observe species largely opportunistically and focus predominantly on describing available habitat features that could support special-status or protected common species. WRA's

survey effort in the context of this project was not to detect every possible species in the region; but it was sufficient to make potential determinations based on habitat, and is thus sufficient for a CEQA-level analysis. The IS/MND accurately described the potential for special-status species (as defined under CEQA) to utilize the site. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.36: EXISTING ENVIRONMENTAL CONDITIONS

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. Methods to achieve this first step typically include surveys of the site for biological resources and reviews of literature, data bases and local experts for documented occurrences of special-status species. The IS/MND, however, is both incomplete and inaccurate in its characterization of the environmental setting as it relates to wildlife. The summary of ground cover is misleading. The survey of the site for biological resources was too cursory. The supporting review of literature and data bases was also much too cursory. I found additional problems with the premises used to determine occurrence likelihoods, and with the interpretation of available information. I will comment on these problems, but first I will comment on the biological resources survey.

Based on WRA's (2020) report, the IS/MND claims that 48% of the site is developed. This is not true. The so-called developed portion of the site was graded, but not developed. Developed land begins with the imposition of impervious surface, and often includes building structures. Graded land without impervious surface can support vegetation and wildlife, and it does so at this project site. The land at issue at the project site was temporarily disturbed, but it is not developed.

Response B.36: Please see Response B.4 above, which addresses this comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.37: In support of the IS/MND, WRA (2020) performed a biological resources survey at the site on 17 December 2019. Other than reporting the date of the survey, that it was traversed on foot, and its three objectives, WRA (2020) neglected to report the most basic information needed to assess the rigor of the biological survey. Decision-makers and the public ought to be informed about how many biologists performed the survey, names and qualifications of survey personnel, time of day the survey took place, how long the survey lasted, and which specific methods were used. Consumers of the IS/MND need to know these fundamentals because as I pointed out earlier, the number of wildlife species detected is largely a function of survey effort. WRA (2020) should have reported the level of effort committed to the project site and the methods used.

WRA reported their detections of 10 species of vertebrate wildlife. Given the 34 species I saw at the site during my <2-hour visit, and given the 41 or more species detected by Harvey & Associates (2016) over 2 surveys in 2015, I am astounded that the WRA biologist(s) who surveyed the site in 2019 detected a mere 10 species of wildlife (WRA 2020). WRA detected less than a third of the species I detected within a grassland/marsh filled with the sights and sounds of wildlife. WRA

detected less than a fourth of the species characterized at the site by Harvey & Associates (2016). Within 9 minutes of my arrival the site, I detected more species of wildlife than did WRA. Why were the outcomes of my survey and the surveys of Harvey & Associates so different from WRA's? Without knowing how WRA performed their survey or who did it, I am at a loss for explanation. But I can conclude that the wildlife community of the project site is incompletely and inaccurately characterized in the IS/MND. I can also conclude that the biological resources survey provided an unacceptably poor basis for an analysis of potential project impacts to wildlife.

The IS/MND (page 58) states, "No special-status birds were observed within the project area during the site assessment." This statement exemplifies pseudoscience. It might be true on its face, but it represents a grossly deficient survey. Something is amiss with WRA's survey outcome, perhaps due to insufficient survey effort, or survey by an unqualified person, or survey at the wrong time of day. In my experience, so long as survey efforts and methods used are roughly equivalent between surveys, multiple surveys of a site tend to result in the same numbers of species and the same numbers of special-status species. It is not credible to have detected no special-status species of birds, whereas Harvey & Associates (2016) and I detected 13 special-status bird species on the site and another special-status species of bird just north of the site.

> **Response B.37:** Please see Responses B.4, above, which addresses a summarized version of this comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.38: The literature and database reviews were also much too cursory to support an analysis of potential project impacts. WRA reported no interviews with local experts. Although other sources were listed by WRA, it appeared to me that the only source used was California Natural Diversity Data Base (CNDDB). CNDDB can be a helpful resource, but it is not the only resource available, nor is it the best resource for certain taxa such as birds. Whereas WRA (2020:12) reported, "42 special-status wildlife species have been recorded in the vicinity of the project area," my reviews of eBird and iNaturalist combined with my own surveys in the area reveal 87 special-status species of wildlife known to occur in the area (Table 3).

The cursory approach taken by WRA resulted in many odd contradictions between WRA's occurrence-likelihood determinations and what members of the public have reported seeing at and near the project site. Of the 15 species that WRA determined to have no chance of occurrence or unlikely to occur, 1 was seen on site, 6 were reported in eBird within a mile or so of the site, and 2 species were reported within several miles (Table 3). Of the 68 special-status species that appear in Table 3 but which were not addressed by WRA, 13 have been detected at the project site, 38 have been detected within 1 mile of the site, and another 24 have been reportedly detected within several miles of the site. Again, the incomplete review of available information has left the characterization of the project site's wildlife community incomplete and inaccurate.

Earlier I mentioned that I would comment on additional problems I noticed with WRA's analysis of species' occurrence likelihoods. Here forth I add those comments.

According to WRA (2020:8), "The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species." But in fact, WRA relied on the

outcome of their site visit to determine presence and absence of species – just what WRA (2020) said they would not do. As WRA (2020:7) explained, "The December 2019 site visit was conducted to search for suitable habitats for listed species. Habitat conditions observed at the project area were used to evaluate the potential for presence of listed species based on these searches..." Thus, the site visit was intended to determine species presence or absence.

An even more clear example of the WRA survey being used to conclude species' absence could be found in the IS/MND. According to the IS/MND (page 68), "no tricolored blackbirds were observed within or immediately adjacent to the project site during the site survey conducted during the breeding season, and the species is determined to be absent." WRA's survey was on 17 December 2019, which was not during the breeding season. The IS/MND's finding is factually incorrect. More importantly, the IS/MND's finding contradicts WRA's assurance that "The site visit does not constitute a protocol- level survey and is not intended to determine the actual presence or absence of a species." The IS/MND's conclusion about tricolored blackbird presence was unfounded and misleading. WRA's assurance proved empty, but it was not the only empty assurance.

Although CNDDB was reportedly not used to determine occurrence likelihoods other than to confirm presence based on existing CNDDB records of a species on the project site (WRS 2020:7-8), absence of CNDDB records was used to determine no potential and unlikely occurrence likelihoods for multiple species (see WRA 2020: App. C). However, using CNDDB records this way was inappropriate because this was not what CNDDB was designed to do. Lack of CNDDB records does not mean a species is absent from a site nor from the area around the site. Consulting CNDDB is fine for confirming presence of a species, but it is inappropriate for determining absence and hence to narrow a list of potentially occurring species. CNDDB relies on voluntary reporting, but

Table 3. Occurrence likelihoods of special-status species as determined by site visits (by Harvey & Associates or myself) or reports to eBird (https://eBird.org) and iNaturalist (https://www.inaturalist.org/observations).

Species	*Scientific name*	Status[1]	Data base, Site visits	Occurrence likelihood	
				WRA	KSS
Western pond turtle	*Actinemys pallida*	SSC	Nearby	Unlikely	Possible
Brant	*Branta bernicla*	SSC_2	Nearby		Possible
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	WL	Nearby		Possible
Redhead	*Aythya americana*	SSC_2	Very close		Probable
Clark's grebe	*Aechmophorus clarkii*	BCC	Very close		Probable
Western grebe	*Aechmophorus occidentalis*	BCC	Very close		Probable
Double-crested cormorant	*Phalacrocorax auritus*	WL	On site		Certain
Brandt's cormorant	*Phalacrocorax penicillatus*	BCC	Very close		Probable
American white pelican	*Pelecanus erythrorhynchos*	SSC_1	Very close		Probable
California brown pelican	*Pelecanus occidentalis californicus*	CFP	Very close		Probable
Turkey vulture	*Cathartes aura*	BOP	On site		Certain
Osprey	*Pandion haliaetus*	WL, BOP	Very close		Probable
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP	Very close	Unlikely	Probable
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CFP	Very close		Probable
Red-tailed hawk	*Buteo jamaicensis*	BOP	On site		Certain
Red-shouldered hawk	*Buteo lineatus*	BOP	Very close		Probable
Ferruginous hawk	*Buteo regalis*	BCC, WL, BOP	Very close		Probable
Swainson's hawk	*Buteo swainsoni*	BCC, CT, BOP	Very close	No potential	Probable
Sharp-shinned hawk	*Accipiter striatus*	BOP, WL	Very close		Probable
Cooper's hawk	*Accipiter cooperi*	BOP, WL	On site		Certain
Northern harrier	*Circus cyaneus*	SSC_3, BOP	On site	Moderate	Certain
White-tailed kite	*Elanus leucurus*	CFP, WL, BOP	On site	Moderate	Certain
American kestrel	*Falco sparverius*	BOP	On site		Certain
Merlin	*Falco columbarius*	BOP, WL	Very close		Probable
Peregrine falcon	*Falco peregrinus*	CFP, BCC, BOP	Very close	Unlikely	Probable
Prairie falcon	*Falco mexicanus*	BCC, WL, BOP	Very close		Probable
Sandhill crane	*Grus c. canadensis*	CT, CFP, SSC_3	Nearby		Possible
Snowy plover	*Charadrius alexandrinus*	FT, BCC, SSC	Nearby	No potential	Possible
Black oystercatcher	*Haematopus bachmani*	BCC	Nearby		Possible
Willet	*Tringa semipalmata*	BCC	Very close		Probable

Species	*Scientific name*	Status[1]	Data base, Site visits	Occurrence likelihood	
				WRA	KSS
Whimbrel	*Numenius phaeopus*	BCC	Very close		Probable
Long-billed curlew	*Numenius americanus*	BCC, WL	Very close		Probable
Marbled godwit	*Limosa fedua*	BCC	Very close		Probable
Red knot	*Calidris canutus*	BCC	Very close		Probable
Short-billed dowitcher	*Limnodromus griseus*	BCC	Very close		Probable
Heermann's gull	*Larus heermannii*	BCC	Nearby		Possible
California gull	*Larus californicus*	WL	On site		Certain
Western gull	*Larus occidentalis*	BCC	On site		Certain
Caspian tern	*Hydroprogne caspia*	WL	Very close		Probable
Elegant tern	*Thalasseus elegans*	BCC	Very close		Probable
Black tern	*Chlidonias niger*	BCC, SSC_2	Very close		Probable
California least tern	*Sternula antillarum browni*	FE, CE	Very close	No potential	Probable
Black skimmer	*Rynchops niger*	BCC, SSC_3	Very close	No potential	Possible
Western burrowing owl	*Athene cunicularia*	BCC, SSC_2, BOP	Very close	Moderate	Probable
Barn owl	*Tyto alba*	BOP	On site		Certain
Great-horned owl	*Bubo virginianus*	BOP	Nearby		Probable
Short-eared owl	*Asio flammeus*	BCC, SSC_3, BOP	Very close		Probable
Long-eared owl	*Asio otus*	BCC, SSC_3, BOP	Nearby		Possible
Western screech-owl	*Megascops kennicotti*	BOP	Nearby		Probable
Northern pygmy-owl	*Glaucidium gnoma*	BOP	Nearby		Possible
Black swift	*Cypseloides niger*	BCC, SSC_3	Nearby		Possible
Vaux's swift	*Chaetura vauxi*	SCC_2	Very close		Probable
Purple martin	*Progne subis*	SCC_2	Nearby		Possible
Allen's hummingbird	*Selasphorus sasin*	BCC	Nearby		Possible
Rufous hummingbird	*Selasphorus rufus*	BCC	Nearby		Probable
Costa's hummingbird	*Calypte costae*	BCC	In region		Possible
Nuttall's woodpecker	*Picoides nuttallii*	BCC	Very close		Probable
Olive-sided flycatcher	*Contopus cooperi*	SSC_2	Nearby		Possible
Willow flycatcher	*Empidonax traillii*	CE, BCC	Very close		Probable
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC_2	Nearby		Possible
Oak titmouse	*Baeolophus inornatus*	BCC	Very close		Probable
Wrentit	*Chamaea fasciata*	BCC	Nearby		Possible

Species	*Scientific name*	Status[1]	Data base, Site visits	Occurrence likelihood	
				WRA	KSS
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC_2	Very close		Probable
California thrasher	*Toxostoma redivivum*	BCC	Nearby		Possible
Yellow-billed magpie	*Pica nuttalli*	BCC	Nearby		Possible
Yellow warbler	*Setophaga petechia*	BCC, SSC_2	Very close		Probable
Yellow-breasted chat	*Icteria virens*	SSC_3	Nearby		Possible
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	BCC, SSC_3	On site	Moderate	Certain
Bryant's savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC_3	On site		Certain
Vesper sparrow	*Pooecetes gramineus affinis*	SSC_2	Nearby		Possible
Alameda song sparrow	*Melospiza melodia pusillula*	SSC_2	On site	Unlikely	Certain
Grasshopper sparrow	*Ammodramus savannarum*	SSC_2	Nearby		Possible
Tricolored blackbird	*Agelaius tricolor*	CT, BCC	Very close	Unlikely	Probable
Yellow-headed blackbird	*X. xanthocephalus*	SSC_3	Very close		Probable
Bullock's oriole	*Icterus bullockii*	BCC	Very close		Probable
Lawrence's goldfinch	*Carduelis lawrencei*	BCC	nearby		Possible
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H	In region	Unlikely	Possible
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H	In region	No potential	Possible
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H	In region		Possible
Fringed myotis	*Myotis thysanodes*	WBWG:H	In range		Possible
Yuma myotis	*Myotis yumanesis*	WBWG:H	In region		Possible
Long-legged myotis	*Myotis volans*	WBWG:M	In region		Possible
Miller's myotis	*Myotis evotis*	WBWG:M	In region	Unlikely	Possible
Western small-footed myotis	*Myotis ciliabrum*	WBWG:M	In region		Possible
Hoary bat	*Lasiurus cinereus*	WBWG:M	In region	No potential	Possible
Salt-marsh wandering shrew	*Sorex vagrans halicoetes*	SSC	No records	Unlikely	Possible
Salt marsh harvest mouse	*Reithrodontomys raviventris*	FE, CE, CFP	In region	Unlikely	Possible

[1] Listed as BCC = U.S. Fish and Wildlife Service Bird Species of Conservation Concern, CE = California endangered, CT = California threatened, CFP = California Fully Protected (California Fish and Game Code 3511), BOP = California Fish and Game Code 3503.5 (Birds of prey), and SSC_1, SSC_2 and SSC_3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and WL = Taxa to Watch List (Shuford and Gardali 2008).

not on scientific sampling or access to all properties. The limitations of CNDDB are well-known, and summarized by California Department of Fish and Wildlife in a warning presented on its CNDDB web site (https://wildlife.ca.gov/Data/CNDDB/ Maps-and-Data): "We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers…" WRA's use of CNDDB records as a standard condition for determining species are unlikely to occur or have no potential to occur is inconsistent with CNDDB's purpose and therefore pseudoscientific.

Response B.38: While the analysis in the IS/MND relied on the CNDDB for supporting information in making species determinations, particularly when it comes to current ranges of special-status species (i.e., those with a state or federal formal listing, or with CDFW fully protected or species of special concern designations), the CNDDB results did not comprise the entirety of the habitat assessment. Probabilities of occurrence are based on habitat conditions observed during a site visit and knowledge of the life history of special-status species, as was the case with this project. Simply, if habitat for a species was not present and, additionally, it was documented in the vicinity, it was determined to be variably unlikely or have no potential to occur. Thus, the use of the CNDDB is not "pseudoscientific", but rather represents consultation with a valuable source of information in conjunction with the knowledge of biological experts and observations of existing conditions at the site.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.39: Another flaw in WRA's analysis of occurrence likelihoods was its premise was that only impacts to breeding habitat qualify as significant impacts. For multiple species, such as for peregrine falcon and tricolored blackbird, WRA (2020) contrives a distinction between nesting habitat and non-nesting habitat. WRA then states that because nesting substrate needed by the species is unavailable at the project site, the species cannot breed there and thus project impacts would be less than significant. In reality, all of a species' habitat is of critical importance to the species regardless of where breeding sites are located. After all, no matter where a species breeds, members of the species cannot breed successfully without also surviving migration and the non-breeding season. Animals cannot breed successfully with insufficient forage or opportunities for stopover refugia during migration or opportunities for staging areas or for mate-selection and all the other functions the animal must perform to successfully breed. Species for which WRA determined occurrence likelihood based on whether it would breed on site were inaccurately and incompletely characterized as part of the wildlife community at the project site.

My determinations of species occurrence likelihoods are much more optimistic, and I believe more accurate, than those of WRA. Of the special-status species in Table 3, I conclude 13 certainly occur at the site, 40 probably occur, and 34 possibly occur. Of the 6 species WRA determined to have no chance of occurring, I conclude 3 are possible and 3 are probable. With additional site visits, I am confident that I could replace most of the many possible and probable occurrence likelihoods with certainty of occurrence of special-status species listed in Table 3. Existing conditions at the site have not been sufficiently nor accurately characterized – not by me and mostly certainly not by WRA nor the IS/MND. There is at least a fair argument to be made for the need to prepare an EIR to more accurately and thoroughly characterize the environmental setting in support of the impacts analysis that is needed for the project.

Response B.39: The commenter's determination of species occurrence likelihoods is far too inclusive and is inconsistent with the standards used under CEQA. While the presence of breeding habitat is indeed not the only consideration when determining a species' likelihood to occur, a species' fleeting presence on the site via a flyover or brief foraging visit is also not sufficient to suggest that a species will be impacted by project activities. The threshold for CEQA significance is generally considered to be founded on the potential for a project to result in large-scale or otherwise appreciable disruptions to the life history of a species that is dependent on resources within the project area. In this case, the project area is a relatively small patch of mostly disturbed/ruderal land cover in a largely urban matrix, and higher-quality habitat for almost all species groups is present nearby. Many of the species which Dr. Smallwood contests are likely to utilize the project area are species that may fly over the project area or could briefly forage there if dispersing through the vicinity. CEQA-level analyses would not typically consider these species to be impacted by a project, and that holds true in this case. It is not a reasonable argument to suggest that the development of a previously graded area will have substantial effects on the available biological resources in the vicinity. Additionally, as discussed in detail in Response B.2, Dr. Smallwood includes many species in his analysis that would not typically be considered special-status and thus are not addressed further in this

response. Lastly, WRA and the City reaffirm that, based on observations of habitat in the field, determinations made in the IS/MND remain valid. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.40: BIOLOGICAL IMPACTS ANALYSIS

The IS/MND provides no serious analysis of potential impacts to biological resources caused by habitat loss, window collision mortality, nor automobile collision mortality. A serious analysis of these impacts would begin with predictions of the magnitudes of the impacts. The IS/MND provides no such predictions, but I do so in the following comments.

HABITAT LOSS

Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity (Smallwood 2015). For example, two study sites in grassland/wetland/woodland complexes had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Applying this density to the project site, 34.3 nests/acre multiplied against 6.23 acres would predict a loss of 214 bird nests. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, then the project would prevent the production of 621 fledglings per year. After 100 years and assuming an average generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from the following formula: {(nests/year × chicks/nest × number of years) + ((2 adults/nest × nests/year)× (number of years ÷ years/generation))}. In the case of this project, this formula predicts the project would deny California 70,660 birds over the next century due solely to loss of terrestrial habitat. This predicted loss would be substantial, and would qualify as significant impacts that have yet to be addressed by the IS/MND. A fair argument can be made for the need to prepare an EIR to appropriately analyze potential project impacts to wildlife.

Response B.40: Please see Response B.8 above, which addresses this comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.41: Additional habitat loss can be expected from artificial light pollution that would emanate from the project. The IS/MND dismisses this impact by claiming that lighting from the project would not exceed the ambient light of neighboring projects. This is an interesting claim because light pollution from neighboring projects appeared substantial to me when I arrived to the project site early on the morning of 30 October 2021. The project site was lit by floodlamps directed right at it from the TopGolf facility (see Photos 15 and 16). The TopGolf lights were so bright that the poles supporting the 170- foot-tall net were brightly lit right next to the project site (Photo 16). The light reaching the marsh on the project site likely degraded the habitat there for multiple species of wildlife. The added lights of the hotel would add to this degradation.

In its report of potential impacts of the TopGolf facility, Harvey & Associates (2016:32) wrote, "The photometric plan shows that no light will travel beyond the property line (shown as 0.0). Thus, impacts from increased lighting would be less than significant." What I saw of the light management

at the project site was just as contrary to Harvey & Associates' assurance as was the IS/MND's depiction of the moon north rather than south of the TopGolf facility (Photo 15).

Despite the false claim that half the site is developed (WRA 2020), which it clearly is not, the proposed project would take habitat and it would further degrade what little habitat would remain next to Guadalupe River. It would reduce the productive capacity of birds and other wildlife, many species of which are special-status species. There is at least a fair argument to be made for the need to prepare an EIR to more carefully and appropriately analyze potential impacts to wildlife that would be caused by habitat loss, habitat fragmentation, and habitat degradation.

Photos 15 and 16. *Depiction of the TopGolf site's illumination at night, according to the IS/MND prepared for the TopGolf project (top), and the actual type of illumination visible on the morning of 30 October 2021 (bottom). The lights on the building were sufficiently powerful to illuminate the poles supporting the net at the southern end of the project, and when I first arrived, the site of the proposed project was also lit by the TopGolf project. The lights appeared much brighter than could be shown in a photo. Note also that the moon would never occur where the IS/MND depicted it, which was north of the project.*

Response B.41: The comment discusses lighting from the existing TopGolf development adjacent to the project site. The Topgolf project is not the subject of the IS/MND prepared for the Alviso Hotel project. The proposed project would comply with lighting restrictions as detailed in the City of San Jose Downtown Design

Guidelines and City Council Policy 6-34 (Riparian Corridor Protection and Bird-Safe Design). These restrictions include turning lights off during nighttime hours or during assumed high volume migration periods to prevent attraction and confusion of birds in nearby marsh areas, prohibitions of lights pointing directly skyward, and more. Although Dr. Smallwood observed illumination of the TopGolf facility during the day, this practice is not in violation of any regulations to which developments in this area are subject and is unlikely to cause undue disturbance to movements of wildlife. The comment provides no evidence to support the assertion that "…habitat loss can be expected from artificial light pollution that would emanate from the project." For a discussion of the lack of habitat loss that will result from this project, please see Response B.8. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.42: WILDLIFE MOVEMENT

The IS/MND does not really analyze the project's potential impacts to wildlife movement in the region. Instead, it addresses bird-window collision mortality. On page 63, it explains "The project site is in the vicinity of known avian breeding and migratory habitat. Building features, most often those associated with lighting or glass components (i.e., glazing), can attract birds from these nearby habitats and cause mortality in the form of collisions resulting from confusion." Following this strange shifting of issues from wildlife movement to bird-window collisions, the IS/MND discusses building design standards and how they relate to bird-window collision mortality.

In the above quoted statement, the IS/MND acknowledges that the project site is in the vicinity of migratory birds. It is on a major corridor on a major migratory route known as the Pacific Flyway. The project site is located right where the western and eastern shores of the San Francisco Bay funnel shore-hugging migratory birds toward their passage through the Santa Clara Valley. City of San Jose (2014) estimate that more than a million birds pass through greater San Jose each year. The project is proposed right where many of these birds likely pass during migration, and these are birds protected by the Migratory Bird Treaty Act, the recently amended California Fish and Game Code 3513 intended to further protect migratory birds, and additional statues that protect many of these species (see Table 3). A fair argument can be made for the need to prepare an EIR to appropriately analyze potential project impacts to wildlife movement in the region.

Response B.42: Please see Response B.9 above, which addresses this comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.43: ROAD MORTALITY

As will be described below, a basis for predicting wildlife mortality can be found in the prediction of annual vehicle miles traveled (VMT). According to the IS/MND (page 82), the project would generate an annual VMT of 599,330. The traffic analysis, however, predicts the project would generate 1,642 daily trips (pages 165-167). One of these predictions must be in error, because 1,642 daily trips × 365 days in the year = 599,330, which would mean the average miles per trip would be 1. Either the traffic analysis is wrong or the fuel use analysis is wrong, but it is not my role to

comment on these issues. For my issue, I will assume 15 miles per trip and 25 miles per trip as the bounds of a range representing the average number of miles per trip.

These vehicle trips – however far they would actually average -- would kill wildlife (Photos 17 through 19). A fundamental shortfall of the IS/MND is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including species such as western pond turtle (Actinemys pallida), American badger (Taxidea taxus), California red-legged frog (Rana draytonii) and California tiger salamander (Ambystoma californiense) among many others. Many animals that would be killed by the traffic generated from this project would be located far from the project's construction footprint; they would be crossing roads traversed from cars and trucks originating from or headed toward the project site. The project's impacts on wildlife would reach as far from the project as cars and trucks travel to or from the project site. Despite the obvious risk to wildlife, and despite the multiple papers and books written about this type of impact and how to mitigate them, the IS/MND does not address impacts to wildlife caused by vehicles traveling to and from the project site.

Photo 17. *A Gambel's quail dashes across a road on 3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

Photo 18. *A mourning dove killed by vehicle traffic on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 19. *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America, traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 33 miles from the project site, along a 2.5 mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study right next to Vasco Road (Brown et al. 2016). The Brown et al. (2016) adjustment factors were similar to those for carcass persistence of road fatalities (Santos et al. 2011). Applying searcher detection rates estimated from carcass detection trials performed at a wind energy project immediately adjacent to this same stretch of road (Brown et al. 2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the road. This fatality number translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic on roads within the City of San Jose and the South Bay Area would similarly result in intense local impacts on wildlife.

Predicting project-generated traffic impacts to wildlife

The IS/MND predicts that the project would generate 1,642 trips per day. Assuming 15 to 25 miles per trip, annual VMT would be 8,989,950 to 14,983,250. This would be a lot of mileage to be driven at great peril to wildlife that must cross roads to go about their business of foraging, patrolling home ranges, dispersing and migrating. But it can also serve as a basis for predicting impacts to wildlife.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although despite the nearness of the Mendelsohn et al. (2009) study to the project site, it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species).

During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the low and high ends of the annual VMT predicted above, I predict the project would cause 4,926 to 8,210 wildlife fatalities per year. Operations over 50 years would accumulate 246,300 to 410,500 wildlife fatalities. It remains unknown whether and to what degree vehicle tires contribute to carcass removals from the roadway, thereby contributing a negative bias to the fatality estimates I made from the Mendelsohn et al. (2009) fatality counts.

Based on my assumptions and simple calculations, the project-generated traffic would cause substantial, significant impacts to wildlife. There is at least a fair argument that can be made for the need to prepare an EIR to analyze this impact. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project.

Response B.43: The comment estimates the number of animals killed per year from vehicles travelling to and from the project area. The data upon which the comment is based is from a study of road mortality along a 2.5 mile stretch of Vasco Road in Contra Costa County. Vasco Road is located in a rural, undeveloped area, and traverses the Diablo Range. The rate of mortalities of animals along this stretch of road cannot be meaningfully compared to the project, which is located in an urban area surrounded by development. Vehicles travelling to and from the site would utilize roads in highly urbanized areas. The comment provides no evidence that special status species have been killed on the urban roadways that would be utilized by vehicles travelling to and from the site. Furthermore, it would be speculative to try and estimate the number of wildlife individuals (special status or otherwise) that would be injured or killed based purely on the additional vehicle trips from the proposed project as opposed to existing traffic or new trips from other development projects. Per Section 15145 of the CEQA guidelines, speculative analysis is not acceptable. Lastly, although the project and its proponents will seek to minimize incidences of traffic-related mortality of all species, the threshold for CEQA significance is not applicable to non-status species unless the project would have a regional impact on the viability of the species or species group. No reasonable argument can be made that vehicle traffic to and from the work area will have an impact of this kind, and thus the impact cannot be considered significant under CEQA. The Initial Study adequately addresses the project's impacts to biological resources. The comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to special status species as a result of roadway mortality.

Comment B.44: BIRD-WINDOW COLLISION MORTALITY

Inserting multi-storied buildings onto the project site would intercept some portion of the birds flying through the project's airspace, and would otherwise interfere with movement of volant wildlife. It is also important to note that the hotel and garage buildings would be built next to an existing 170-foot tall net that surrounds the TopGolf facility. The combination of the TopGolf net and the project's buildings would pose a formidable barrier to wildlife trying to migrate along the Guadalupe River

corridor and the greater Pacific Flyway. It would also pose formidable cumulative effects of collision mortality because TopGolf's net and its supporting guy cables remain unmarked and therefore difficult for birds to see and avoid.

According to the CEQA review prepared for the TopGolf facility, the net surrounding the facility was supposed to be visible to birds. Harvey & Associates (2016:43) assured, "Net marking devices, such as FireFlys (http://www.slatercom.com/datasheets/PR- Firefly.pdf) or BirdMark BM-AG (After Glow) (http://www.slatercom.com/datasheets/PR- BirdMark.pdf) that glow in the dark will be placed along all sections of the netting perimeter rope and rib lines, to form vertical rows of flight diverters in the center of each area of netting between support poles. The maximum distance between such marking devices, and/or between such marking devices and support poles, will be 15 ft." According to the IS/MND (p. 100) prepared for the TopGolf project, "Net marking devices, such as FireFlys or BirdMark BM-AG, shall be placed along all sections of the netting perimeter rope and rib lines to form vertical rows of flight diverters in the center of each area of netting between support poles. The maximum distance between such marking devices, and/or between such marking devices and support poles, shall be 15 feet. [Less Than Significant Impact With Mitigation]" The markers identified for use in the TopGolf IS/MND are shown in Figure 3. I did not see any of these markers on TopGolf's net, nor do any of them appear in Photo 16.

Figure 3. *Line markers identified in the TopGolf IS/MND for deployment on the net surrounding the project site, but which in fact did not occur during my site visit on 30 October 2021. The unmarked net and all of its supporting guy cables were unmarked and difficult to see against a sky background. Against the backdrop of a glass-facaded building, these nets and guy cables might prove even more difficult for birds to see.*

Photo 4.4-3: Examples of net marking devices

Response B.44: In June 2019, the City completed an Addendum to the MND for the Topgolf @ Terra Project which evaluated a proposed change in the project to modify the mitigation measure requiring net marking devices. The mitigation measure (MM BIO-7.1) was modified to include an additional mitigation option (MM BIO-7.2) which allows implementation of a Monitoring Plan and Adaptive Management/Remedial Measures in lieu of installing net marking devices as prescribed in MM BIO-7.1. The Addendum is available at the Department of Planning, Building & Code Enforcement upon request, and does not affect the Initial study prepared for this project.

Comment B.45: TopGolf's net, which poses a serious collision risk to migratory and resident birds, is likely even more dangerous without the promised marking devices. If the hotel project is constructed as proposed, then windows of the hotel would be only 23 m from TopGolf's net. There

could be a visual interaction effect between the net and the hotel's windows that increases collision risk. There would likely be a severe funneling bird traffic between TopGolf's net and the hotel.

> **Response B.45:** Please see Response B.44, above, with regard to marking devices on the TopGolf nets. Please additionally see Response B.11 above for a detailed discussion of the building features described in this comment and the relative bird collision risk thereof. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.46: One of the most prominent features of the proposed hotel building is its liberal use of structural glass on its facades. Renderings of the building depict facades composed of extensive transparent and reflective glass. The project as depicted would introduce substantial collision hazards to an aerosphere that currently provides critically important habitat to birds, and which would act as lethal traps to flying birds. The IS/MND claims that non-reflective glass would be used, but the renderings of the project in the same document depict reflective glass on the hotel.

Window collisions are often characterized as either the second or third largest source or human-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively.

However, these estimates were likely biased too low, because they were based on opportunistic sampling, volunteer study participation, fatality monitoring by more inexperienced than experienced searchers, and usually no adjustments made for scavenger removals of carcasses before searchers could detect them (Bracey et al. 2016).

Hundreds of thousands of birds migrate along the Pacific Flyway. My observations during my visit to the site confirmed that birds fly through the airspace of the project, even during the nonmigratory season. At least 75 special-status species of bird are known to the project area (Table 3). According to the scientific literature, most of the special-status species in Table 3 have been documented as window collision fatalities and are therefore susceptible to new structural glass installations (Supplemental Material to Basilio et al. 2020; Smallwood unpublished review). Many more species of migratory birds, newly protected by California's revised Fish and Game Code section 3513, have also been documented as window collision victims (Basilio et al. 2020).

I am concerned about the extent and context of glass proposed for the project. Recent advances in structural glass engineering have contributed to a proliferation of glass windows on building façades. This proliferation is readily observable in newer buildings and in recent project planning documents, and it is represented by a worldwide 20% increase in glass manufacturing for building construction since 2016. Glass markets in the USA experienced 5% growth in both 2011 and 2016, and was forecast to grow 2.3% per year since 2016 (TMCapital 2019). Increasing window to wall ratios and glass façades have become popular for multiple reasons, including a growing demand for 'daylighting.' Consistent with the trends just outlined, and as highlighted in the IS/MND's renderings of the project, glass windows comprise a major feature of the proposed project.

The proposed hotel could be designed to be safter to birds. The depictions of the building's façades are inconsistent with standards identified in Bird-Safe Guidelines I have reviewed. The depictions of the project show that large windows would reflect outdoor vegetation, and large transparent windows would give birds the false sense of open space. WRA (2020) provides a brief analysis of bird-window collision impacts, but touches on only a few of the known causal factors. As I will show in the next section, many birds can be expected to be killed by the many large windows of the proposed project. A fair argument can be made for the need to prepare an EIR to adequately address this potential impact.

Project Impact Prediction

Predicting the impacts caused by loss of aerial habitat and the energetic costs of birds having to navigate around the buildings is possible, but I am unprepared to make such predictions. However, I am prepared to predict bird-window collision mortality. By the time of these comments I had reviewed and processed results of bird collision monitoring at 213 buildings and façades for which bird collisions per m2 of glass per year could be calculated and averaged (Johnson and Hudson 1976, O'Connell 2001, Somerlot 2003, Hager et al. 2008, Borden et al. 2010, Hager et al. 2013, Porter and Huang 2015, Parkins et al. 2015, Kahle et al. 2016, Ocampo-Peñuela et al. 2016, Sabo et al. 2016, Barton et al. 2017, Gomez-Moreno et al. 2018, Schneider et al. 2018, Loss et al. 2019, Brown et al. 2020, City of Portland Bureau of Environmental Services and Portland Audubon 2020, Riding et al. 2020). These study results averaged 0.073 bird deaths per m2 of glass per year (95% CI: 0.042-0.102). Based on schematics of the project in the IS/MND, I estimated the proposed medical office building would include at least 2,661 m2 of glass panels, which applied to the mean fatality rate would predict at least 195 bird deaths per year (95% CI: 115-274) at the building. The 100-year toll from this average annual fatality rate would be at least 19,452 bird deaths (95% CI: 11,549-27,355). These estimates would be perhaps 3 times higher after accounting for the proportions of fatalities removed by scavengers or missed by fatality searchers where studies have been performed. Collision fatalities would continue until the buildings are either renovated to reduce bird collisions or they come down. If the project moves forward as proposed, and annually kills 195 birds protected by state and federal laws, then the project would cause significant unmitigated impacts.

Bird-Window Collision Factors

Below is a list of collision factors I found in the scientific literature, and which I suggest ought to be used to improve San Jose's Bird-Safe Guidelines. Following this list are specific notes and findings taken from the literature and my own experience.

(1) Inherent hazard of a structure in the airspace used for nocturnal migration or other flights
(2) Window transparency, falsely revealing passage through structure or to indoor plants
(3) Window reflectance, falsely depicting vegetation, competitors, or open airspace
(4) Black hole or passage effect
(5) Window or façade extent, or proportion of façade consisting of window or other reflective surface
(6) Size of window
(7) Type of glass
(8) Lighting, which is correlated with window extent and building operations
(9) Height of structure (collision mechanisms shift with height above ground)

(10) Orientation of façade with respect to winds and solar exposure
(11) Structural layout causing confusion and entrapment
(12) Context in terms of urban-rural gradient, or surrounding extent of impervious surface vs vegetation
(13) Height, structure, and extent of vegetation grown near home or building
(14) Presence of birdfeeders or other attractants
(15) Relative abundance
(16) Season of the year
(17) Ecology, demography and behavior
(18) Predatory attacks or cues provoking fear of attack
(19) Aggressive social interactions

(1) Inherent hazard of structure in airspace.—Not all of a structure's collision risk can be attributed to windows. Overing (1938) reported 576 birds collided with the Washington Monument in 90 minutes on one night, 12 September 1937. The average annual fatality count had been 328 birds from 1932 through 1936. Gelb and Delacretaz (2009) and Klem et al. (2009) also reported finding collision victims at buildings lacking windows, although many fewer than they found at buildings fitted with widows. The takeaway is that any building going up at the project site would likely kill birds, although mortality would increase with larger expanses of glass.

(2) Window transparency.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the transparency of glass used in windows on the buildings (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred where transparent windows revealed interior vegetation.

(3) Window reflectance.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the reflectance of glass used in windows on the buildings (Klem 1989). Reflectance can deceptively depict open airspace, vegetation as habitat destination, or competitive rivals as self-images (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred toward the lower parts of buildings where large glass exteriors reflected outdoor vegetation. Klem et al. (2009) and Borden et al. (2010) also found that reflected outdoor vegetation associated positively with collisions.

(4) Black hole or passage effect.—Although this factor was not often mentioned in the bird-window collision literature, it was suggested in Sheppard and Phillips (2015). The black hole or passage effect is the deceptive appearance of a cavity or darkened ledge that certain species of bird typically approach with speed when seeking roosting sites. The deception is achieved when shadows from awnings or the interior light conditions give the appearance of cavities or protected ledges. This factor appears potentially to be nuanced variations on transparency or reflectance or possibly an interaction effect of both of these factors.

(5) Window or façade extent.—Klem et al. (2009), Borden et al. (2010), Hager et al. (2013), Ocampo-Peñuela et al. (2016), Loss et al. (2019), Rebolo-Ifrán et al. (2019), and Riding et al. (2020) reported increased collision fatalities at buildings with larger reflective façades or higher proportions of façades composed of windows. However, Porter and Huang (2015) found a negative relationship between fatalities found and proportion of façade that was glazed.

(6) Size of window.—According to Kahle et al. (2016), collision rates were higher on large-pane windows compared to small-pane windows.

(7) Type of glass.—Klem et al. (2009) found that collision fatalities associated with the type of glass used on buildings. Otherwise, little attention has been directed towards the types of glass in buildings.

(8) Lighting.—Parkins et al. (2015) found that light emission from buildings correlated positively with percent glass on the façade, suggesting that lighting is linked to the extent of windows. Zink and Eckles (2010) reported fatality reductions, including an 80% reduction at a Chicago high-rise, upon the initiation of the Lights-out Program. However, Zink and Eckles (2010) provided no information on their search effort, such as the number of searches or search interval or search area around each building.

(9) Height of structure.—Except for Riding et al. (2020), I found little if any hypothesis- testing related to building height, including whether another suite of factors might relate to collision victims of high-rises. Are migrants more commonly the victims of high-rises or of smaller buildings? Some of the most notorious buildings are low-rise buildings.

(10) Orientation of façade.—Some studies tested façade orientation, but not convincingly. Some evidence that orientation affects collision rates was provided by Winton et al. (2018). Confounding factors such as the extent and types of windows would require large sample sizes of collision victims to parse out the variation so that some portion of it could be attributed to orientation of façade. Whether certain orientations cause disproportionately stronger or more realistic-appearing reflections ought to be testable through measurement, but counting dead birds under façades of different orientations would help.

(11) Structural layout.—Bird-safe building guidelines have illustrated examples of structural layouts associated with high rates of bird-window collisions, but little attention has been directed towards hazardous structural layouts in the scientific literature. An exception was Johnson and Hudson (1976), who found high collision rates at 3 stories of glassed-in walkways atop an open breezeway, located on a break in slope with trees on one side of the structure and open sky on the other, Washington State University.

(12) Context in urban-rural gradient.—Numbers of fatalities found in monitoring have associated negatively with increasing developed area surrounding the building (Hager et al. 2013), and positively with more rural settings (Kummer et al. 2016).

(13) Height, structure and extent of vegetation near building.—Correlations have sometimes been found between collision rates and the presence or extent of vegetation near windows (Hager et al. 2008, Borden et al. 2010, Kummer et al. 2016, Ocampo- Peñuela et al. 2016). However, Porter and Huang (2015) found a negative relationship between fatalities found and vegetation cover near the building. In my experience, what probably matters most is the distance from the building that vegetation occurs. If the vegetation that is used by birds is very close to a glass façade, then birds coming from that glass will be less likely to attain sufficient speed upon arrival at the façade to result in a fatal injury. Too far away and there is probably no relationship. But 30 to 50 m away, and birds alighting from vegetation can attain lethal speeds by the time they arrive at the windows.

(14) Presence of birdfeeders.—Dunn (1993) reported a weak correlation ($r = 0.13$, $P < 0.001$) between number of birds killed by home windows and the number of birds counted at feeders. However, Kummer and Bayne (2015) found that experimental installment of birdfeeders at homes increased bird collisions with windows 1.84-fold.

(15) Relative abundance.—Collision rates have often been assumed to increase with local density or relative abundance (Klem 1989), and positive correlations have been measured (Dunn 1993, Hager et al. 2008). However, Hager and Craig (2014) found a negative correlation between fatality rates and relative abundance near buildings.

(16) Season of the year.—Borden et al. (2010) found 90% of collision fatalities during spring and fall migration periods. The significance of this finding is magnified by 7-day carcass persistence rates of 0.45 and 0.35 in spring and fall, rates which were considerably lower than during winter and summer (Hager et al. 2012). In other words, the concentration of fatalities during migration seasons would increase after applying seasonally-explicit adjustments for carcass persistence. Fatalities caused by collisions into the glass façades of the project's building would likely be concentrated in fall and spring migration periods.

(17) Ecology, demography and behavior.—Klem (1989) noted that certain types of birds were not found as common window-caused fatalities, including soaring hawks and waterbirds. Cusa et al. (2015) found that species colliding with buildings surrounded by higher levels of urban greenery were foliage gleaners, and species colliding with buildings surrounded by higher levels of urbanization were ground foragers. Sabo et al. (2016) found no difference in age class, but did find that migrants are more susceptible to collision than resident birds.

(18) Predatory attacks.—Panic flights caused by raptors were mentioned in 16% of window strike reports in Dunn's (1993) study. I have witnessed Cooper's hawks chasing birds into windows, including house finches next door to my home and a northern mocking bird chased directly into my office window. Predatory birds likely to collide with the project's windows would include Peregrine falcon, red-shouldered hawk, Cooper's hawk, and sharp-shinned hawk.

(19) Aggressive social interactions.—I found no hypothesis-testing of the roles of aggressive social interactions in the literature other than the occasional anecdotal account of birds attacking their self-images reflected from windows. However, I have witnessed birds chasing each other and sometimes these chases resulting in one of the birds hitting a window.

For most of the known or suspected collision risk factors, the proposed project's design would either contribute amply to collision risk, or its contribution remains unknown due to insufficient reporting of existing environmental conditions and project design (Table 4). Focused study of birds in the area could reduce the uncertainty of potential project impacts. Such studies could make use of radar (Gauthreaux et al. 2008) or visual scan surveys (Smallwood 2017). Key information useful for impacts assessment and mitigation would include intensity and timing of bird traffic, heights above ground, travel trajectories, and specific behaviors of birds in flight.

Table 4. Window collision risk factors, their weightings based on the scientific literature, and the level of risk introduced by the proposed project.

Collision risk to volant wildlife		
Factor	**Weighting**	**Added by project**
Inherent hazard of structure	Universal	Amply
Window transparency	Very high	Amply
Window reflectance	Very high	Amply
Black hole or passage effect	High	Possible with reflection of TopGolf net
Window or façade extent	Very high	Amply
Size of window	High	Amply
Type of glass	High	Likely but unknown
Lighting	High	Amply
Height of structure	High	Amply
Orientation of façade	Unknown	Amply
Structural layout	High	Amply with funnel effect
Context in urban-rural gradient	Likely high	Amply
Height, structure and extent of vegetation near building	High	Amply
Presence of birdfeeders	Moderate	Unknown
Relative abundance	Uncertain	Amply
Season of the year	Nonspatial	Not applicable
Ecology, demography and behavior	Uncertain	Amply
Predatory attacks	Uncertain	Unknown
Aggressive social interactions	Uncertain	Unknown

Window Collision Solutions

Given the magnitude of bird-window collision impacts, there are obviously great opportunities for reducing and minimizing these impacts going forward. Existing structures can be modified or retrofitted to reduce impacts, and proposed new structures can be more carefully sited, designed, and managed to minimize impacts. However, the costs of some of these measures can be high and can vary greatly, but most importantly the efficacies of many of these measures remain uncertain. Both the costs and effectiveness of all of these measures can be better understood through experimentation and careful scientific investigation. Post-construction fatality monitoring should be an essential feature of any new building project. Below is a listing of mitigation options, along with some notes and findings from the literature.

Any new project should be informed by preconstruction surveys of daytime and nocturnal flight activity. Such surveys can reveal the one or more façades facing the prevailing approach direction of birds, and these revelations can help prioritize where certain types of mitigation can be targeted. It is critical to formulate effective measures prior to construction, because post-construction options will be limited, likely more expensive, and probably less effective.

(1) Retrofitting to reduce impacts
(1A) Marking windows
(1B) Managing outdoor landscape vegetation
(1C) Managing indoor landscape vegetation (1D) Managing nocturnal lighting

(1A) Marking windows.— Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 69% after placing decals on windows. In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86

fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film. At the building with fritted glass, bird collisions were 82% lower than at other buildings with untreated windows. Kahle et al. (2016) added external window shades to some windowed façades to reduce fatalities 82% and 95%. Brown et al. (2020) reported an 84% lower collision probability among fritted glass windows and windows treated with ORNILUX R UV. City of Portland Bureau of Environmental Services and Portland Audubon (2020) reduced bird collision fatalities 94% by affixing marked Solyx window film to existing glass panels of Portland's Columbia Building. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015).

Following up on the results of Johnson and Hudson (1976), I decided to mark windows of my home, where I have documented 5 bird collision fatalities between the time I moved in and 6 years later. I marked my windows with decals delivered to me via US Postal Service from a commercial vendor. I have documented no fatalities at my windows during the 10 years hence. In my assessment, markers can be effective in some situations.

(2) Siting and Designing to minimize impacts
(2A) Deciding on location of structure
(2B) Deciding on façade and orientation (2C) Selecting type and sizes of windows
(2D) Designing to minimize transparency through two parallel façades (2E) Designing to minimize views of interior plants
(2F) Landscaping to increase distances between windows and trees and shrubs

(3) Monitoring for adaptive management to reduce impacts
(3A) Systematic monitoring for fatalities to identify seasonal and spatial patterns
(3B) Adjust light management, window marking and other measures as needed.

WRA Analysis of Bird-Window Collision Risk

WRA is to be commended for addressing this issue. Its analysis, however, could be vastly improved with use of more literature on the topic. It relied on building design guidelines, which is helpful, but it made no use of the literature including research studies. It also addressed only a few risk factors, and merely summarizes the City of San Jose (2014) Downtown Design Guidelines. This summary of guidelines seems empty considering lack of project adherence to the guidelines, as detailed below.

According to the Guidelines, "Bird safety treatments may include: exterior screens, louvers, grilles, shutters, sunshades, bird-safe patterns, or other methods to reduce the likelihood of bird collisions." I did not see any of these features depicted in renderings of the project in the IS/MND.

According to the Guidelines, "Exterior decorative lighting on these buildings should additionally be turned off between 2:00 AM and 6:00 AM, except during June, July, December, and January where birds may be migrating and constraints may be increased. This may involve turning non-emergency lighting off or shielding it at night (after sunset) to minimize light from buildings that is visible to birds." I saw no measure to this effect in the IS/MND.

The WRA analysis is flawed in several other ways. For example, it notes that "The amount of glazing proposed is relatively low overall in comparison to some similarly- scaled developments in the region." I do not agree with this assessment, but it is irrelevant. Potential impacts of a project should be analyzed specific to the project and not weighed against what other developers got away with.

WRA argues, "The percent of glazing on the exterior elevations is less than 50 percent overall and approximately the same on all faces. The remainder of the buildings' exteriors consist of opaque materials (e.g. cement and metal siding)." This argument neglects collision mortality known to occur at buildings without windows (e.g., Overing 1938). Nor can WRA link a specific percentage of glazed facade to levels of collision mortality.

WRA assures that "All residential units within the development will have interior blinds or curtains installed on windows." But residents would not have to close their blinds. The guidelines call for external features to the windows, not internal features such as blinds or curtains.

WRA points out that "Overhangs, spatially offset adjacent faces, and similar forms of architectural relief along the exterior of the building will "break up" the exterior of the building visually (providing "visual noise"), and increase the likelihood that flying birds will perceive the building as a solid surface. Shadows formed by these overhangs and relief will contribute to this perception." Actually, such overhangs and their shadows would create the black hole or passage effects I summarized earlier. They would likely increase rather than reduce risk.

WRA speculates that "Similar to the architectural relief elements described above, the buildings will feature different colors and textures across adjacent faces and sections, creating additional "visual noise"." WRA cites no evidence to support this notion that different colors on a facade would reduce collision mortality.

WRA points out that "While the original design included hotel room balconies with associated guardrails, the new design eliminates balconies on higher levels of the hotel." What the previous plans included is irrelevant to the analysis of impacts posed by the current project.

WRA speculates that "The parking garage designs ... Green walls installed along the ground level ... may attract some birds (e.g., for foraging opportunities)." WRA offers no evidence to support the notion that birds would be attracted to green walls to forage. Frankly, this notion is silly.

WRA speculates that "Though the Project Area is in relatively close proximity to wetlands associated with the Don Edwards National Wildlife Refuge Complex, it is surrounded on all other sides by urban (residential or light industrial) development. As such, it is unlikely to provide a collision risk to flocks of waterbirds (e.g., waterfowl, shorebirds) that congregate on San Francisco Bay and shoreline habitats during the winter period and spring-fall migration." In fact, the project site is not surrounded on all sides by urban development. One side is composed of the Guadalupe River. While I visited the site, I observed many birds flying across the project site.

WRA concludes "...the designs for the Project suggest a low overall risk for bird collisions..." I disagree. The shape of the building would funnel bird traffic along the north side of the building and into those portions of the north aspect that curve to the north. The TopGolf net would force birds to fly through a very narrow passage between the net and the hotel, thereby increasing collision risk.

The ground floor would include extensive glass panes at just about the right distance from proposed landscaping to enable birds to reach lethal speeds before they hit those windows.

WRA offers recommendations for treating windows to make them safer to birds, but I am concerned that the TopGolf project was offered similar recommendations by Harvey & Associates (2016) to improve the safety of its net, which had not been followed by the time of this writing.

Overall, WRA's analysis of potential impacts caused by bird-window collisions was insufficiently informed, speculative in favor of minimalizing impacts, inconsistent in its logical flow from premise to conclusion, and too often irrelevant. Despite the arguments made by both WRA and the City (via the IS/MND), the location of the project within a known wildlife movement corridor, the large extent of its windows, the IS/MND's renderings of the windows as reflective on the upper floors and transparent on the bottom floor, the shape of the building that would funnel flying birds towards windows, and its location close to a 170-foot-tall net all point toward a high bird-window collision rate and a significant impact. A fair argument can be made for the need to prepare an EIR to more thoroughly and appropriately analyze potential impacts from bird-window collision injuries and mortality.

Response B.46: As Dr. Smallwood points out, a bird safe design assessment was completed for the project by WRA. WRA first assessed the plans for this project in December of 2019, wherein recommendations were made to alter some aspects the design of the building in favor of more stringent compliance with bird safe design guidelines set forth in City of San José Downtown Design Guidelines (hereafter "Guidelines") and City Council Policy 6-34 (Riparian Corridor Protection and Bird-Safe Design). The applicant, following this feedback, redesigned the hotel to better adhere to glazing, lighting, landscaping, and design requirements identified by WRA as being of relatively high risk for bird collisions.

The building proposed by the project presents a relatively low risk for bird collisions for several major reasons: surface glazing is relatively minimal, and comprises less than 50 percent of all elevations of the building; the elevations all exhibit "architectural relief", which creates visual noise that is likely to be visible to dispersing birds; landscape trees are oriented parallel to the building elevations, which reduces risk relative to a perpendicular orientation; the building is devoid of identified high-hazard features such as glass guardrails, rooftop gardens, transparent corners, etc.; and more. Additionally, as per MM BIO-4.1 in the IS/MND, the entire elevation of the building facing the Guadalupe River will be constructed using treated glazing materials, and only 10 percent of any other building elevation may be comprised of untreated glazing. This represents a very low percentage of the overall glazing that may be left untreated. Dr. Smallwood also makes several mentions of ways in which birds may collide with opaque surfaces on the building. While birds may, under certain circumstances, collide with an opaque and visible surface, WRA and the City do not agree that this presents a significant risk for bird collisions. Bird-safe standards are chiefly concerned with regulating glazed surfaces largely because it is widely accepted that these surfaces provide the greatest risk for collisions. The analysis included here is concerned with assessing whether the building in question will present a significant impact to biological resources, and in the case of bird

collisions, it will not. While Dr. Smallwood may advocate for a more conservative approach with reducing bird collision risk, it is WRA's and the City's assertion that the applicant has exceeded standard expectations with a design that will present a relatively low, and certainly less-than-significant, collision risk for birds; furthermore, this design conforms to relevant guidelines and regulations applicable to this project, regardless of personal opinions as to the adequacy of the regulations.

Additionally, the City would like to specifically address concerns raised by Dr. Smallwood regarding the "interaction" between the TopGolf net and the proposed hotel building. First, the net in question is not associated with the current development. However, in pictures included in Dr. Smallwood's comment letter, the net is very obviously visible even from a distance, suggesting that birds would be likely to detect it while in flight. He has also failed to provide any evidence that the net itself poses any inherent collision risk. Assuming that birds were indeed "funneled" between the hotel building and the TopGolf net as Dr. Smallwood describes, only a very small and minimally glazed portion of the building comes within the 26 meters identified in the comment. At this location, where only a small corner of the building is present, only 10 percent of the elevation would potentially be comprised of untreated glazing, as per MM BIO-4.1, making the opportunity for strikes quite limited. The rest of the building extends back away from the net, and as aforementioned provides a relatively low collision risk in and of itself. Any funneling that may occur is confined to an extremely small area, and is unlikely, given the setting, to cause a significant increase in bird collisions.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.47: CUMULATIVE IMPACTS

The IS/MND argues that because impacts of the proposed project would be individually mitigated, and because "all projects are required to implement best management practices and comply with all federal, state, regional and local regulations," no significant cumulative impacts would result. With this argument, the IS/MND implies that cumulative impacts are really just residual impacts of incomplete mitigation of project-level impacts. If that was CEQA's standard, then cumulative effects analysis would be merely an analysis of mitigation efficacy. And if that was the standard, then I must point out that none of the project-level impacts would be offset to any degree by the proposed mitigation measures. The project's mitigation includes no avoidance measures and no compensatory measures. But anyway, the IS/MND's implied standard is not the standard of analysis of cumulative effects. CEQA defines cumulative impacts, and it outlines two general approaches for performing the analysis. Given that North American has lost nearly a third of its birds over the past half century (Rosenberg et al. 2019), an appropriate cumulative effects analysis is warranted. An EIR needs to be prepared, and it needs to include an appropriate, serious analysis of cumulative impacts. It needs to address cumulative impacts from habitat loss and habitat fragmentation, from bird-window collision mortality and from road mortality.

Response B.47: Please refer to Response B.12, which addresses a similar comment regarding cumulative impacts to biological resources. This comment does not provide

substantial evidence supporting a fair argument that the project would result in, or make a considerable contribution to, cumulative biological resources impacts.

Comment B.48: MITIGATION

MM BIO-1.2 Preconstruction Surveys for Nesting Birds

Preconstruction surveys should be performed, but not as a substitute for detection surveys. Preconstruction surveys are only intended as last-minute, one-time salvage and rescue operations targeting readily detectable nests or individuals before they are crushed under heavy construction machinery. Because most special-status species are rare and cryptic, and because most species are expert at hiding their nests lest they get predated, most of them will not be detected by preconstruction surveys. As a case in point, the reconnaissance-level surveys performed by WRA detected fewer than a third of the species I detected during one morning at the project site, and they detected none of the special-status species. A much more serious survey effort is needed in advance of the preconstruction surveys.

Detection surveys are also needed to inform preconstruction take-avoidance surveys by mapping out where biologists performing preconstruction surveys are most likely to find animals before the tractor blade finds them. Detection surveys were designed by species experts, often undergoing considerable deliberation and review before adoption. Detection surveys often require repeated efforts using methods known to maximize likelihoods of detection. Detection surveys are needed to assess impacts and to inform the formulation of appropriate mitigation measures, because preconstruction surveys are not intended for these roles either. What is missing from the IS/MND, and what is in greater need than preconstruction surveys, are detection surveys consistent with guidelines and protocols that wildlife ecologists have uniquely developed for use with each special-status species. What is also missing is compensatory mitigation of unavoidable impacts.

Following detection surveys, preconstruction surveys should be performed. However, an EIR should be prepared, and it should detail how the results of preconstruction surveys would be reported. Without reporting the results, preconstruction surveys are vulnerable to serving as an empty gesture rather than a mitigation measure. For these reasons, this mitigation measure is insufficient to reduce the project's impacts to special-status species to less than significant.

Response B.48: Please see response B.13 above, which addresses this comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.49: MM BIO-1.3 Burrowing owl

The IS/MND claims "Although ground squirrels are not active on the site..." This is not what I saw at the site. Ground squirrels are present, and burrowing owls are known to occur in the area (see WRA 2020). Detection surveys for burrowing owl need to be performed to be consistent with CDFW (2012) guidelines. Performing a preconstruction survey without first having performed detection surveys would be inconsistent with CDFW's guidelines.

Response B.49: At the time of WRA's site visit in late 2019, ground squirrels were not observed to be active within the project footprint, but were observed outside of the project footprint along the levees of the Guadalupe River. Project activities would not directly impact these locations. However, some surrogate structures were observed that could provide suitable wintering shelter for dispersing non-breeding burrowing owls and, in some limited circumstances, breeding owls. Thus, mitigation measure MM BIO-1.3 in the IS/MND requires pre-construction surveys based on the CDFW guidelines mentioned by Dr. Smallwood to assess whether owls are present at the time of construction. Detection surveys are not required prior to conducting the pre-construction survey per these CDFW guidelines, as the pre-construction surveys are designed specifically to detect owl presence (based on "sign" as well as observation of actual owls) as close as possible to the time work starts. These surveys are relatively conservative, and include a focused survey for this species within 24-48 hours of start of work, per the required mitigation measure. Pre-construction surveys of this kind are common to projects in this area, and are widely considered to reduce impacts to a less than significant level for burrowing owl, including any owls that may occur outside of the project footprint but within the survey buffer. Please also see Response B.13 above for justification of the use of pre-construction surveys, and their wide acceptance in a CEQA context. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.50: MM BIO-4.1 Bird-Window Collisions

The IS/MND promises to treat windows only on the south-facing aspect of the building and no more than 10% of the window area on the remaining facades. This measure is deficient because most of bird-window collision threat would occur on the north aspect of the building. The north aspect is where the greatest extent of windows would occur, and it is where the building would curve around northward to funnel bird traffic into windows, and it is where the TopGolf net would channel birds through a narrow gap between the unmarked net and the hotel's windows.

The IS/MND concludes that "With incorporation of MM BIO-4.1, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors..." But this measure does not mitigate impacts to wildlife movement. The building would still impede movement of migratory and resident wildlife, regardless of its windows and how they might be treated. The IS/MND conflates the issue of bird-window collisions with bird movement in the region.

Response B.50: In the bird-safe design analysis conducted by WRA, which is included in the IS/MND, all glazing facing the Guadalupe River (at minimum) is recommended to be treated, and no more than 10 percent of any other building elevation may be comprised of untreated glazing. As such, concerns voiced in this comment are already addressed by the IS/MND by relatively conservative mitigation measures. For a more detailed response to bird-safe design concerns related to this project, please see Response B.11 above. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.51: MM BIO-6 Habitat Conservation Plan

The IS/MND concludes, "MM BIO-1.1 through 4.1 would ensure the project complies with Condition 1 of the Habitat Plan" [Santa Clara Valley Habitat Conservation Plan]. Condition 1 of the Habitat Plan is to avoid direct impacts on Legally Protected Plant and Wildlife Species. Consisting of preconstruction surveys and a few window treatments to slightly minimize impacts, MM BIO 1.1 through 4.1 clearly would not avoid direct impacts to special-status species. Avoidance means planning a project to avoid impacts by not causing the impacts in the first place; see the definition provided by CEQA

Guidelines. The IS/MND inaccurately characterizes avoidance, and therefore its conclusion of compliance with Condition 1 of the Habitat Plan is in error.

The IS/MND concludes, "The project would pay all applicable fees and implement mitigation measure MM BIO-1.2 to ensure compliance with Condition 15 of the Habitat Plan." In the case of burrowing owls, paying the fee to the Habitat Plan would not conserve the species. Burrowing owls are nearly extirpated from the Bay Area despite the Habitat Plan. I am aware of this because in 2017 I was one of four experts invited to advise the Santa Clara Valley Habitat Agency to avoid what all signs indicated to be an pending extirpation of burrowing owls from the south Bay Area. Only a few dozen breeding pairs remained. The principal pressure on the remaining owls was habitat loss due to ongoing and planned projects. The Habitat Plan had been unable to halt or to even slow the decline of burrowing owls while development and its takings of habitat raced onward. Simply paying a fee to the Habitat Plan would not mitigate the project's impacts to burrowing owl.

The IS/MND addresses Condition 17 of the Habitat Plan, which covers tricolored blackbirds. As noted earlier in my comments, the IS/MND inappropriately determines tricolored blackbirds to be absent from the site. The survey performed by WRA at the site was insufficient for supporting this determination, and it was performed at the wrong time of year for determining the presence of a breeding colony. Even if tricolored blackbirds were absent during the breeding season following WRA's December 2017 survey, in my decade of experience tracking the locations of tricolored blackbird breeding colonies in the Altamont Pass, I found that breeding colonies were spatially dynamic. Breeding colonies did not use the same sites in all years, but instead shifted from site to site. Absence one year is not permanent absence.

Neither a preconstruction survey for the timing of construction would avoid the ultimate taking of habitat needed for the continued survival of tricolored blackbirds in the south Bay. The project site composes one of the last conceivable patches of tricolored blackbird habitat in the region. A stronger mitigation plan is warranted.

The proposed mitigation measures are founded on inaccurate analyses of impacts, and they would prove deficient at conserving wildlife that would be affected by the project. At least a fair argument can be made for the need to prepare an EIR to appropriately formulate mitigation measures to conserve special-status species of wildlife and all nesting birds protected by stated and federal statutes.

Response B.51: The SCVHP is an adopted Habitat Conservation Plan and has been developed over many years by a group of experts specifically to facilitate local conservation of covered species that are subject to decline due at least in part to land conversion actions. By filing for coverage under the SCVHP, the applicant will pay fees (usually based on acres of potential habitat impacted) that will be used to conserve and manage habitat for covered species known to occur in the vicinity. For example, the project area is identified in the SCVHP geobrowser to be within a burrowing owl fee zone. Thus, fees paid per acre by the applicant will serve to offset the impact of this project to burrowing owl habitat.

With regards to tricolored blackbird, WRA acknowledges that nesting by this species is spatially variable. However, according to the CDFW, the nearest occurrence of tricolored black bird was over one mile away. Additionally, due to the site's lack of dense stands of emergent vegetation that this species requires for nesting, the CDFW considers the species unlikely to occur on site. Additionally, no potential habitat that could support the establishment of a nesting colony will be impacted by any project activities. The nearest potential nesting habitat for this species is situated within the channel of the Guadalupe River, which is located a sufficient distance from most portions of the project footprint to avoid impacts to tricolored blackbird breeding habitat. This habitat is also likely marginal due to the tidal nature of the Guadalupe River at this location, because ideal nesting colony locations are generally located adjacent to freshwater areas that support large invertebrate populations[3]. As such, WRA and the City believe that tricolored blackbird is unlikely to be present other than during rare occurrences while moving between more suitable breeding habitats. Regardless, as described on page 68 of the IS/MND, the project would be required to implement Condition 17 of the SCVHP to avoid impacts to the tricolored blackbird. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

Comment B.52: RECOMMENDED MEASURES

Guidelines on Building Design

If the project goes forward, it should adhere much more comprehensively and more carefully to the available guidelines prepared by American Bird Conservancy and New York and San Francisco. The American Bird Conservancy (ABC) produced an excellent set of guidelines that recommend actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set

[3] Meese, R.J. and E.C. Beedy. 2015. Managing Nesting and Foraging Habitats to Benefit Breeding Tricolored Blackbird. Central Valley Bird Club Bulletin. Volume 17-4. Available online at: https://tricolor.ice.ucdavis.edu/sites/g/files/dgvnsk3096/files/inline-files/Managing-Breeding-Habitats-for-Tricolored-Blackbirds-Guidelines-to-Benefit-California%25u2019s-Blackbird-.pdf

of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. The San Francisco Planning Department's (2011) building design guidelines are more comprehensive than those of New York City, but they could have gone further. For example, the San Francisco guidelines probably should have also covered scientific monitoring of impacts as well as compensatory mitigation for impacts that could not be avoided, minimized or reduced.

City of San Jose's (2014) guidelines ought to be improved to be more consistent with the guidelines cited above.

Monitoring and the use of compensatory mitigation should be incorporated at any new building project because the measures recommended in the available guidelines remain of uncertain efficacy, and even if these measures are effective, they will not reduce collision fatalities to zero. The only way to assess efficacy and to quantify post- construction fatalities is to monitor the project for fatalities.

Road Mortality

Compensatory mitigation is needed for the increased wildlife mortality that would be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries would likely be caused by bird-window collisions and animal-automobile collisions, but some would be injured for other reasons. Many of these animals would need treatment caused by collision injuries.

> **Response B.52:** Please see Responses B.11, B.46 and B.43 above for justification as to how the project has a less than significant impact with respect to bird-safe design and road mortality, respectively. With regard to the funding of wildlife rehabilitation facilities, this comment appears to be contingent on an assumed substantial level of mortality from window collisions and vehicle-related incidents. Both of these factors are less than significant provided recommended mitigation measures and project design recommendations are adhered to going forward. Thus, asking the applicant to fund rehabilitation facilities based on the speculation of mortality that has not yet occurred is not reasonable. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts to biological resources.

COMMENT B.53: EXHIBIT B - LETTER MEMORANDUM PREPARED BY FRANCIS J. OFFERMAN

Exhibit B to the comment letter contains the full text of a letter memorandum prepared by Francis J. Offerman. The contents of the letter memorandum are to a large extent summarized in the comment letter above. Where comments in the letter memorandum have already been summarized in the comment letter and responded to above, further responses in this document may refer back to previous responses.

Comment B.54: Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high- performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m3. The median indoor formaldehyde concentration was 36 µg/m3, and ranged from 4.8 to 136 µg/m3, which corresponds to a median exceedance of the 2 µg/m3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (BAAQMD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by

California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m3 to 28% for the Acute REL of 55 µg/m3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016- 2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 µg/m3 (18.2 ppb) as compared to a median of 36 µg/m3 found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 µg/m3, which is 33% lower than the 36 µg/m3 found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to the Alviso Hotel Project, San Jose, CA, the building consists of a hotel building.

The employees of the hotel building are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because the hotel will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 µg/m3 (Singer et. al., 2020)

Assuming that the hotel employees work 8 hours per day and inhale 20 m3 of air per day, the formaldehyde dose per work-day at the offices is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m2 of material/m2 floor area, units of furnishings/m2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea- formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m2-h) and the area (m2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., µg/m2-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 µg/m2-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 µg/m2-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be

acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area- specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration ($\mu g/m^3$)

E_{total} = total formaldehyde emission rate ($\mu g/h$) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 “Calculation of Estimated Building Concentrations” of the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:
1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:
1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre- Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

> **Response B.54:** Please refer to Response B.15, which addresses a summarized version of the discussion of formaldehyde contained in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant impacts associated with formaldehyde.

Comment B.55: Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The Project is close to roads with moderate to high traffic (e.g., North 1st Street, South bay Freeway, etc.).

According to the Initial Study/Mitigated Negative Declaration – Alviso Hotel Project (City of San Jose, 2021), the Project would include areas that "would be exposed to future exterior noise levels of approximately 65 dBA DNL.". However this assessment is not based on any on-site sound level measurements. An acoustic study should be conducted to determine the existing and future exterior noise levels.

As a result of the anticipated high outdoor noise levels, the current project will require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

PM2.5 Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of PM2.5. According to Initial Study/Mitigated Negative Declaration – Alviso Hotel Project (City of San Jose, 2021), the Project is located in the San Francisco Bay Area Basin, which is a State and Federal non-attainment area for PM2.5.

An air quality analyses should to be conducted to determine the concentrations of PM2.5 in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local PM2.5 sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average PM2.5 exceedance concentration of 12 µg/m3, or the National 24-hour average exceedance concentration of 35 µg/m3, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor PM2.5 particles is less than the California and National PM2.5 annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of PM2.5 will exceed the California and National PM2.5 annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Response B.55: As discussed in Response B.15, CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents unless the project risks exacerbate those environmental hazards or risks that already exist. The comment discusses the impacts of existing PM2.5 on future users of the proposed hotel, which would not be considered an impact under CEQA. To the extent the comment argues that the project would exacerbate an existing impact, it asserts that the project may contribute additional PM2.5 emissions associated with vehicle trips to and from the hotel. As discussed in Response B.16, to emphasize that there is no operational health impact as a result of the project, a project-specific refined dispersion model was completed to demonstrate that the project-caused cancer risks from operational traffic are negligible (refer to Attachment B to this document). This operational health risk assessment is consistent with OEHHA guidance and the

results were compared against the BAAQMD threshold to show that the project would result in a less-than-significant health risk. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.56: Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

PM2.5 Outdoor Air Concentration Mitigation. Install air filtration with sufficient PM2.5 removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor PM2.5 particles are less than the California and National PM2.5 annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the

mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

Response B.56: As discussed in Response B.15, the comment letter does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts. As a result, no additional mitigation measures, such as those suggested in the comment, are needed.

Comment B.57: EXHIBIT C - LETTER MEMORANDUM PREPARED BY SWAPE

Exhibit C to the comment letter contains the full text of a letter memorandum prepared by SWAPE. The contents of the letter memorandum are to a large extent summarized in the comment letter above. Where comments in the letter memorandum have already been summarized in the comment letter and responded to above, further responses in this document may refer back to previous responses.

Comment B.58:

We have reviewed the October 2021 Initial Study/Mitigated Negative Declaration ("IS/MND") for the Alviso Hotel Project ("Project") located in the City of San Jose ("City"). The Project proposes to construct a 112,463-SF hotel, comprising of 214 rooms, and 234 parking spaces on the 6.23-acre site.

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

Air Quality
Unsubstantiated Input Parameters Used to Estimate Project Emissions
The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 42).[4] 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. 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 files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

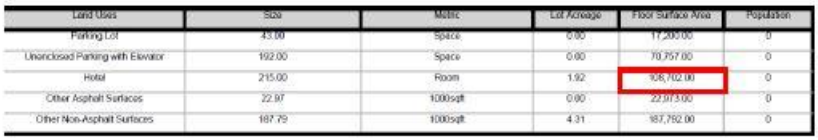
[4] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

When reviewing the Project's CalEEMod output files, provided in The Estuary @ Terra Air Quality & Greenhouse Gas Assessment ("AQ & GHG Assessment") as Appendix A 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. As such, an EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Underestimated Land Use Size
According to the IS/MND:

"The project proposes construction of an approximately 112,463-square foot, 214-room hotel in a five-story building" (p. 8).

As such, the models should have included 112,463-SF of hotel space. However, review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" and "Alviso Hotel, San Jose – 2030" models include only 108,702-SF of hotel land use (see excerpt below) (Appendix A, pp. 30, 77).



Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	43.00	Space	0.00	17,200.00	0
Unenclosed Parking with Elevator	192.00	Space	0.00	70,757.00	0
Hotel	215.00	Room	1.92	108,702.00	0
Other Asphalt Surfaces	22.97	1000sqft	0.00	22,973.00	0
Other Non-Asphalt Surfaces	187.79	1000sqft	4.31	187,792.00	0

As you can see in the excerpt above, the proposed hotel is underestimated by 3,761-SF.[5] This underestimation presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations. The square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts).[6] Thus, by underestimating the size of the proposed hotel, the models underestimate the Project's construction and operational emissions and should not be relied upon to determine Project significance.

Response B.58: Please refer to Response B.18, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.59: Unsubstantiated Changes to Individual Construction Phase Lengths
Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model includes several changes to the default individual construction phase lengths (see excerpt below) (Appendix A, pp. 32).

[5] Calculated: 112,463-SF – 108,702 SF = 3,761 SF
[6] CalEEMod User Guide, available at: http://www.caleemod.com/, p 28.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	230.00	142.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	85.00

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix A, pp. 53):

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Site Preparation	Site Preparation	2/1/2021	2/15/2021	5	11
2	Grading	Grading	2/15/2021	4/15/2021	5	44
3	Trenching	Trenching	4/15/2021	6/30/2021	5	55
4	Building Construction	Building Construction	7/1/2021	1/15/2022	5	142
5	Architectural Coating	Architectural Coating	1/15/2022	5/15/2022	5	85
6	Paving	Paving	5/15/2022	5/25/2022	5	8

As you can see in the excerpt above, the site preparation phase was increased by 10%, from the default value of 10 to 11 days; the grading phase was increased by 120%, from the default value of 20 to 44 days; the building construction phase was decreased by 38%, from the default value of 230 to 142 days; the architectural coating phase was increased by approximately 325%, from the default value of 20 to 85 days, and the paving phase was decreased by 60%, from the default value of 20 to 8 days. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[7] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Provided construction schedule 9/8/2020" (Appendix A, pp. 30). Furthermore, regarding the Project's anticipated construction schedule, the IS/MND states:

"The construction schedule assumed that the project would be built over a period of approximately 15 months, or 343 construction workdays. The first full year of operation was assumed to be 2023" (p. 42).

However, these justifications remain insufficient. While the IS/MND indicates the total construction duration, the IS/MND fails to mention or justify the individual construction phase lengths. This is incorrect, as according to the CalEEMod User's Guide:

"CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA." [8]

[7] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2,9
[8] CalEEMod User Guide, available at: http://www.caleemod.com/, p.12.

Here, as the IS/MND only justifies the total construction duration of 15 months, the IS/MND fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes.

These unsubstantiated changes present an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[9]

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

As such, by disproportionately altering the individual construction phase lengths without proper justification, the model may underestimate the peak daily emissions associated with some phases of construction. Thus, the model should not be relied upon to determine Project significance.

Response B.59: Please refer to Response B.19, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.60: Underestimated Amount of Material Import
Regarding the amount of material import required for Project construction, the IS/MND states:

"The project would not involve demolition since the project site is currently undeveloped. Grading of the site would import approximately 1,000 cubic yards of fill" (p. 13).

As such, the model should have included 1,000 cubic yards ("cy") of material import. However, review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model includes only 900 cy of material import (Appendix A, pp. 35, 82).

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialImported	0.00	900.00

[9] CalEEMod User's Guide." CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 31.

As you can see from the excerpt above, the amount of material import required for Project construction is underestimated by 100 cy in the model.[10]

This underestimation presents an issue, as material import is used to calculate emissions produced from material movement, including truck loading and unloading, and additional hauling truck trips. [11] Thus, by failing to include the full amount of material import required for Project construction, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

> **Response B.60:** Please refer to Response B.20, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.61: Unsubstantiated Changes to Off-Road Construction Unit Amounts and Usage Hours Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model includes several changes to the default off-road construction equipment unit amounts and usage hours (see excerpt below) (Appendix A, pp. 35-36, 82-83).

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.90
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	0.70
tblOffRoadEquipment	UsageHours	8.00	3.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	1.70
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	0.00

[10] Calculated: 1,000 cy – 900 cy = 100 cy.
[11] CalEEMod User's Guide, available at: http://www.caleemod.com/, p. 2, 34.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[12] According to the "User Entered Comments and Non-Default Data" table, the justification provided for these changes is: "Provided construction equip & hours 9/8/2020" (Appendix A, pp. 31, 78). Furthermore, the IS/MND states:

"The construction build-out scenario, including equipment list and schedule, were based on construction information provided by the project applicant" (p. 42).

However, these justifications remain insufficient, as the IS/MND and associated documents fail to provide the above-mentioned equipment list. As such, until additional information becomes available that substantiates the revised unit amounts and usage hours, we are unable to verify the changes included in the model are an accurate reflection of the alleged Applicant-provided equipment list.

These unsubstantiated reductions present an issue, as CalEEMod uses the off-road equipment input parameters to calculate the emissions associated with off-road construction equipment.[13] By including unsubstantiated changes to the default off-road construction equipment unit amounts and usage hours, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

> **Response B.61:** Please refer to Response B.21, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.62: Underestimated Hauling Trip Number
Review of the AQ & GHG Assessment demonstrates that construction-related mobile-source emissions are modeled outside of CalEEMod. Specifically, the AQ & GHG Assessment states:

"CARB EMission FACtors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks" (p. 8-9).

Furthermore, the AQ & GHG Assessment provides the following input parameters used for the EMFAC2017 model runs (p. 10):

[12] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 1, 13-14.
[13] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 32.

Table 2. Construction Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	71.5% LDA 6.4% LDT1 22.1% LDT2	38.1% MHDT 61.9% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0 (Demo/Soil) 7.3 (Cement/Asphalt)	CalEEMod default distance with 5 Minute Truck Idle Time
Site Preparation	55	-	-	CalEEMod default worker trips
Grading	572	-	112	900-cy import. CalEEMod default worker trips
Trenching	520	-	-	CalEEMod default worker trips
Building Construction	24,282	9,514	200	Estimated 100 cement roundtrips. CalEEMod default worker and vendor trips
Architectural Coating	2,890	-	-	CalEEMod default worker trips
Paving	104	-	48	200-cy asphalt. CalEEMod default worker trips

Notes: [1] Based on 2021-2022 EMFAC2017 light-duty vehicle fleet mix for Santa Clara County.
[2] Includes grading trips estimated by CalEEMod based on amount of material to be removed.

As you can see in the excerpt above, the number of grading hauling trips (as estimated by CalEEMod defaults based on 900 cy of material import) was included in the EMFAC2017 model runs. However, as previously discussed, the model should have included 1,000 cy of material import. According to the CalEEMod User's Guide:

"Haul trips are based on the amount of material that is demolished, imported or exported assuming a truck can handle 16 cubic yards of material."[14]

Therefore, CalEEMod calculates a default number of hauling trips based upon the amount of material import inputted into the model. Thus, as the amount of material import is underestimated, the number of hauling trips is underestimated in the model as well.

This underestimation presents an issue, as CalEEMod uses the number of hauling trips to estimate the construction-related emissions associated with on-road vehicles.[15] By including an underestimated hauling trip number required for grading, the model may underestimate the Project's construction- related emissions and should not be relied upon to determine Project significance.

Response B.62: Please refer to Response B.22, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

[14] Calculation Details for CalEEMod, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14
[15] CalEEMod User Guide, available at: http://eee.caleemod.com/, p. 34.

Comment B.63: Unsubstantiated Change to Wastewater Treatment Percentages
Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" and "Alviso Hotel, San Jose – 2030" models include several changes to the default wastewater treatment system percentages (see excerpt below) (Appendix A, pp. 97).

Table Name	Column Name	Default Value	New Value
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

As you can see in the excerpt above, the models assume that the Project's wastewater would be treated 100% aerobically. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[16] According to the "User Entered Comments and Non-Default Data" table, the justification provided for these changes is: "WWTP 100% aerobic" (Appendix A, pp. 31, 78).

Furthermore, the IS/MND states:

"The project area is currently served by a six-inch sanitary sewer pipe in North First Street Wastewater in the project's surrounding area is treated at the San José/Santa Clara Regional Wastewater Facility (the Facility) in Alviso" (p. 176).

However, these changes remain unsupported. Review of the San José-Santa Clara Regional Wastewater Facilities treatment process reveals the use of anaerobic bacteria in the digesters phase of treatment.[17] As such, the assumption that the Project's wastewater would be treated 100% aerobically is incorrect and overestimated within the models.

This inconsistency presents an issue, as each type of wastewater treatment system is associated with different GHG emission factors, which are used by CalEEMod to calculate the Project's total GHG

[16] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 1, 13-14.
[17] https://www.google.com/url?q=https://www.sanjoseca.gov/your-government/environment/water-utilities/regional-wastewater-facility/treatment-process&sa=D&source=docs&ust=1635443327123000&usg=AOvVaw3iBx5wItSPPUUcK4kJmjxv

emissions.[18] Thus, by including incorrect wastewater treatment system percentages, the models may underestimate the Project's GHG emissions and should not be relied upon to determine Project significance.

Response B.63: Please refer to Response B.23, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.64: Incorrect Application of Tier 3 Mitigation

Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model assumes that the Project's off-road construction equipment fleet would meet Tier 3 and Tier 4 Final emissions standards (see excerpt below) (Appendix A, pp. 31-32, 78-79).

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

[18] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 45.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[19] According to the "User Entered Comments and Non-Default Data" table, the justification provided for the inclusion of Tier 3 and Tier 4 Final mitigation is: "BMPs, Tier 3 mitigation" (Appendix A, pp. 31, 78). Furthermore, the IS/MND states:

"Energy would not be wasted or used inefficiently by construction equipment, as the proposed project would include several measures to improve efficiency of the construction (e.g., limiting idling time or use U.S. EPA tiered equipment)" (p. 82).

However, the inclusion of Tier 3 and Tier 4 Final emissions standards remains unsupported for two reasons.

First, while the IS/MND states that the Project would include U.S. EPA tiered equipment as a measure to improve construction efficiency, the inclusion of tiered equipment is not mentioned elsewhere. Furthermore, the IS/MND fails to specify which tier of construction equipment the Project would allegedly use during construction. As such, we cannot verify the inclusion of Tier 3 and Tier 4 Final emissions standards.

Second, according to the Association of Environmental Professionals ("AEP") CEQA Portal Topic Paper on mitigation measures:

"While not 'mitigation', a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact" (emphasis added).[20]

As you can see in the excerpts above, measures that are not formally included in the mitigation monitoring and reporting program ("MMRP") may be eliminated from the Project's design altogether. Thus, as the use of Tier 3 and Tier 4 Final construction equipment is not formally included as a mitigation measure, we cannot guarantee that the emission standards would be implemented, monitored, and enforced on the Project site. Thus, the model's assumption that the off-road construction equipment fleet would meet Tier 3 and Tier 4 emissions standards is incorrect.

Response B.64: Please refer to Response B.24, which addresses a summary of the discussion in the above comment. This comment does not provide substantial

[19] CalEEMod User Guide, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s- guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1, 13-14.

[20] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, available at: https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.65: Incorrect Application of Energy-Related Operational Mitigation Measure
Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" and "Alviso Hotel, San Jose – 2030" models include the following energy-related mitigation measure (see excerpt below) (Appendix A, pp. 68, 100).

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[21] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this inclusion is:

"SJCE is the electricity provider in San Jose. Will provide 100% carbon free electricity from 2021 on" (Appendix A, pp. 31, 78).

However, this justification remains insufficient, as the above-mentioned energy-related mitigation measure refers to renewable energy generation on-site.[22] As such, electricity from the grid is not applicable and the inclusion of the energy-related operational mitigation measure in the models is incorrect. By incorrectly including an operational mitigation measure, the models overestimate the reduction to the Project's operational emissions and should not be relied upon to determine Project significance.

Response B.65: Please refer to Response B.25, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.66: Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated
The IS/MND estimates that the maximum excess cancer risk posed to nearby, existing sensitive receptors as a result of Project construction would be 0.3 in one million, which would not exceed the BAAQMD significance threshold of 10 in one million (see excerpt below) (p. 47, Table 4.3-6).

[21] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 1, 13-14.
[22] CalEEMod User Guide, available at: http://www.caleemod.com/, p. 58-59.

Table 4.3-6: Construction Risk of Impacts at the Off-site Receptors			
Source	**Cancer Risk (per million)**	**Annual $PM_{2.5}$ ($\mu g/m^3$)**	**Hazard Index**
Project Impacts			
Project Construction	0.3 (infant)	<0.01	<0.01
BAAQMD Single-Source Threshold	**>10.0**	**>0.3**	**>1.0**
Exceed Threshold?	No	No	No
Mayne Elementary School Student Receptors			
Project Construction	0.1 (child)	<0.01	<0.01
BAAQMD Single-Source Threshold	**>10.0**	**>0.3**	**>1.0**
Exceeds Threshold?	No	No	No
Cumulative Sources			
SR 237	9.4	0.19	--
South Bay Development, LLC	<0.1	--	--
Verizon Wireless	0.3	--	--
Combined Sources	10.1 (infant)	<0.20	<0.01
BAAQMD Cumulative Significance Threshold	**>100**	**>0.8**	**>10.0**
Exceed Threshold?	No	No	No

Furthermore, regarding the health risk impacts associated with Project operation, the IS/MND states:

"The project would generate some traffic consisting of light-duty vehicles. However, the number of net daily trips generated by the project would be small in relation to existing traffic volumes on surrounding roadways (i.e., 1,642 daily trips, see Section 4.17 Transportation) and emissions from automobile traffic generated by the project would be spread out over a broad geographical area and would not be localized. Project traffic was not considered a source of substantial TACs or PM2.5" (p. 44).

As demonstrated above, the IS/MND concludes that the Project would result in a less-than-significant operational health risk impact because Project-generated traffic would not result in significant toxic air contaminant ("TAC") emissions. However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

First, by failing to prepare a quantified operational HRA, the Project is inconsistent with CEQA's requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. Despite the IS/MND's qualitative claim that daily trips generated by the project would be small in relation to existing traffic volumes, the Project's anticipated 1,642 average daily vehicle trips will generate additional exhaust emissions and expose nearby sensitive receptors to diesel particulate matter ("DPM") emissions regardless (p. 44). However, the IS/MND fails to evaluate the potential TACs associated with Project operation and the concentrations at which such pollutants would trigger adverse health effects. Thus, without making a reasonable effort to connect the Project's operational TAC emissions to the potential health risks posed to nearby receptors, the Project is inconsistent with CEQA's requirement to correlate the increase in TAC emissions with potential adverse impacts on human health.

Second, the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, released its most recent Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments in February

2015, as referenced by the AQ & GHG Assessment (Appendix A, p. 2).[23] The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[24] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. This recommendation reflects the most recent state health risk policies, and as such, we recommend that an analysis of health risk impacts posed to nearby sensitive receptors from Project operation be included in an EIR for the Project.

Third, the BAAQMD requires projects within 1,000 feet of an existing sensitive receptor or source to evaluate the cancer risk associated with Project operation (see excerpt below):[25]

Table 2-1
Air Quality CEQA Thresholds of Significance*

Pollutant	Construction-Related	Operational-Related
Project-Level		
Risk and Hazards for new sources and receptors (Individual Project)*	Same as Operational Thresholds**	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor

Furthermore, the IS/MND indicates that "[t]he closest sensitive receptors to the site are the children at the Mayne Elementary School, approximately 680 feet to the north, and the single-family residences, approximately 1,000 feet north of the site" (p. 45). As such, pursuant to the BAAQMD, an analysis of the health risk posed to nearby, existing receptors from both Project operation should have been conducted.

Fourth, by claiming a less than significant impact without conducting a quantified operational HRA for nearby, existing sensitive receptors, the IS/MND fails to compare the excess health risk impact to the applicable BAAQMD threshold of 10 in one million.[26] Specifically, regarding the operational TAC emissions threshold, the BAAQMD states:

[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html
[24] "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. 8-6, 8-15
[25] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, 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.
[26] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, available at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.

"The Lead Agency shall determine whether operational-related TAC and PM2.5 emissions generated as part of a proposed project siting a new source or receptor would expose existing or new receptors to levels that exceed BAAQMD's applicable Thresholds of Significance stated below:

Compliance with a qualified Community Risk Reduction Plan;
An excess cancer risk level of more than 10 in one million…"[27]

Thus, pursuant to CEQA and the BAAQMD, an analysis of the health risk posed to nearby, existing receptors from Project operation should have been conducted.

Fifth, while the IS/MND includes an HRA evaluating the health risk impacts to nearby, existing receptors as a result of Project construction, 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, as referenced by the AQ & GHG Assessment, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location" (Appendix A, p. 2).[28] However, the IS/MND's HRA fails to sum each age bin to evaluate the total cancer risk over the course of the Project's total construction and operation. This is incorrect and thus, an updated analysis should quantify the entirety of the Project's construction and operational health risks and then sum them to compare to the BAAQMD threshold of 10 in one million, as referenced by the IS/MND (p. 39, Table 4.3-2).

> **Response B.66:** Please refer to Response B.16, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.67: Screening-Level Analysis Demonstrates Significant Impacts
In order to conduct our screening-level risk assessment, we relied upon AERSCREEN, a screening level air quality dispersion model.[29] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[30] and the California Air Pollution Control Officers Associated ("CAPCOA")[31] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

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[27] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, available at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 5-3.
[28] Guidance Manual for preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 8-4
[29] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[30] OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[31] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

We prepared a preliminary HRA of the Project's operational health risk impact to nearby sensitive receptors using the Project's annual PM10 exhaust estimates. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. Subtracting the 478-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.69 years, approximately. The IS/MND's annual CalEEMod output file indicates that operational activities will generate approximately 53 pounds of DPM per year throughout operation.[32] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project operation, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{53.4\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = 0.000768\ \boldsymbol{g/s}$$

Using this equation, we estimated an operational emission rate of 0.000768 g/s. Construction and operational activity was simulated as a 6.23-acre rectangular area source in AERSCREEN with approximate dimensions of 225 by 112 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[33] According to the IS/MND, the nearest sensitive receptors are single-family residences located approximately 1,000 feet, or 305 meters, from the Project (p. 45). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.229 µg/m3 DPM at approximately 300 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.0229 µg/m3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as referenced by the AQ & GHG Assessment (Appendix A, p. 2). Consistent with the 478-day construction schedule utilized in the Project's CalEEMod output files, the annualized averaged concentration for operation was used for the latter 0.94 years of the infant stage of life (0 – 2 years), as well as the entire child (2 – 16 years) and adult (16 – 30 years) stages of life.

[32] See Attachment A for calculations.
[33] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, available at: http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; see also "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 4-36.

Consistent with the IS/MND's construction HRA, provided in the AQ & GHG Report, we used Age Sensitivity Factors ("ASFs") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution (Appendix A, pp. 26). When applying ASFs, the quantified cancer risk should be multiplied by a factor of ten during the infant (0 – 2 years) stage of life, and a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with the guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.[34] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home ("FAH") value of 0.85 for the infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[35] We also used a cancer potency factor of 1.1 (mg/kg- day)-1 and an averaging time of 25,550 days. The results of our calculations are shown below.

The Maximally Exposed Individual at an Existing Residential Receptor							
Age Group	Emissions Source	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk (without ASFs*)	ASF	Cancer Risk (with ASFs*)
3rd Trimester	Construction	0.25	*	361	*	10	*
	Construction	*1.06*	*	*1090*	*		
	Operation	*0.94*	*0.0229*	*1090*	*3.01E-07*		
Infant (Age 0 - 2)	Total	2			3.01E-07	10	**3.01E-06**
Child (Age 2 - 16)	Operation	14	0.0229	572	1.99E-06	3	**5.97E-06**
Adult (Age 16 - 30)	Operation	14	0.0229	261	9.20E-07	1	**9.20E-07**
Lifetime		**30**			**3.21E-06**		**9.89E-06**

* Construction cancer risk calculated separately in the IS/MND.

As demonstrated in the table above, the excess cancer risks to infants, children, and adults at the MEIR located approximately 300 meters away, over the course of Project operation, are approximately 3.01, 5.97, and 0.92 in one million, respectively. The excess cancer risk associated with the Project operation over the course of a residential lifetime is approximately 9.89 in one million. When summing the Project's operational cancer risk, as estimated by SWAPE, with the IS/MND's construction-related cancer risk of 0.3 in one million, we estimate an excess cancer risk of approximately 10.19 in one million over the course of a residential lifetime (30 years) (p. 4.2-51, Table 4.2-14).[36] As such, the lifetime cancer risks exceed the BAAQMD threshold of 10 in one

[34] SCAQMD (Jun 2015) Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act, p. 19, http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6;.

[35] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, available at: http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

[36] Calculated: 9.89 in one million + 0.3 in one million = 10.19 in one million.

million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection.[37] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, an EIR should be prepared and include updated, quantified air pollution model as well as an updated, quantified refined HRA which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Response B.67: Please refer to Response B.17, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant air quality impacts.

Comment B.68: Greenhouse Gas
Failure to Adequately Evaluate Greenhouse Gas Impacts
The IS/MND relies upon the Project's consistency with the City's 2030 Greenhouse Gas Reduction Strategy ("GHGRS") in order to conclude that the Project would result in a less-than-significant greenhouse gas ("GHG") impact (p. 98-103, Table 4.8-1). However, review of the Greenhouse Gas Reduction Strategy Consistency Checklist ("Consistency Checklist"), provided as Appendix J to the IS/MND, reveals that the Project is inconsistent with numerous measures, including but not limited to those listed below:

Response B.68: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. Consistency with Table A, Strategy 1 (Consistency with the Land Use/Transportation Diagram [Land Use and Density]) and compliance with Table B (2030 Greenhouse Gas Reduction Strategy Compliance) are the primary basis for determining consistency with the GHGRS. Consistency with Table A, Strategy 1 is particularly important for determining consistency because projects that are consistent with the Land Use/Transportation Diagram have already been accounted for in the 2030 GHGRS emissions and growth projections.

[37] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Based on a review of the project plans and the GHGRS Compliance Checklist completed for the project, the City has determined that the project is consistent with the GHGRS and, therefore, would not result in significant impacts related to GHG emissions.

Comment B.69:

City of San Jose 2030 Greenhouse Gas Reduction Strategy Compliance Checklist[35]	
Policies and Strategies	Consistency Discussion
2. Implementation of Green Building Measures ***MS-2.2:*** *Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.*	Here, the Consistency Checklist states: "The project includes installation of solar panels on the rooftop of the hotel building. The project applicant is committed to the project being compliant with all mandatory applicable state and local green building and energy codes" (Appendix J, p. 1). However, this response is insufficient for two reasons. First, by simply stating that the Project would comply "with all mandatory applicable state and local green building and energy codes," the Project commits to the bare minimum requirements. As such, the Consistency Checklist fails to demonstrate that the Project would encourage maximized use of on-site renewable energy for all new and existing buildings. Second, the use of on-site renewable energy is not included as a formal mitigation measure. This is incorrect, as according to the AEP *CEQA Portal Topic Paper* on mitigation measures: "While not "mitigation", a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact." [36] As you can see in the excerpt above, project design features are not mitigation measures and may be eliminated from the Project's design. Here, as the IS/MND fails to require the Project to include solar panels on the rooftop of the hotel building, we cannot guarantee that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistencywith the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.69: Please refer to Response B.29, which addresses a summary of the discussion in the above comment regarding onsite renewable energy generation.

The comment's assertion that elements of the project description necessary for consistency with the GHGRS must be identified as mitigation measures is incorrect. The IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The project proposes solar panels on the roof of the hotel building; therefore, the proposed solar panels are considered part of the project and need not be identified as mitigation measures. The project description in the IS/MND describes the project as shown on project application materials submitted to the City. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection.

This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.70:

2. Implementation of Green Building Measures ***MS-2.3:*** *Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.*	Here, the Consistency Checklist states: "The proposed project is located and designed to maximize sun exposure and reduce energy consumption. All building facades and hotel rooms include windows to maximize natural sunlight and reduce energy consumption for lighting and heating during winter months" (Appendix J, p. 1). However, this response is insufficient, as the IS/MND fails to mention any consideration of solar orientation in the Project Description. Furthermore, the IS/MND fails to indicate that the Project proposes to incorporate any actual design features to achieve this measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.70: As described in Table 4.8-1 of the IS/MND, the project is designed to maximize sun exposure and reduce energy consumption. The hotel is designed to maximize the number of rooms with south-facing windows. Additionally, the four-story parking garage is situated in the northern portion of the site where it will not block sunlight reaching the windows of the hotel building. The project is, therefore, consistent with the intent of Policy MS-2.3. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.71:

2. Implementation of Green Building Measures ***MS-2.7:*** *Encourage the installation of solar panels or other clean energy power generation sources over parking areas.*	Here, the Consistency Checklist states: "The project would not include solar panels over the parking garage; however, solar panels would be installed on the rooftop of the hotel building" (Appendix J, p. 1). However, this response is insufficient. By stating that the Project would not include solar panels over the parking garage, the Consistency Checklist indicates that the Project is inconsistent with this measure. As such, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.71: Please refer to Response B.28, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.72:

2. Implementation of Green Building Measures ***MS-16.2:*** *Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.*	Here, the Consistency Checklist states: "The project applicant is committed to working with the city and the adjoining property owners towards supporting neighborhood-based distributed clean/ renewable energy generation when it becomes available in the area" (Appendix J, p. 2). However, this response is insufficient. Simply stating that the Project applicant would support neighborhood-based distributed clean/renewable energy generation fails to indicate any Project-specific measures that would encourage the promotion of this measure. Second, the Consistency Checklist states that the Project would promote neighborhood-based distributed clean/renewable energy "when it becomes available," but does not require it. As such, the Consistency Checklist fails to provide any evidence of concrete actions or measures proposed to satisfy this measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.72: Please refer to Response B.30, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.73:

3. Pedestrian, Bicycle & Transit Site Design Measures ***CD-2.1:*** *Promote the Circulation Goals and Policies in the Envision San Jose 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable and policies in the Circulation section of the Envision San Jose 2040 General Plan.* ***a)*** *Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.* ***b)*** *Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.* ***c)*** *Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.*	Here, the Consistency Checklist states: "The project includes an on-site connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and six short-term bicycle parking spaces. Bicycle access would be provided via North First Street, where Class II bike lanes currently exist along the project frontage. Upon entering the project site at the Bay Vista driveway, a two-way path is provided along the east side of Bay Vista Drive. The path continues through the project site and provides access to the Guadalupe River Trail. This path would help prevent vehicle-bicycle conflicts on the project site. Pedestrian access would be provided via this path also. Within the project site, sidewalks would provide hotel access to and from the parking garage and surface parking areas. The project would not substantially increase hazards due to bicycles or pedestrians entering and exiting the project site" (Appendix J, p. 2). However, this response is insufficient, as the Consistency Checklist fails to mention elements that increase driver awareness, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, reducedparking requirements, Transportation Demand Management strategies, de-coupled parking, or on-street parking that buffers pedestrians from vehicles. As such, the Project fails to demonstrate consistency with all aspects of this measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.73: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. As described in Table 4.8-1 of the IS/MND, the project includes bicycle and pedestrian facilities that would facilitate the use of alternative modes of transportation, thus reducing GHG emissions. The project is, therefore, consistent with the intent of Policy CD-2.1. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.74:

3. Pedestrian, Bicycle & Transit Site Design Measures ***CD-2.5:*** *Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.*	Here, the Consistency Checklist states: "As discussed in Section 2.0, Project Information, the proposed project would include shaded parking in the lower levels of the parking structure, on-site bicycle parking, would plant 30 trees on-site and would include stormwater treatment measures consistent with City post construction requirements" (Appendix J, p. 3). However, this response is insufficient for two reasons. First, while the Consistency Checklist mentions shaded parking, on-site bicycle parking, planting trees, and stormwater treatment measures, these measures are not elaborated upon in Section 2.0 of the IS/MND. Second, as previously discussed, PDFs are not mitigation measures and may be eliminated from the Project's design. Here, the IS/MND fails to require any of the above-mentioned pedestrian, bicycle & transit site-design measures, we cannot guarantee that these measures would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's supposed consistency with this aspect of the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.74: As described in Response B.69, the comment's assertion that elements of the project description necessary for consistency with the GHGRS must be identified as mitigation measures is incorrect. The IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The project description in the IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.75: A

3. Pedestrian, Bicycle & Transit Site Design Measures ***CD-3.2:*** *Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.*	Here, the Consistency Checklist states: "The project includes an on-site connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces. Within the project site, sidewalks would provide hotel access to and from the parking garage and surface parking areas" (Appendix J, p. 7). However, this response is insufficient, as the Project fails to demonstrate that it would accommodate significant anticipated future increases in bicycle and pedestrian activity. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.75: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. As described in Table 4.8-1 of the IS/MND, the project includes bicycle and pedestrian facilities that would facilitate the use of alternative modes of transportation, thus reducing GHG emissions. The proposed facilities are intended to be used by patrons and employees of the hotel to connect to other bicycle and pedestrian facilities on public thoroughfares, and are sized appropriately for that purpose. The project is, therefore, consistent with the intent of Policy CD-3.2. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.76:

3. Pedestrian, Bicycle & Transit Site Design Measures ***TR-2.8:*** *Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.*	Here, the Consistency Checklist states: "The project would include 20 long-term and six short-term bicycle parking spaces" (Appendix J, p. 4). However, this response is insufficient. While the Consistency Checklist indicates that the Project would include bicycle parking, it fails to mention showers, connections to existing and planned facilities, expansions of existing facilities, new facilities, or contributing to the cost of improvements as required by the measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.76: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and

every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. As described in Table 4.8-1 of the IS/MND, the project includes onsite bicycle facilities, as well as connections to existing and planned bicycle facilities, that would facilitate the use of alternative modes of transportation, thus reducing GHG emissions. The project is, therefore, consistent with the intent of Policy TR-2.8. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.77:

3. Pedestrian, Bicycle & Transit Site Design Measures ***TR-7.1:*** *Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies, transit incentives and other measures.*	Here, the Consistency Checklist states: "The project would be required to implement a TDM program which would include measures to support reduced vehicle trips" (Appendix J, p. 4). However, this response is insufficient, as the IS/MND fails to mention or address a TDM program whatsoever. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.77: Please refer to Response B.31, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.78:

3. Pedestrian, Bicycle & Transit Site Design Measures ***TR-8.5:*** *Promote participation in car share programs to minimize the need for parking spaces in new and existing development.*	Here, the Consistency Checklist states: "The project would be required to implement a TDM program which may include a car share program" (Appendix J, p. 4). However, this response is insufficient, as the IS/MND fails to mention or address a TDM program whatsoever. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.78: Please refer to Response B.31, which addresses a summary of the discussion in the above comment. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.79:

4. Water Conservation and Urban Forestry Measures ***MS-3.1:*** *Require water-efficient landscaping, which conforms to the state's Model Water Efficient Landscape Ordinance (MWELO), for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.*	Here, the Consistency Checklist states: "The proposed project would include use of low water use plants and irrigation systems consistent with the State's MWELO requirements" (Appendix J, p. 4). However, this response is insufficient for two reasons. First, simply stating that the Project would include low water use plants and water-efficient irrigation systems does not provide substantial evidence that these measures would be implemented, monitored, and enforced on the Project site. Second, even though the Project demonstrates consistency with the State's Model Water Efficient Landscape Ordinance does not guarantee that the Project would include water-efficient landscaping, as required by the measure. As such, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.79: As described in Response B.69, the IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.80:

4. Water Conservation and Urban Forestry Measures ***MS-3.2:*** *Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.*	Here, the Consistency Checklist states: "The project would utilize recycled water for landscape irrigation" (Appendix J, p. 4). However, this response is insufficient. Simply stating that the Project would "utilize recycled water for landscape irrigation" does not provide substantial evidence that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.80: As described in Response B.69, the IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design

review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.81:

4. Water Conservation and Urban Forestry Measures ***MS-19.4:*** *Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.*	Here, the Consistency Checklist states: "The project would utilize recycled water for landscape irrigation" (Appendix J, p. 4). However, this response is insufficient. Simply stating that the Project would "utilize recycled water for landscape irrigation" does not provide substantial evidence that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.81: As described in Response B.69, the IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.82:

4. Water Conservation and Urban Forestry Measures ***MS-21.3:*** *Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of treespecies and their lifespan to ensure the perpetuation of the CommunityForest.*	Here, the Consistency Checklist states: "The proposed trees would have low water requirements and are suitable for San José's climate. The project would plant diverse species" (Appendix J, p. 5). However, this response is insufficient, as the IS/MND fails to mention or support the claim that the Project would incorporate trees that have low water requirements, and plant diverse species. As a result, we cannot confirm that this measure would be implemented, monitored, and enforced on the Project site. Thus, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.82: As described in Response B.69, the IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not

provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.83:

4. Water Conservation and Urban Forestry Measures ***MS-26.1:*** *As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.*	Here, the Consistency Checklist states: "The project would be required to comply with the City's tree replacement policy and would result in 30 trees being planted." (Appendix J, p. 5). However, this response is insufficient. Simply stating that the Project would comply with the City's tree replacement policy does not provide substantial evidence that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.83: Compliance with the City's tree replacement policy is required for all projects as a standard condition of approval. Standard conditions are incorporated into projects regardless of a project's environmental determination. Standard conditions are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects. The IS/MND assumes that tree replacement will be implemented by the project as required by the City. Standard conditions of approval are enforced through actions such design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.84:

4. Water Conservation and Urban Forestry Measures ***ER-8.7:*** *Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.*	Here, the Consistency Checklist states: "The proposed project includes water-efficient landscaping that does not warrant use of irrigation such that rain barrels, cisterns, or water storage facilities would be necessary" (Appendix J, p. 5). However, this response is insufficient. Simply stating that the Project would include water-efficient landscaping does not excuse the installation of measures such as rain barrels, cisterns, or water storage facilities that would encourage stormwater reuse on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, andthe less-than-significant impact conclusion should not be relied upon.

Response B.84: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement

measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. The intent of Policy ER-8.7, in the context of GHG emissions reduction, is to reduce energy use associated with water pumping and conveyance. By utilizing water efficient landscaping, the project is reducing water demand on the site consistent with the intent of Policy ER-8.7. Any additional reduction in GHG emissions from rainwater harvesting or the use of water storage facilities on the site would be negligible. The vast majority of rainfall occurs during a three- to four-month period in the rainy season, a time when irrigation demand is at its minimum. The volume of rainwater collection that could be practicably accommodated on the site would not make a meaningful contribution to the overall irrigation requirements during the dry season, at least in the context of GHG emissions from water conveyance. Additionally, storage of water for long periods of time on the site for eventual use during the dry season has the potential for vector problems. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.85:

Renewable Energy Development 1. *Install solar panels, solar hot water, or other clean energy power generation sources on development sites, or* 2. *Participate in community solar programs to support development of renewable energy in the community, or* 3. *Participate in San José Clean Energy at the Total Green level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project.* 4. *Supports Strategies: GHGRS #1, GHGRS #3*	Here, the Consistency Checklist states: "The project includes installation of solar panels on the rooftop of the hotel building" (Appendix J, p. 5). However, this response is insufficient, as the use of on-site renewable energy is not included as a mitigation measure. As previously discussed, PDFs are not mitigation measures and may be eliminated from the Project's design. Here, the IS/MND fails to require the Project to install solar panels on the rooftop of the hotel building, we cannot guarantee that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.85: As described in Response B.69, the comment's assertion that elements of the project description necessary for consistency with the GHGRS must be identified as mitigation measures is incorrect. The IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The project proposes solar panels on the roof of the hotel building; therefore, the proposed solar panels are considered part of the project and need not be identified as mitigation measures. The project description in the IS/MND describes the project as shown on project application materials submitted to the City. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.86:

Zero Waste Goal 1. *Provide space for organic waste (e.g., food scraps, yard waste) collection containers, and/or* 2. *Exceed the City's construction & demolition waste diversion requirement.*	Here, the Consistency Checklist states: "Organic waste containers will not be provided for the proposed hotel. However, the proposed project would meet the City's construction and demolition waste diversion requirements" (Appendix J, p. 6). However, this response is insufficient, as the IS/MND only claims that the Project would "meet the City's construction and demolition waste diversion requirements," not exceed, as the measure mandates. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.86: The text in the IS/MND stating that the project would merely meet the City's construction and demolition waste diversion requirements is incorrect. The text of the IS/MND will be revised to clarify that the project would exceed the City's requirement (refer to Section 4.0 Initial Study Text Revisions, below). The revised text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.87:

Caltrain Modernization 1. *For projects located within 1/2 mile of a Caltrain station, establish a program through which to provide project tenants and/or residents with free or reduced Caltrain passes; or* 2. *Develop a program that provides project tenants and/or residents with options to reduce their vehicle miles traveled (e.g., a TDM program), which could include transit passes, bike lockers and showers, or other strategies to reduce project related VMT.* ***Supports Strategies: GHGRS #6***	Here, the Consistency Checklist states: "The project would be required to implement a TDM program which would include measures to support reduced vehicle trips" (Appendix J, p. 6). However, this justification is insufficient. While the Consistency Checklist mentions developing a TDM program, the IS/MND and associated documents fail to provide any evidence of concrete actions or proposed measures incorporating this strategy. As a result, we are unable to verifythe Project's consistency with the GHGRS, and the less-than- significant impact conclusion should not be relied upon.

Response B.87: As discussed in response B.31, the text in the IS/MND stating that the project would develop a TDM plan is incorrect. The text of the IS/MND will be revised to remove such references (refer to Section 4.0 Initial Study Text Revisions, below). The revised text does not constitute a substantial change to the analysis in the IS/MND nor suggest a prior inadequacy of the IS/MND or the CEQA analysis.

Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects

need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. As described in Table 4.8-1 of the IS/MND, the project includes dedicated onsite bicycle parking, is located in proximity to transit services and bicycle facilities, and includes onsite connections to provide access to those facilities, thus reducing GHG emissions. The project is, therefore, consistent with the intent of option 2 under Caltrain Modernization in the GHGRS Compliance Checklist. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.88:

Water Conservation 1. *Install high-efficiency appliances/fixtures to reduce water use, and/or include water-sensitive landscape design, and/or* 2. *Provide access to reclaimed water for outdoor water use on the project site.*	Here, the Consistency Checklist states: "The proposed project would include high-efficiency fixtures to reduce water usage and would utilize recycled water for landscape irrigation." (Appendix J, p. 6). However, these responses are insufficient for two reasons. First, the IS/MND fails to mention or support the claim that the Project would "utilize recycled water for landscape irrigation." Second, as previously discussed, PDFs are not mitigation measures and may be eliminated from the Project's design. Here, the IS/MND fails to require "high-efficiency fixtures" or the use of "recycled water for landscape irrigation" through mitigation. As such, we cannot guarantee that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

Response B.88: As described in Response B.69, the comment's assertion that elements of the project description necessary for consistency with the GHGRS must be identified as mitigation measures is incorrect. The IS/MND analyzed the impacts of the project as proposed, as required under CEQA. The project description in the IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.89: As the above table indicates, the IS/MND fails to provide sufficient information and analysis to determine Project consistency with all of the measures required by the GHGRS. As a result, we cannot verify that the Project is consistent with the GHGRS, and the IS/MND's less-than-significant GHG impact conclusion should not be relied upon. We recommend that an EIR include further information and analysis demonstrating the Project's consistency with the GHGRS.

Response B.89: Please refer to Response B.27 for a discussion of the project's consistency with the GHGRS as a whole. As described in the previous response, projects do not need to be strictly consistent with the precise language of each and every policy listed in the Compliance Checklist to be consistent with the GHGRS as a whole; rather, projects need to be consistent with the General Plan and implement measures to reduce GHG emissions in a manner consistent with the strategies of the GHGRS. Based on a review of the project plans and the GHGRS Compliance Checklist completed for the project, the City has determined that the project is consistent with the GHGRS and, therefore, would not result in significant impacts related to GHG emissions. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

Comment B.90: Design Features Should Be Included as Mitigation Measures
Our analysis demonstrates that the Project would result in potentially significant health risk and GHG impacts that should be mitigated further. We recommend that the IS/MND implement all project design features and regulatory compliance measures as formal mitigation measures. As a result, we could guarantee that these measures would be implemented, monitored, and enforced on the Project site. Including formal mitigation measures by properly committing to their implementation would result in verifiable emissions reductions that may help reduce emissions to less-than-significant levels.

Response B.90: As described in Response B.69, the comment's assertion that elements of the project description necessary for consistency with the GHGRS must be identified as mitigation measures is incorrect. As required under CEQA, the IS/MND analyzed the impacts of the project as proposed, including an assumption of compliance with all applicable regulatory requirements. The project description in the IS/MND describes the project as shown on project application materials submitted to the City, which include the specific project elements discussed in the comment. These application materials are subject to review and approval by the City, and the City ensures compliance and consistency with City requirements through enforcement actions such as design review, plan check, permit issuance, and building inspection. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant GHG impacts.

C. Oganizacion Comunidad de Alviso (dated November 1, 2021)

Comment C.1: Rejects the IS/MND because it relies on inadequate information in regards to air quality, noise, traffic etc.

> **Response C.1:** This comment does not provide any evidence supporting the claim that the IS/MND relies on inadequate information. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts. Therefore, no further response is required.

Comment C.2: Further this project violates CEQA's piecemealing rules and regulations. This project should have been studied in the original MND for the Topgolf project which would have triggered significant impacts if considered as a whole instead of piece by piece. We demand a full EIR to be generated so that the community can evaluate true impacts related to the entire project as one.

> **Response C.2:** This comment does not provide any evidence supporting the claim that the IS/MND relies on inadequate information. Therefore, no further response is required. This project was not proposed at the time the Topgolf @ Terra IS/MND was prepared and, therefore, no analysis could have been completed regarding its potential environmental impacts as it would be considered speculative. The IS/MND prepared for the proposed project takes into consideration cumulative impacts associated with the Topgolf @ Terra project, as shown in Section 4.3 Air Quality and Section 4.21 Mandatory Findings of Significance. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

D. Oganizacion Comunidad de Alviso (dated November 4, 2021)

Comment D.1: Per the Alviso Master Plan height restrictions apply here. Page 59, 60 gives details 45 feet tall buildings allow within the project site.

This project would go against the AMP policy.

> **Response D.1:** As described on page 26 of the IS/MND, the maximum allowed height on site is 65 feet as a result of a prior text amendment to the Alviso Master Plan, and by extension the Envision San José 2040 General Plan, which changed the maximum allowable building height for properties on the west side of North First Street between Liberty and Tony P. Santos streets, including the project site. The proposed building height for the project is 65 feet, which is consistent with the Alviso Master Plan and Envision San José 2040 General Plan. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment D.2: Furthermore, the soil studies are inaccurate language like “may” or “likely” are really guess work instead of real current and accurate studies. For example asbestos samples taken on the site but unknown where they were taken. The entire project site is over 30 acres because of this

the analysis are only guessing where previous samples were taken. The analysis fail to identify the two abandoned gas stations that operated in Alviso one shutting down after the 1983 flood.

I believe a full EIR report would be essential to provide more adequate impacts to the Alviso Community.

Please submit this in the public record for my additional comments and opposition to the IS/MND study.

Response D.2: The IS/MND acknowledges that the residual soil contamination may exist on the site. Specifically, regarding the potential for asbestos contamination in soils on the site, as stated on page 113 of the IS/MND, "(b)ecause the testing locations are unknown and did not include a portion of the site, asbestos may be present in the undocumented fill in areas of the site that were not previously tested." Further, as described on page 117 of the IS/MND, a Soil Management Plan (SMP) has already been prepared for the site to remediate any residual contamination, and the SMP has been reviewed and approved by the Regional Water Quality Control Board (RWQCB). The IS/MND includes a mitigation measure (MM HAZ-1.1) requiring implementation of the SMP under the oversight of the RWQCB. Implementation of MM HAZ-1.1 would ensure any impacts related to soil contamination are mitigated to a less than significant level.

The commenter mentions two abandoned gas stations that operated in Alviso. The commenter provides no information regarding the locations of those gas stations, whether they were located on or near the site, or whether any contamination was associated with those gas stations that may affect the project site. As discussed in Section 4.9 (Hazards and Hazardous Materials) of the IS/MND, neither the records searches nor the Phase I prepared for the project identified potential sources of hazardous contamination on the project site. In addition, no Total Petroleum Hydrocarbons (TPH) as gasoline or diesel were detected in any of the soil samples on the project site. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

E. Pacific Gas and Electric Company (dated October 14, 2021)

Comment E.1: Thank you for submitting the Alviso Hotel Project plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building- and-renovation/overview/overview.page.

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

> **Response E.1:** The applicant will comply with all applicable permit application requirements, as described by PG&E in the comment above. The project's estimated PG&E needs have been identified in the IS/MND under Section 4.6 Energy and Section 4.19 Utilities and Service Systems. The applicant will coordinate with PG&E on any plan review or CPUC Section 851 filing. This comment does not provide new information that would change the project's impact, provide new information that would require additional analysis or result in new significant impacts or mitigation measures beyond those already analyzed and disclosed in the IS/MND and associated appendices. The comment does not present new information that would require recirculation of the IS/MND pursuant of CEQA Guidelines Section 15073.5.

F. Pacific Gas and Electric Company (dated November 12, 2021)

Comment F.1: Thank you for providing PG&E the opportunity to review your proposed plans for PD19-031 dated 10-14-2021. Our review indicates your proposed improvements do not appear to directly interfere with existing PG&E facilities or impact our easement rights.

Please note this is our preliminary review and PG&E reserves the right for additional future review as needed. This letter shall not in any way alter, modify, or terminate any provision of any existing easement rights. If there are subsequent modifications made to your design, we ask that you resubmit the plans to the email address listed below.

If you require PG&E gas or electrical service in the future, please continue to work with PG&E's Service Planning department: https://www.pge.com/cco/.

As a reminder, before any digging or excavation occurs, please contact Underground Service Alert (USA) by dialing 811 a minimum of 2 working days prior to commencing any work. This free and independent service will ensure that all existing underground utilities are identified and marked on-site.

If you have any questions regarding our response, please contact the PG&E Plan Review Team at (877) 259-8314 or pgeplanreview@pge.com.

Response F.1: The applicant has been provided PG&E's comment letter in full and the project permit includes a condition to coordinate with PG&E prior to construction activity.

G. Robin Roemer (dated November 7, 2021)

Comment G.1: Comment on IS/MND for Alviso Hotel Project – File Number: PD19-031

The IS/MND incorrectly screens the project from detailed VMT analysis required by CEQA and the City of San José's Transportation Analysis Handbook.

As the transportation analysis itself notes: "The City's screening criteria for VMT screening criteria does not provide a metric to be used for a hotel or similar lodging-related land use."

The study than tries to work around the issue by postulating that for VMT screening purposes a hotel land use would be similar to a local serving retail operation generating an equivalent number of daily trips.

Yet, the study presents no substantial evidence to support conclusion, quite on the contrary, the few arguments presented are speculative at best, do not hold up under scrutiny or lead to actually different conclusions.

Response G.1: The City of San José Council Policy 5-1 identifies/describes hotels as retail land uses. It is expected that the origin and destination of daily trips and resulting VMT generated by hotel uses would be similar to that of local-serving retail. Typically adding retail opportunities into the urban fabric and thereby improving retail destination proximity to residents, local-serving retail development tends to shorten trips and reduce VMT. Similarly, the introduction of hotel uses in areas with supporting uses such as employment, entertainment, and retail uses will reduce and shorten trips that would otherwise be made between these uses and hotels located at further distances. Therefore, for the purpose of VMT evaluation, hotel uses are converted to equivalent retail space. To apply the City retail screening criteria for hotel projects, the IS/MND estimated the daily hotel trips using ITE standard rate for hotels (ITE Land use 310) and then converted the hotel-specific trip generation estimate to equivalent retail square footage, per the City's standard practice. Additionally, the City of San José's Transportation Analysis Handbook describes why retail land uses of 100,000 square feet or less are assumed to be "local serving"/redistributes existing trips instead of creating new trips; this assumption is supported by published data (reference in Handbook)." As noted on page 14 of the

Local Transportation Analysis, similar to the characteristics of a "local serving retail" land use, the hotel has less potential to generate new trips or VMT; it is more likely to divert trips from an existing use, because this new development is in some way more attractive in its location, setting, or otherwise to the traveler. In the case of the proposed project, the hotel would attract existing hotel trips from the surrounding office developments and would not on its own generate new trips. Figure 4 of the Transportation Analysis (Appendix I of the IS/MND) shows similar hotel land uses located within the vicinity of the project site. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment G.2: False Argument #1: "Based on conversations with City Staff, it was determined that for VMT screening purposes the conversion of the hotel trip estimates to equivalent shopping center trip estimates would be appropriate to determine the size of a comparable retail site."

This paragraph is conclusory in nature and does not present substantial evidence.

Response G.2: Please refer to Response G.1 above. The analysis of VMT impacts in the IS/MND was completed in accordance with the City's Transportation Analysis Handbook and is supported by substantial evidence. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment G.3: False argument #2: "The Project is not expected to have an increase on overall VMT within the City."

This is again conclusory. Without an actual VMT analysis it cannot be said if the project would increase overall VMT or not.

Response G.3: The analysis of VMT impacts in the IS/MND was completed in accordance with the City's Transportation Analysis Handbook and is supported by substantial evidence. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment G.4: False Argument #3: "It will likely shorten existing trips currently occurring to other similar uses, thereby reducing overall VMT."

This statement is speculative and incorrect. The project site is on the outskirts of the city. Travelers lodging at the hotel site will have to drive all the way out there from an airport such as SFO or SJC, will then return to the city/office areas to attend meetings and return to the airport. Therefore, hotels that are located in between the airport and the travel destination/office would shorten trips, projects such as the proposed that are out of the way of the regular travel path will likely lengthen trips.

Response G.4: The proposed project is a hotel that is intended to connect existing land uses within the Alviso area, not attract new trips itself. The primary intent of the hotel would cater towards patrons of nearby businesses traveling for business. The hotel would rely on nearby existing office, or other various land uses attracting out-

of-town visitors, to supply those patrons. Those existing land uses currently produce trips, and as is stated in the Transportation Analysis and Section 4.17 of the Initial Study, the new hotel "is more likely rather to divert trips from an existing use, because this new development is in some way more attractive in its location, setting, or otherwise to the traveler." Figure 4 of the Transportation Analysis (Appendix I of the IS/MND) shows similar hotel land uses located within the vicinity of the project site.

While the hotel would predominantly attract office users, it should not be characterized as a land use similar to an office use because it does not have similar trip-generating potential. As is stated, the hotel would attract existing hotel trips from the surrounding office developments. Without the proposed project, those trips still exist and likely originate from hotels located further from the office destinations. The project provides an additional lodging option within the Alviso area for those drivers or "trips" that already exist.

The analysis of VMT impacts in the IS/MND was completed in accordance with the City's Transportation Analysis Handbook and is supported by substantial evidence. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment G.5: False Argument #4: "Similar to the characteristics of a "local serving retail" land use, the hotel has less potential to generate new trips or VMT; it is more likely rather to divert trips from an existing use, because this new development is in some way more attractive in its location, setting, or otherwise to the traveler."

This statement is again speculative and incorrect. It assumes that the lodging market is oversupplied and that additional lodging capacity would not serve new demand. There is no substantial evidence that this is the case in the Silicon Valley lodging market, quite on the contrary there is an undersupply of lodging capacity and an increase in travel is expected by studies for the City, the airport and presumably the investor of this very project.

Response G.5: As discussed under Response G.4, the proposed hotel project is intended to connect existing land uses within the Alviso area, not attract new trips itself. The hotel would rely on nearby existing office, or other various land uses attracting out-of-town visitors, to supply patrons. Those existing land uses currently produce trips, and as is stated in the Transportation Analysis and Section 4.17 of the Initial Study, the new hotel "is more likely rather to divert trips from an existing use, because this new development is in some way more attractive in its location, setting, or otherwise to the traveler." Figure 4 of the Transportation Analysis (Appendix I of the IS/MND) shows similar hotel land uses located within the vicinity of the project site. The analysis of VMT impacts in the IS/MND was completed in accordance with the City's Transportation Analysis Handbook and is supported by substantial evidence. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment G.6: Argument #5: "In the case of the proposed Project, the hotel would attract existing hotel trips from the surrounding office developments."

This statement suggests that the hotel would be a land-use supporting office use. A good argument could be made that the hotel is therefore a land-use similar to an office.

> **Response G.6:** As discussed under Response G.4, the hotel would likely predominantly attract office users, but it should not be characterized as a land use similar to an office use because it does not have similar trip-generating potential. As is stated, the hotel would attract existing hotel trips from the surrounding office developments. Without the proposed project, those trips still exist and likely originate from hotels located further from the office destinations. The project provides an additional lodging option within the Alviso area for those drivers or "trips" that already exist. The analysis of VMT impacts in the IS/MND was completed in accordance with the City's Transportation Analysis Handbook and is supported by substantial evidence. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

Comment G.7: Conclusion

The analysis presents no valid argument and most certainly no substantial evidence that local-servicing retail and hotel use are comparable land uses for a CEQA VMT analysis.

Quite on the contrary, there are significant differences between local servicing retail and hotel land uses:

Retail is serving mostly local residents while hotels serve long-distance travelers

Retail has a high trip generation rate of 37.75 trips per 1000SF, hotels have a low trip generation rate of 8.36 per 1000SF. This is easily understandable as retail generally frequented for only short amount of times (~1h) while hotels typically have much longer stays (~8h). Nowhere does the study indicate that the hotel would rent rooms by the hour which then might indicate a land use similar to retail.

Also, the hotel land-use could be compared to residential development as that the land use mostly closely resembling it functionally. This seems to be what the City of San José has done in other projects.

> **Response G.7:** Please refer to Responses G.2 and G.6 above. Given that the City's VMT screening criteria does not provide a metric to be used for a hotel or similar lodging-related land use, the conversion to equivalent retail square footage serves as an accepted best practice per the City's Transportation Analysis Handbook. This conversion calculation does not suggest that the ITE Trip Generation rates for Retail and Hotels are similar; it uses these independent rates to estimate a number of generated trips for the hotel land use, then back calculates an equivalent retail square footage to be applied for VMT screening purposes. The analysis of VMT impacts in the IS/MND was completed in accordance with the City's Transportation Analysis Handbook, which provides guidelines on analyzing VMT impacts according to the

City's standards. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts.

H. Santa Clara Valley Audubon Society, Citizens Committee to Complete the Refuge (dated November 10, 2021)

Comment H.1: The Santa Clara Valley Audubon Society, Citizens Committee to Complete the Refuge, and Green Foothills submit the following comments on the Initial Study and Mitigated Negative Declaration (IS/MND) for the Alviso Hotel Project (PD19-031), a Planned Development (PD) Permit to allow the construction of an approximately 112,463-square foot, 214-room hotel in a five-story building. The northeast and northwest sections of the site would include surface parking with 21 parking spaces, and a four-story parking garage with 213 spaces, for a total of 234 parking spaces. The project is located at an undeveloped approximately 6.23-acre lot located south of North First Street and north of Highway 237 in the Alviso area of San José. Here are our concerns:

1) Segmentation of CEQA review

During the CEQA review for the previous Project on the same property (Topgolf@Terra Project, File NO PDC16-013[38]), Comment G-21 on the IS/MND was submitted by several environmental groups. The comment focused on the loss of open space on the project site, especially loss of foraging habitat for burrowing owls. The comment suggested potential mitigation for this loss, including leaving one-third of the 36-acre property in open space or preserving alternate open space in the Alviso area, with management of that area designed to maximize benefits to rare plants, wetlands, and burrowing owls, as well as for the more common species found in the Alviso area.

Response G-21 to this comment stated, "A 5.8 acre undeveloped area at the far eastern end of the site would remain undeveloped with the proposed project". The response states that the only open space loss is related to a "*three-acre area on the far western end of the site that is currently undeveloped and consists of ruderal grassland that would be developed as part of the project. This area consists of a vacant lot that has been fenced off and is regularly disturbed with disking. It is surrounded on all sides by urban development."* The 3 acres were not considered valuable habitat for any special-status species, but there was no similar statement regarding the 5.8 acres that were expected to remain open space. This response allowed the Topgolf@Terra Project MND to find no significant impacts related to the loss of open space.

The 5.8 acres are now proposed to be developed. At this time, the Topgolf facility and its parking have been developed. The 110,000 square feet of commercial/retail space and 200 room hotel have not been developed.

[38] https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/negative-declaration-initial-studies/topgolf-terra-project

In the MND for the Topgolf@Terra Project, the conceptual site map shows the 5.8 acres are now proposed to be developed. At this time, the Topgolf facility and its parking have been developed. The 110,000 square feet of commercial/retail space and 200 room hotel have not been developed.

In the MND for the Topgolf@Terra Project, the conceptual site map shows the 5.8 acres as "Not Part of Improvements[39]", but the Amendment to the Alviso Master Plan (and this, to the Envision 2040 General Plan) included this area in allowing taller maximum allowable building and other structure heights.[40]

This, it seems that a fully developed site, with two hotels, has been foreseeable all along.

> CEQA forbids 'piecemeal' review of the significant environmental impacts of a project. (Berkeley Keeps Jets Over the Bay Com v. Board of Port Commissioners (2001) 91 Cal App.4th 1344, 1358; and Laurel Heights I, supra, 47 Cal 3d at 396 ["Laurel Heights I"]; and Guidelines 15165). When a specific project contemplates future expansion, the lead agency is required to review all phases of the project. (Laurel Heights I, supra, 47 Cal .3d at 376; see also Banning Ranch Conservancy v. City of Newport Beach (2012) 211 CalApp.4th 1209, 1224 [improper piecemealing occurs when "the purpose of the reviewed project is to be the first step toward future development"]).

This requirement reflects CEQA's broad definition of "project" as "the whole of an action" that may impact the environment. (Guidelines 15378; and see Habitat & Watershed Caretakers v. City of Santa Cruz (2013) 213 CalApp.4th 1277, 1297). What constitutes the "whole of an action" is a question of law that courts independently decide. (Tuolumne County Citizens for Responsible Growth, Inc. v City of Sonora (2007) 155 Cal App.4th 1214, 1224. "[T]he requirements of CEQA cannot be avoided by chopping up proposed projects into bite-size pieces which, when taken individually, may have no significant adverse effect on the environment." (Id at 1222-1223.)

In Laurel Heights I, supra, 47 Cal.3d 376, the Supreme Court explained that an agency must analyze the effects of potential future development if such development is: (1) "a reasonably foreseeable consequence of the initial project;" and (2) "will likely change the scope or nature of the initial project or its environmental effects." (Id. At 396.)

Analyzing only part of the full project for the Topgolf@Terra Project allowed the developer and the City to find no significant unmitigable impacts to open space and biological resources. This is especially concerning since the responses to comments allayed public concern by stating that this

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[39] http://www.sanjoseca.gov/home/showpublisheddocument/27827/637145324863900000, Conceptual Site Plan Figure 3.0-1

[40] Alviso Master Plan Amendment: Page 55: Village Area Guidelines for Commercial Development, Section 5 Development Standards, Subsection A. Height 40 feet, 2 stories above flood elevation.
For properties on the west side of North First Street between Liberty and Tony P. Santos Streets, the maximum allowable building height shall not exceed 65 feet, 5 stories above flood elevation. Non-building structural uses, including structures on top of or attached to buildings, such as but not limited to, energy saving devices, wireless communication antennae, net poles, and other associated structures through the development project review shall establish a specific height, not to exceed the maximum allowable height of 170 feet on sites with non-residential or non-urban land use designations.

part of the property will remain undeveloped. Now, they seek to develop this remnant of the property. This is a clear example of unlawful segmentation of CEQA review. The proposed new project PD19-031 must prepare a full EIR and analyze the entire original property, including all lands that are currently undeveloped, to assess impacts to open space, biological resources and other environmental resources.

Response H.1: When the Topgolf @ Terra IS/MND was prepared in 2016, the Alviso Hotel project site was identified as a 5.8-acre undeveloped area at the far eastern end of the site that would remain undeveloped with the proposed Topgolf @ Terra project. The application for this project was submitted in October of 2019. This project was not proposed at the time the Topgolf @ Terra IS/MND was prepared and, therefore, no analysis could have been completed regarding its potential environmental impacts. This project and its associated environmental impacts were not reasonably foreseeable at the time the Topgolf @ Terra IS/MND was prepared and, thus, it is not considered segmentation under CEQA. The IS/MND prepared for the proposed project includes project-specific reports, including a Biological Resources Assessment, and takes into consideration cumulative impacts associated with the Topgolf @ Terra project , as shown in Section 4.3 Air Quality and Section 4.21 Mandatory Findings of Significance. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts requiring preparation of an EIR.

Comment H.2: 2) Impacts to California species of special concern

Six California species of special concern, the Western pond turtle (Actinemys marmorata), northern harrier (Circus cyaneus), burrowing owl (Athene cunicularia), loggerhead shrike (Lanius ludovicianus), San Francisco common yellowthroat, and Alameda song sparrow, may be present on the Project site, as well as the white-tailed kite, a fully protected species. Impacts to all these species should be discussed.

Western pond turtle
The remnant meander of the Guadalupe River which remains a wetland at the edge of the project may host Western pond turtles. The Project IS/MND mentioned the Western pond turtle only in a footnote as related to species covered by conditions of the Santa Clara Valley Habitat Plan HCP/NCCP (VHP) on page 66 of the IS). The Biological report proposes that Western pond turtles are not likely to be found here because *"the Project Area lacks suitable stream and river habitat. Water features adjacent to the Project Area do not possess suitable substrates for basking or emergent vegetation for cover, and appear to have very poor water quality".* However, turtles live a very long time. We believe that it is reasonable to expect that turtles may survive here given that a breeding population of Western pond turtles is present at Moffett Field and the brackish Moffett Channel (Nyhof 2013), three miles from the project site, which has some similar characteristics. A survey to determine presence of this species should be done prior to issuance of any grading or building permits, and the California Department of Fish and Game should be consulted if turtles are found.

Response H.2: In the biological report prepared for this project (Appendix B of the IS/MND), WRA found that northern harrier, white-tailed kite, and burrowing owl all had potential to occur within the project area, and described impacts and mitigation measures accordingly. Habitat for the other avian species addressed in this comment (loggerhead shrike , San Francisco common yellowthroat, and Alameda song sparrow), was found to be absent, mainly due to the fact that no marsh habitats or dense vegetation are present within the project footprint. Regardless, mitigation measure MM BIO-1.2 included in the IS/MND requiring a nesting bird survey would serve to reduce the impact to any nesting bird species, including those with special-status, to a less than significant level.

Although western pond turtle may be present in nearby brackish water, this is not typical aquatic habitat for this species, and no other suitable freshwater aquatic habitat exists within the project area. WRA and the City acknowledge, however, that western pond turtle has been documented rarely within brackish habitats of the southern arm of the San Francisco Bay. Regardless, even if western pond turtle were to be present in the Guadalupe River, WRA and the City maintain that it would be unlikely to occur within the project area. This is mainly due to the thick and difficult to traverse vegetative strip, which is also devoid of basking habitat, between open water and terrestrial habitat, and the presence of a high-traffic bike and pedestrian path (paved right-of-way) that act as a partial barrier to dispersal between aquatic habitat and the project area. Individual turtles would have to traverse a reasonable distance and several obstacles prior to being able to nest within the project area. Destruction of western pond turtle nests are the chief consideration for a significance determination for this species under CEQA, and WRA and the City determined that this species is unlikely to nest within the project area. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts

Comment H.3: Burrowing owls
MM BIO-1.3: The Project proposes to mitigate impacts to burrowing owls by complying with Condition 15 of the VHP and pay burrowing owl impact fees to the Santa Clara Valley Habitat Agency (Habitat Agency). Preconstruction surveys are also required. We maintain that additional measures are required to mitigate significant and unavoidable impacts to the species and its persistence in the South Bay.

Southern Santa Clara County, where the Project is proposed, is widely recognized as the last strong-hold of nesting burrowing owls in Santa Clara County (Albion Environmental, Inc. 2010). Burrowing owl numbers have declined significantly since the 1980s in this region (DeSante, et al. 2007). Loss of nesting and foraging habitat are key reasons for the decline (Trulio and Chromczak 2007). All of these birds are found in the grasslands at the edge of the Bay from Palo Alto to Milpitas and at the San Jose International Airport (Trulio and Chromczak 2007, Albion Environmental, Inc. 2007). Monitoring efforts by the Habitat Agency show that the burrowing owl population of Santa Clara County has declined by 60% since the implementation of the Habitat Plan in 2014, and the production of chicks has declined by more than 50%. The primary reason for the decline is the development and loss of habitat around core population areas.

The Habitat Agency, which implements the Valley Habitat Plan, has been supporting studies and programs aimed to recover the burrowing owl population. These programs include overwintering of juveniles, captive breeding, controlled release and supplemental feeding. One of the core recovery areas is the San Jose / Santa Clara Regional Wastewater Facility (RWF), where young pairs of owls from captive overwintering and breeding programs are released to breed and produce offspring. With grants from the City of San Jose and the Habitat Agency, SCVAS staff has been engaged in habitat enhancements, monitoring owl populations, and breeding success at the RWF since 2013.

The Habitat Agency 2020 Burrowing Owl Breeding Season Survey Report[41] (Executive Summary, page 6) concluded, "the goal of establishing a stable, then increasing owl population is not being met". The failure is, to a large extent, associated with the small number of remaining individuals, and "pairs of burrowing owls in the South Bay were limited to only four breeding sites. This regional contraction in range exposes the breeding population to stochasticity and therefore a high risk of local extirpation, especially because all these sites are facing increasing pressure from encroaching development. While burrow availability and foraging habitat have been reduced, the rate of disturbance and predation pressure has increased. Habitat protection and management at current breeding sites is imperative" (Page 23, emphasis added).

The decline in this critical breeding population continues into 2021, despite the investment of hundreds of thousands of dollars in recovery efforts. The following table has been presented at the Santa Clara Valley Habitat Agency Fall Burrowing Owl Conservation Strategy Meeting (November 2021):

These monitoring results show that the burrowing owl population in the South Bay is teetering on the edge of extirpation. In the nesting season of 2021, only 36 adult burrowing owls have been recorded in the South Bay. A third of the adult owls were found at the RWF.

From the standpoint of habitat quality, the proposed Project site has many features that make it excellent foraging habitat for burrowing owls. It has almost no trees, a valuable quality both for burrowing owl nesting and foraging. The ruderal grassland and scrub vegetation are ideal habitats to support large insects and small rodents, which are key and important prey items for burrowing owls in general and in this region (Haug, et al. 1993, Higgins 2007).

The RWF is situated about half a mile to a mile from this Project site, well within the foraging range of birds from the RWF area (see home ranges in Haug et al., 1993). Thus, birds from the RWF site are likely to include the Project site in their foraging activities. The loss of the habitat on the Project site will this exacerbate the decline in foraging habitat available to burrowing owls, and therefore the number of owls that may be supported in the area. Reduced open space and habitat results not only in reduced foraging areas, but also in increased predation pressure on burrowing owls at the RWF.

The synergistic impact of loss of foraging habitat and increased predation is hampering recovery efforts in Santa Clara County (Mr. Phillip Higgins, Santa Clara Valley Habitat Agency Fall

[41] http://www.scv-habitatagency.org/DocumentCenter/View/1387/SCVHA-BUOW-Report-2020_Dec-8

Burrowing Owl Conservation Strategy Meeting, November 2021) and contributes to the failure of the Habitat Agency to achieve its goals.

We believe that at this critical time in the recovery efforts, the loss of about 6 acres of prime foraging habitat within a mile of the RWF breeding area will result in a significant loss of burrowing owl foraging habitat in the City of San Jose. Compounded by increasing predation and loss of individual owls at the RWF, this Project could ultimately affect the number of birds able to be supported in the area, especially at the RWF. Thus, the project has the potential to jeopardize recovery efforts. This impact should be considered a significant and unavoidable impact of the project.

> **Response H.3:** The City acknowledges the importance of burrowing owl conservation in this region, particularly given the population known to be present in the Alviso area. While WRA and the City do not agree that the project area represents "prime foraging habitat" given a relative lack of quality foraging opportunities and burrows or burrow surrogates on the site as compared to other nearby open space areas, the IS/MND includes mitigation measure MM BIO-1.3 to prevent direct harm to owls and reduce the project's impact to a less than significant level. MM BIO-1.3 requires compliance with Condition 15 of the HCP including pre-construction surveys for burrowing owls. Additionally, as described in Response B.51 above, the project's application and payment of fees to the SCVHP will directly contribute to the conservation of this species in the region. Coverage of the project by the habitat plan, coupled with pre-construction surveys for this species, serve to reduce project impacts to burrowing owl and its habitat to a less than significant level. This comment does not provide substantial evidence supporting a fair argument that the project would result in significant environmental impacts

Comment H.4: We believe that substantial evidence supports our fair argument that at this time, mitigation in the form of the payment to the Habitat Agency to maintain and improving habitat is important and should be required of this project, but payment will not reduce the impact of loss of habitat in Alviso to a less than significant levels, and this the finding of no significant impact after mitigation cannot be made. An EIR and Statement of Overriding Considerations after mitigation are needed.

We thank you for the opportunity to provide comments.

> **Response H.4:** As demonstrated in the detailed responses to comments above, the comment letter does not provide substantial evidence supporting a fair argument that the project would result in significant unavoidable impacts requiring preparation of an EIR.

SECTION 4.0 INITIAL STUDY TEXT REVISIONS

This section contains revisions to the text of the Alviso Hotel Initial Study dated October 2021. Revised or new language is underlined. All deletions are shown with a ~~line through the text~~.

Page 40 Section 4.3.2, in Table 4.3-3, the text of the third column of the first row on the page is **REVISED** as follows:

The project site is near VTA bus lines that would support multi-modal travel to and from the site. Additionally, the project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces, consistent with City standards. ~~As noted in Section 4.17, Transportation, the project would be required to implement a TDM program which would include measures to support reduced vehicle trips.~~ The project is consistent with this measure.

Page 40 Section 4.3.2, in Table 4.3-3, the following text is **ADDED** to the third column of the second row on the page:

The project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site.

Page 83 Section 4.6.2, under Impact EN-1, the text of the first paragraph is **REVISED** as follows:

In addition, the project ~~would be required to prepare and implement a Transportation Demand Management (TDM) plan to reduce project VMT below the City threshold for residential projects. The TDM plan~~ site is located near VTA bus lines that would support multi-modal travel to and from the site. The project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces. As such, the project would incentivize the use of alternative methods of transportation to and from the site, which would reduce the project's gasoline demand.

Page 86 Section 4.7.1.2, the following text is **ADDED** to the second paragraph:

The depth to groundwater in the project area ranges from feet 14 to 15 feet below ground surface, based on the Phase I Environmental Site Assessment (ESA) report completed for the site. The Valley Water 2016 Groundwater Management Plan notes the depth to groundwater at the site is approximately 0 to 10 feet below ground surface.

Page 99 Section 4.8.2, in Table 4.8-1, the following text is **ADDED** to the second column of final row on the page:

The project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces.

Page 100 Section 4.8.2, in Table 4.8-1, the text in the third column of the second row on the page is **REVISED** as follows:

The path continues through the project site and provides ~~access~~ an on-site link to a planned connection to the Guadalupe River Trail.

Page 101 Section 4.8.2, in Table 4.8-1, the following text is **ADDED** to the second column of first row on the page:

The project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces.

Page 101 Section 4.8.2, in Table 4.8-1, the following text is **ADDED** to the second column of second row on the page:

The project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site.

Page 101 Section 4.8.2, in Table 4.8-1, the text in the second column of final row on the page is **REVISED** as follows:

~~Yes~~ Not Applicable. ~~As noted in Section 4.17, Transportation, the project would be required to implement a TDM program which would include measures to support reduced vehicle trips.~~ Policy TR-7.1 is not applicable to the project since the proposed hotel would include 20 employees and would not qualify as a "large employer", which is typically defined as including 50 or more employees.

Page 102 Section 4.8.2, in Table 4.8-1, the text in the second column of first row on the page is **REVISED** as follows:

Yes. ~~As noted in Section 4.17, Transportation, the project would be required to implement a TDM program which may include a car share program.~~ The project includes a large entrance passenger loading zone, which facilitates and promotes the use of taxis, private vehicle transport, and rideshare services for guests to access the hotel without cars requiring parking spaces. Additionally, the project is located in proximity to transit services and bicycle facilities, and includes dedicated onsite bicycle parking, thus further reducing the need for vehicle parking spaces on the site.

Page 103 Section 4.8.2, in Table 4.8-1, the text in the second column of second to last row on the page is **REVISED** as follows:

Yes. Organic waste containers will not be provided for the proposed hotel. However, the proposed project would ~~meet~~ exceed the City's construction and demolition waste diversion requirements.

Page 103 Section 4.8.2, in Table 4.8-1, the text in the second column of final row on the page is **REVISED** as follows:

Yes. ~~As noted in Section 4.17, Transportation, the project would be required to implement a TDM program which would include measures to support reduced vehicle trips.~~ The project includes dedicated onsite bicycle parking, is located in proximity to transit services and bicycle facilities, and includes onsite connections to provide access to those facilities, thus reducing project related VMT.

Page 124 Section 4.10.1.2, the following text is **ADDED** to the second paragraph:

Groundwater at the project site can range from 14 to 15 feet below ground surface (bgs), based on the Phase I Environmental Site Assessment (ESA) report completed for the site.[52] The Valley Water 2016 Groundwater Management Plan notes the depth to groundwater at the site is approximately 0 to 10 feet bgs.

Page 127 Section 4.10.2, under Impact HYD-4, the following text is **ADDED** after the second paragraph:

The project site is within the dam failure inundation zones for the Leroy Anderson Dam and the James J. Lenihan Dam. Valley Water's comprehensive dam safety program and emergency action plan ensure public safety. The dams are inspected regularly by Valley Water in the presence of representatives from the California Division of Safety of Dams and the Federal Energy Regulatory Commission. The potential for the failure of these dams to impact the site is extremely remote.

Page 164 Section 4.17.2, under Impact TRN-1, the following text is **ADDED** to the third paragraph:

The project includes an on-site link to a planned connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces.

Page 166 Section 4.17.2, under Impact TRN-3, the text of the second paragraph is **REVISED** as follows:

Upon entering the project site at the Bay Vista driveway, a two-way path is provided along the east side of Bay Vista Drive. The path continues through the project site

and provides ~~access~~ an on-site link to a planned connection to the Guadalupe River Trail.

Page 183 Section 4.21, under Impact MFS-2, the following text is **ADDED** to the second paragraph:

As described in Section 4.4 Biological Resources, the project could affect sensitive biological resources in both the short- and long-term. The project would implement a number of measures to reduce impacts on biological resources. Additionally, all projects are required to implement best management practices and comply with all federal, state, regional and local regulations described in Section 4.4. For example, other projects in the region may impact suitable habitat for the burrowing owl and Congdon's tarplant; however, the SCVHP will require implementation of conservation measures for the burrowing owl and the SCVHP land conservation plan. The SCVHP is an adopted Habitat Conservation Plan and has been developed over many years by a group of experts specifically to facilitate local conservation of covered species that are subject to decline due at least in part to land conversion actions. The SCVHP will help to ensure the conservation of the burrowing owl and its habitat throughout the project region. Many projects in the region that impact resources similar to those impacted by the proposed project will be covered activities under the SCVHP and will mitigate impacts on sensitive habitats and many special-status species through that program, which will require payment of fees for habitat restoration and conservation. Although Congdon's tarplant is not covered specifically in the SCVHP, through its land conservation plan, suitable habitat for the species may be preserved. The SCVHP calls for protection of 13,300 acres of California annual grassland and 15 acres of wetlands (perennial or seasonal), potentially suitable habitat for the Congdon's tarplant. Further, the project would implement a number of BMPs and mitigation measures to reduce impacts on sensitive habitats and to both common and special-status species, as described in Section 4.4 Biological Resources. Therefore, the project would not significantly contribute to cumulative impacts on biological resources.

Attachment A: Initial Study Comment Letters

Comment Letter A

Desiree DeiRossi

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Wednesday, November 10, 2021 4:15 PM
To: Desiree DeiRossi
Subject: FW: Public Review of Draft Mitigated Negative Declaration: Alviso Hotel Project (PD19-031)

Desiree,

Please find below Valley Water's comments.

Thank you,

Maira

From: Lisa Brancatelli <[redacted]>
Sent: Wednesday, November 10, 2021 3:48 PM
To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Cc: Colleen Haggerty <[redacted]>
Subject: RE: Public Review of Draft Mitigated Negative Declaration: Alviso Hotel Project (PD19-031)

[External Email]

Hello Ms. Blanco,

The Santa Clara Valley Water District (Valley Water) has reviewed the Notice of Intent to Adopt a Mitigated Negative Declaration (MND) for the proposed Alviso Hotel Project located south of North First Street and North of Highway 237 in the Alviso area of the City of San José (City), received by Valley Water on October 12, 2021.

Per our review of the MND, we have the following comments:

1. Section 3.2.6 Landscaping, the discussion under this section notes many new trees will be planted including sycamore and oak trees. The proposed landscaping should be revised for conformance with the Guidelines and Standards for Land Use Near Streams - Design Guide 3, as this is a more appropriate guide to use for this development where the goals are geared toward human aesthetics. The use of this Guideline and Standard is also in keeping with the City's landscape requirements to use 15-gallon trees and drought-tolerant species.

   Design Guide 3 will help ensure landscaping will be maintained in a manner consistent with the goals of protecting the local natives and replacement plants consistent with this guide are commercially available. This guide provides options for use of either non-invasive, drought-tolerant, non-native ornamental plants that will not have the potential to cross-pollinate with native riparian species or else choosing non-invasive, drought-tolerant, non-local California natives (ornamental natives) with no potential to cross-pollinate with the local native species. Plantings not in conformance with this design guide will have a negative effect on the remnant local natives of either oaks or sycamores found along the Guadalupe River.

The proposed sycamore and coast live oak trees should be deleted from the proposed landscaping. These trees are found locally along the river and what is commercially available are not propagated from local stock. Such plants typically require a custom nursery contract to collect and grow the plants with a one-year lead time and the resulting plants are smaller than 1 gallon in size. Use of commercially available sycamore and coast live oak trees at the site, as noted in Design Guide 3 would result in hybridization with the local natives located along Guadalupe River, negatively impacting the local habitat. Also, the proposed box elder trees and arroyo willows should be reconsidered as they are not typically considered to be drought-tolerant landscaping.

2. Section 4.7.1.2 and Section 4.10.1.2 Existing Conditions, Groundwater on pages 86 and 124 notes groundwater at the site can range from 14 to 15 feet below ground surface. However, Figure 2-16 on page 2-17 of the Valley Water 2016 Groundwater Management Plan notes the depth to groundwater at the site is approximately 0 to 10 feet below ground surface.
3. Section 4.10 Hydrology and Water Quality, should also note the site is subject to inundation from the Leroy Anderson Dam and the James J. Lenihan Dam on Lexington Reservoir.
4. Valley Water records indicate that there is one (1) active well within the project site and possibly one abandoned well. If currently, the active well will continue to be used following the development of the site, it must be protected so that it does not become lost or damaged during construction. If the well will not be used following the development of the site, it must be properly destroyed under a permit from Valley Water. The abandoned well if found during construction must be properly destroyed in accordance with Ordinance 90-1, which requires the issuance of a well destruction permit or be registered with Valley Water and protected during construction. It should be noted that while Valley Water has records for most wells located in the County, it is always possible that a well exists that is not in Valley Water's records. All wells found at the site must be destroyed or registered with Valley Water as noted above. For questions about the wells, please contact Valley Water's Wells and Water Measurement Unit at (408) 630-2660.
5. The discussion in various locations of the document notes an on-site trail connection to the Guadalupe Trail as part of this project; however, Valley Water is currently working with the developer on a trail connection to the Guadalupe Trail as part of the Shops at Terra Project located on the adjacent parcel. The MND should be revised to more accurately describe the project will include a connection to the proposed ramp to the Guadalupe River Trail as part of the Shops at Terra Project and at this time the ramp connection has not been permitted and constructed.

If you have any questions, you may reach me at (408) 630-2749, or by e-mail at LBrancatelli@valleywater.org. Please reference District File No. 22079 on future correspondence regarding this project.

Thank you,

LISA BRANCATELLI
ASSISTANT ENGINEER II (CIVIL)
Community Projects Review Unit
lbrancatelli@valleywater.org
Tel. (408) 630-2479 / Cell. (408) 691-1247
CPRU Hotline: (408) 630-2650

Valley Water

Clean Water • Healthy Environment • Flood Protection

5750 Almaden Expressway, San Jose CA 95118
www.valleywater.org

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Tuesday, October 12, 2021 4:24 PM
Subject: Public Review of Draft Mitigated Negative Declaration: Alviso Hotel Project (PD19-031)

PUBLIC NOTICE
INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
CITY OF SAN JOSE, CALIFORNIA

Project Name: Alviso Hotel Project
File No.: PD19-031

Description: Planned Development (PD) Permit to allow the construction of an approximately 112,463-square foot, 214-room hotel in a five-story building. The northeast and northwest sections of the site would include surface parking with 21 parking spaces, and a four-story parking garage with 213 spaces, for a total of 234 parking spaces.

Location: The project is located at an undeveloped approximately 6.23-acre lot located south of North First Street and north of Highway 237 in the Alviso area of San José.

Assessor's Parcel Nos.: 015-48-006 **Council District:** 4

Applicant Contact Information: Trang Tu-Nguyen, TNT Dev Services Inc., for the Shops@Terra, LLC., 1566 Davis Street, San Jose, CA 95126, (408)-857-4731.

The City has performed an environmental review of the project. The environmental review examines the nature and extent of any adverse effects on the environment that could occur if the project is approved and implemented. Based on the review, the City has prepared a Draft Mitigated Negative Declaration (MND) for this project. An MND is a statement by the City that the project will not have a significant effect on the environment because the project will include mitigation measures that will reduce identified project impacts to a less than significant level. The project site is listed on a hazardous waste site or list pursuant to Section 65962.5 of the California Government Code.

The public is welcome to review and comment on the Draft MND. The public comment period for this Draft MND begins on **October 12, 2021 and ends on November 10, 2021.**

The Draft MND, Initial Study, and reference documents are available online at:
www.sanjoseca.gov/negativedeclarations.
A hard copy of the of IS/MND is available for viewing at the Dr. Martin Luther King Jr. Library located at 150 E. San Fernando Street, San Jose, CA 95112 or by appointment at the San José City Hall Permit Center located at 200 E Santa Clara St, San Jose, CA 95113. Should you wish to review a hard copy, please contact by email at Maira.Blanco@sanjoseca.gov.

For additional information, please contact Maira Blanco at (408) 535-7837 or my email at Maira.Blanco@sanjoseca.gov.

Thank you,

Maira

Desiree DeiRossi

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Wednesday, November 10, 2021 4:17 PM
To: Desiree DeiRossi
Subject: FW: Comment re: Alviso Hotel Project MND (File No. PD19-031)
Attachments: 2021.11.10 LIUNA Comment_MND_Alviso Hotel Project (File No. PD19-031).pdf

Another comment on the Alviso Hotel draft

From: Brian Flynn <[redacted]>
Sent: Wednesday, November 10, 2021 2:22 PM
To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Subject: Comment re: Alviso Hotel Project MND (File No. PD19-031)

Dear Ms. Blanco,

Please find attached a comment letter submitted on behalf of Laborers International Union of North America, Local Union 270 ("LIUNA") regarding the mitigated negative declaration for the Alviso Hotel Project (File No. PD19-031).

Confirmation of receipt of this email and comment would be greatly appreciated.

Thank you,
Brian B. Flynn
Lozeau | Drury LLP
[redacted]

LOZEAU DRURY LLP

[redacted]

VIA EMAIL

November 10, 2021

Maira Blanco, Planner II
Department of Planning, Building & Code Enforcement
City of San José
200 East Santa Clara Street, 3rd Floor
San José, CA 95113
Maira.Blanco@sanjoseca.gov

Re: Alviso Hotel Project (File No. PD19-031)
LIUNA Comment- Mitigated Negative Declaration

Dear Ms. Blanco and Department of Planning, Building & Code Enforcement,

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members ("LIUNA") living in and around the City of San Jose ("City") to comment on the Initial Study and Mitigated Negative Declaration ("MND") prepared for the Alviso Hotel Project ("Project") (Project File No. PD19-031).

LIUNA's review of the MND was assisted by expert wildlife biologist Dr. Shawn Smallwood, Ph.D., indoor air quality expert Francis Offermann, PE, CIH, and air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of the Soil/Water/Air Protection Enterprise ("SWAPE"). The written comments of Dr. Smallwood, Mr. Offermann, and SWAPE are attached hereto as Exhibit A, Exhibit B, and Exhibit C, respectively. Based on their review, it appears that several of the MND's conclusions are not supported by substantial evidence and, moreover, there is a "fair argument" that the Project may have unmitigated adverse environmental impacts. As required by CEQA, LIUNA requests that the City prepare an environmental impact report ("EIR") rather than an MND prior to approving the Project.

PROJECT DESCRIPTION

The project proposes the construction of a hotel on an undeveloped 6.23-acre site (APN 015-48-006) located south of North First Street and north of Highway 237. The site is bound by the Guadalupe River to the south, State-owned open space to the east, and privately-owned parcels to the north and west. The proposed 5-story hotel would be 112,463-square feet with 214 rooms. The northeast and northwest sections of the site would include surface parking with 21 parking spaces, and a four-story parking garage with 213 spaces, for a total of 234 parking spaces. The proposed five-story building would reach a maximum height of 65 feet including

architectural elements, mechanical equipment screens, and elevator shafts. The four-story parking garage would reach a maximum height of 40 feet.

LEGAL STANDARD FOR NEGATIVE DECLARATIONS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319-20.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ["PRC"] § 21068; see also 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109.)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield (*2004) 124 Cal.App.4th 1184, 1214 (*Bakersfield Citizens*); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens, supra*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also *Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration unless there is a "fair argument" that the project will have a significant environmental effect. (PRC, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.) A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and . . . there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (*Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331 [quoting PRC §§ 21064.5, 21080(c)(2)].) In that context, "may" means a reasonable

possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors, supra*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors*, *supra*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zischke*, Practice Under CEQA*, §6.29, pp. 273-74.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a preference for resolving doubts in favor of environmental review." (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

DISCUSSION

I. An EIR Is Required to Disclose and Mitigate the Project's Impacts to Biological Resources.

Expert wildlife biologist Dr. Shawn Smallwood, Ph.D., found several deficiencies in the MND's analysis of the Project's impacts on wildlife species. Dr. Smallwood's comment and CV are attached as Exhibit A. As discussed below, Dr. Smallwood concluded: (1) the MND's biological report underestimated the diversity of species and the Project's likely impacts to those species; (2) the MND's biological report failed to provide substantial evidence of the Project's impacts; (3) the MND failed to assess or mitigate the Project's impacts to species from habitat

fragmentation, movement restriction, road mortality, and window collisions; and (4) the MND's mitigation measures were inadequate to reduce the Project's impacts to biological resources.

A. The MND underestimated the diversity of species using the Project site.

Dr. Smallwood performed an approximately two-hour site visit to the Project site on October30, 2021. (Ex. A, p. 1.) Dr. Smallwood detected "detected 34 species of vertebrate wildlife, including at least 8 special-status species" such as the California brown pelican, double-crested cormorant, and red-tailed hawk. (*Id*. at pp. 3, 8.) The Biological Resources Assessment prepared for the MND by WRA Environmental Consultants ("WRA Report") identified less than a third of the species identified by Dr. Smallwood. (*Id*. at p. 12; WRA Report, Appx. B, p. B-4 [identifying ten wildlife species observed in Project area].) Twenty-four of the species detected by Dr. Smallwood had not been identified in the WRA report. (Ex. A, p. 3.) For example, Dr. Smallwood took photographs of California brown pelicans and white-tailed kites:

Both species are fully protected under California law (*Id*. at p. 8.) This failure of the WRA Report to detect special-status species and an abundance of other wildlife at the Project site underscores the inadequacy of the MND's analysis and the need for an EIR. (*Id.* at p. 12.)

Although Dr. Smallwood's site visit lasted only 2 hours, Dr. Smallwood calculated that more thorough site visits would reveal an even greater diversity of wildlife. (Ex. A, p. 9.) Given more time to survey the site, Dr. Smallwood's predicts that he would have observed an additional 20 species (54 species total) compared to the 34 species observed on October 30. (*Id.* at pp. 9-10.) Based on his review of the MND and his site visit, Dr. Smallwood concluded, "the wildlife community of the project site is incompletely and inaccurately characterized in the IS/MND . . . [and] the biological resources survey provided an unacceptably poor basis for an analysis of potential project impacts to wildlife." (*Id*. at p. 12.)

B. The MND relied on an inadequate biological report.

In addition to the WRA Report failing to adequately disclose the diversity of species that would be impacted by the Project, Dr. Smallwood's review also found numerous other deficiencies in the WRA Report. (Ex. A, pp. 11-17.)

First, Dr. Smallwood found that the WRA Report provided an inaccurate description of the Project site. (Ex. A, p. 11.) According to the WRA Report, 48% of the site is "developed." That is not so. It is true that a portion of the site has been graded, however, as Dr. Smallwood explains, "[g]raded land without impervious surface can support vegetation and wildlife, and it does so at this project site." (Ex. A, pp. 11-12.)

Second, the WRA Report "neglected to report the most basic information needed to assess the rigor of the biological survey." (Ex. A, p. 12.) There was no indication in the WRA Report as to who performed the survey, what qualifications the surveyors had, what time of day the survey took place and for how long, and what methods were used to survey the Project site. (*Id*.) Such information may have provided some insight into why the WRA Report found less than a third of the species on the Project site as Dr. Smallwood and less than a quarter of the species found in a survey conducted for the adjacent Topgolf facility. However, without such details, the MND fails to provide substantial evidence in support of its conclusions about impacts to biological resources. As Dr. Smallwood concluded, "It is not credible to have detected no special-status species of birds, whereas [the Topgolf survey] and I detected 13 special-status bird species on the site and another special-status species of bird just north of the site." (*Id*.)

Third, the WRA Report's review of available literature and databases were "much too cursory to support an analysis of potential project impacts." (Ex. A, p. 12.) The WRA Report relied on one database, the California Natural Diversity Data Base ("CNNBD"), to conclude that only 42 special-status of wildlife had been recorded in the vicinity of the Project site. However, Dr. Smallwood explains that CNNBD "is not the only resource available, nor is it the best resource for certain taxa such as birds." (*Id*.) By including additional databases in the review, such as eBird and iNaturalist, Dr. Smallwood found that 87 special-status species (as opposed to the 42 species in the WRA Report) were known to occur in the area. (*Id*. at pp. 12-13.) By relying on cursory review of one database, the MND "has left the characterization of the project site's wildlife community incomplete and inaccurate." (*Id*. at p. 13.)

Fourth, the WRA Report's surveys and database review were improperly used to support the MND's conclusions. (Ex. A, p. 13.) The WRA Report expressly noted that its survey was "not intended to determine the actual presence or absence of a species." (WRA Report, p. 8.) Despite that disclaimer, the MND used the results of the WRA survey to conclude that species were absent from the Project site. (See, e.g., MND, p. 68 ["no tricolored blackbirds were observed . . . during the site survey . . . , and the species is determined to be absent."].) Similarly, the WRA Report used CNNDB data to determine whether a species was absent from the Project site even though CNNDB "is inappropriate for determining absence." (Ex. A, p. 13.)

By misappropriating data in this way, the MND fails to provide substantial evidence for its conclusions regarding the Project's impacts on biological resources.

C. The MND failed to disclose and mitigate the Project's impacts on habitat loss, wildlife movement, road mortality, and window collisions.

Dr. Smallwood found that the MND failed to discuss numerous significant impacts that the Project may have on biological resources, including habitat loss, wildlife movement, road mortality, and window collisions. (Ex. A, pp. 17-25.) Dr. Smallwood's analysis constitutes a fair argument that the Project may have significant unmitigated impacts and, as such, an EIR is required prior to approval of the Project.

1. Habitat loss and fragmentation.

The MND does not analyze and disclose the impact to wildlife due to habitat loss. As Dr. Smallwood explains, "Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity." (Ex. A, p. 18.) Dr. Smallwood calculated that the Project would result in a birth-reduction of 70,660 birds over the next century due to the loss of terrestrial habitat. (*Id.* at p. 18.) He concluded that this impact "would be substantial, and would qualify as significant impacts that have yet to be addressed by the IS/MND." (*Id*.) However, the MND failed to address or analyze this potentially significant impact. (*Id*.) An EIR is necessary to ensure the impact to wildlife from habitat loss is mitigated to the fullest extent.

2. Wildlife Movement

The MND's analysis of the Project's impacts to wildlife movement is flawed. Although the MND acknowledges that "[t]he project site is in the vicinity of known avian breeding and migratory habitat," the MND then only discusses building design standards related to bird-window collisions with no further discussion of wildlife movement. (MND, p. 63.) A proper analysis of the Project's impacts on wildlife movement is crucial because "the project site is located right where the western and eastern shores of the San Francisco Bay funnel shore-hugging migratory birds toward their passage through the Santa Clara Valley." (Ex. A, p. 20.) More than a million birds pass through greater San Jose each year, which are protected under various federal and state laws. (*Id*.) Dr. Smallwood recommends that a more thorough analysis of the Project's impacts to wildlife movement be included in an EIR. (*Id*.)

3. Road Mortality.

The impacts to wildlife from collision with traffic generated by the Project was not addressed in the MND. According to the MND, the Project would result in 599,330 vehicle miles traveled annually and 1,642 daily trips. (Ex. A, p. 20.) Dr. Smallwood estimates that collisions with vehicles as a result of the Project would kill between 4,926 and 8,2010 animals annually (over 246,300-410,500 animals over 50 years of Project operation). (*Id.* at p. 23.) Especially due

to the special-status species likely to occur at or near the Project, these collisions represent a significant impact to wildlife that has not been addressed, discussed, or mitigated in the MND. Dr. Smallwood's calculations constitute a fair argument that an EIR is necessary to address and mitigate this impact.

4. Window Collisions.

The relationship of the Project's structures to the adjacent Topgolf creates intensifies the Prjoect's likely impacts to bird species from window collisions. Topgolf is required to place glow-in-the-dark markers along the net surrounding the driving range. As Dr. Smallwood notes, the proposed hotel's windows would be located only 23 meters from the Topgolf net, creating a visual interaction between the net and windows which increases collision risks for birds. (Ex. A, p. 24.) Reviewing the renderings for the Project, Dr. Smallwood noted "its liberal use of structural glass on its facades," which "would introduce substantial collision hazards to an aerosphere that currently provides critically important habitat to birds, and which would act as lethal traps to flying birds." (*Id*.)

The impacts from window collisions are important because such collisions "are often characterized as either the second or third largest source or human-caused bird mortality." (Ex. A, p. 24.) Dr. Smallwood calculated that the glass facades of the hotel would result in 195 bird deaths per year. (Ex. A, p. 26.)

Even though the MND acknowledged that there may be an impact from window collisions, its analysis of the impact was inadequate. (See Ex. A, pp. 31-33.) For example, the WRA Report claimed that green walls on the parking garage would attract birds for foraging, a claim that Dr. Smallwood describes as "silly." (Ex. A, p. 33.) The WRA Report also claimed that window collisions would be reduced because the windows would have curtains or blinds. (Ex. A, p. 32.) However, the Report ignores the fact that there would be no requirement for hotel guests to draw their blinds or curtains at any point.

Notably, Dr. Smallwood concluded that "the location of the project within a known wildlife movement corridor, the large extent of its windows, the IS/MND's renderings of the windows as reflective on the upper floors and transparent on the bottom floor, the shape of the building that would funnel flying birds towards windows, and its location close to a 170-foot-tall net ***all point toward a high bird-window collision rate and a significant impact***." (Ex. A, p. 33.) Dr. Smallwood suggests a number of mitigation measures that would reduce the impact from window collisions. (Ex. A, pp. 30-31.) This impact and mitigation measures should be further considered in an EIR.

5. Cumulative Impacts.

Dr. Smallwood found the MND's discussion of cumulative impacts to wildlife to be inadequate. (Ex. A, p. 34.) The MND falsely assumes that cumulative impacts would be less than significant because the Project's impacts are less than significant. However, that is not the

standard under CEQA. Under CEQA, individually insignificant impacts can nevertheless be cumulatively considerable. The MND fails to provide "an appropriate, serious analysis of cumulative impacts." (Ex. A, p. 34.) Thus, the MND's conclusion that the cumulative impacts would be less than significant is unfounded and should be revised.

D. The MND's proposed mitigation measures are inadequate.

Dr. Smallwood critiqued the MND's proposed mitigation measures as being inadequate to reduce the Project's impacts to biological resources. (Ex. A, pp. 34-36.) Both MM BIO-1.2 and MM BIO-1.3 improperly rely on preconstruction surveys rather than detection surveys to protect special-status species. As Dr. Smallwood explains,

> Detection surveys were designed by species experts, often undergoing considerable deliberation and review before adoption. Detection surveys often require repeated efforts using methods known to maximize likelihoods of detection. Detection surveys are needed to assess impacts and to inform the formulation of appropriate mitigation measures, because preconstruction surveys are not intended for these roles either.

(Ex. A, p. 34.) In contrast, preconstruction surveys "are only intended as last-minute, one-time salvage and rescue operations targeting readily detectable nests or individuals before they are crushed under heavy construction machinery." (*Id*.) Instead of relying only on preconstruction surveys, an EIR should be prepared requiring detection surveys to be performed followed by preconstruction surveys. (*Id*.) Furthermore, the EIR should require that how the results of such surveys would be reported to avoid "serving as an empty gesture rather than a mitigation measure." (*Id*.)

MM BIO-4.1 claims that requiring treated windows for the south-facing aspect of the hotel would mitigate window collision impacts for birds. However, as Dr. Smallwood notes, this mitigation measure ignores the fact that "[t]he north aspect is where the greatest extent of windows would occur, and it is where the building would curve around northward to funnel bird traffic into windows, and it is where the TopGolf net would channel birds through a narrow gap between the unmarked net and the hotel's windows." (Ex. A, p. 35.) As such, MM BIO-4.1 is inadequate to mitigate window collision impacts.

II. An EIR is required to disclose and the Project's significant indoor air quality impacts from emissions of formaldehyde.

The MND fails to address the significant health risks posed by the Project from formaldehyde, a toxic air contaminant ("TAC"). Certified Industrial Hygienist, Francis Offermann, PE, CIH, has conducted a review of the Project, the MND, and relevant documents regarding the Project's indoor air emissions. Mr. Offermann is one of the world's leading experts on indoor air quality, in particular emissions of formaldehyde, and has published extensively on the topic. As discussed below and set forth in Mr. Offermann's comments, the Project's

emissions of formaldehyde to air will result in very significant cancer risks to future residents at the Project's apartments. Mr. Offermann's expert opinion and calculation present a "fair argument" that the Project may have significant health risk impacts as a result of these indoor air pollution emissions, which were not discussed, disclosed, or analyzed in the MND. These impacts must be addressed in an EIR. Mr. Offermann's comment and CV are attached as Exhibit B.

Formaldehyde is a known human carcinogen and listed by the State as a TAC. BAAQMD has established a significance threshold of health risks for carcinogenic TACs of 10 in a million and a cumulative health risk threshold of 100 in a million. The MND fails to acknowledge the significant indoor air emissions that will result from the Project. Specifically, there is no discussion of impacts or health risks, no analysis, and no identification of mitigations for significant emissions of formaldehyde to air from the Project.

Mr. Offermann explains that many composite wood products typically used building construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential, office, and retail building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. B, pp. 2-3.)

Mr. Offermann states that future employees of the Alviso Hotel will be exposed to a cancer risk from formaldehyde of approximately 17.7 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (Ex. A, p. 3.) This exceeds BAAQMD's CEQA significance thresholds for airborne cancer risk of 10 per million. (*Id*.) Mr. Offermann concludes that these significant environmental impacts must be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (Ex. A, pp. 5, 11-13.) He prescribes a methodology for estimating the Project's formaldehyde emissions in order to do a more project-specific health risk assessment. (*Id*., pp. 6-9.). Mr. Offermann also suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. (*Id*., pp. 11-13.) Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. (*Id*.) Since the MND does not analyze this impact at all, none of these or other mitigation measures have been considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes substantial evidence that the project will have a significant adverse environmental impact. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. (See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 [County applies Air District's "published CEQA quantitative criteria" and "threshold level of cumulative significance"]; see also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ["A 'threshold of significance' for a given environmental effect is

simply that level at which the lead agency finds the effects of the project to be significant"].) The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ["As the District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact."].) Since expert evidence demonstrates that the Project will exceed the BAAQMD's CEQA significance threshold, there is substantial evidence that an "unstudied, *potentially significant environmental effect[]*" exists. (See *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 958 [emphasis added].) As a result, the City must prepare an EIR for the Project to address this impact and identify enforceable mitigation measures.

The failure of the MND to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*"). In that case, the Supreme Court expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project *must be addressed* under CEQA. At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, 62 Cal.4th at 800-01.) However, to the extent a project may exacerbate existing environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id*. at 801.) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on *a project's users or residents* that arise *from the project's effects* on the environment." (*Id*. at 800 [emphasis added].)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. People will be residing in and using the Project once it is built and begins emitting formaldehyde. Once built, the Project will begin to emit formaldehyde at levels that pose significant direct and cumulative health risks. The Supreme Court in *CBIA* expressly finds that this type of air emission and health impact by the project on the environment and a "project's users and residents" must be addressed in the CEQA process. The existing TAC sources near the Project site would have to be considered in evaluating the cumulative effect on future residents of both the Project's TAC emissions as well as those existing off-site emissions.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings,* either directly or indirectly.'" (*CBIA*, 62 Cal.4th at 800 [emphasis in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public

health and safety are of great importance in the statutory scheme." (*Id*., citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the thousands of future residents at the Project are human beings and the health and safety of those residents must be subjected to CEQA's safeguards.

The City has a duty to investigate issues relating to a project's potential environmental impacts. (*See County Sanitation Dist. No. 2 v. County of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) The proposed office buildings will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose future residents to cancer risks potentially in excess of BAAQMD's threshold of significance for cancer health risks of 10 in a million. Likewise, when combined with the risks posed by the nearby TAC sources, the health risks inside the project may exceed BAAQMD's cumulative health risk threshold of 100 cancers in a million. Currently, outside of Mr. Offermann's comments, the City does not have any idea what risks will be posed by formaldehyde emissions from the Project or the residences. As a result, the City must include an analysis and discussion in an EIR which discloses and analyzes the health risks that the Project's formaldehyde emissions may have on future residents and identifies appropriate mitigation measures.

III. An EIR is Required to Disclose and Mitigate the Project's Significant Air Quality Impacts from Emissions of Diesel Particulate Matter.

Matt Hagemann, P.G., C.Hg., and Dr. Paul E. Rosenfeld, Ph.D., of the environmental consulting firm SWAPE reviewed the MND's analysis of the Project's impacts on air quality. SWAPE's comment letter and CVs are attached as Exhibit C. As discussed below, SWAPE concluded that the MND failed to identify a significant impact from emissions of diesel particulate matter. As such, an EIR is required to disclose and mitigate this impact.

A. The MND failed to analyze the Project's operational and cumulative air quality impacts on human health from emissions of diesel particulate matter.

The MND's analysis of the cancer risk posed by emissions of diesel particulate matter was inadequate. Although the MND provided a quantitative analysis for emissions during construction of the Project (MND, p. 47), there was no quantitative analysis of the emissions resulting from *operation* of the Project. Instead, the MND relied on a qualitative analysis to conclude that "[p]roject traffic was not considered a source of substantial TACs [toxic air contaminants] or $PM_{2.5}$." (MND, p. 44.) The MND's failure to conduct a quantified health risk assessment ("HRA") for the Project's operational emissions resulted in an inadequate evaluation of the Project's impacts and calls into question the MND's less-than-significant conclusion.

As noted by SWAPE, CEQA requires that that MND "correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. (Ex. C, p. 12.) However, such an analysis is not possible without a quantified HRA.

Furthermore, the failure of the MND to provide a quantified HRA is inconsistent with the most recent guidance of the Office of Environmental Health Hazard Assessment ("OEHHA"). (Ex. C, p. 12.) OEHHA recommends that exposure from projects lasting more than 6 months (e.g. the Project's future years of operation) be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR"). (*Id*.) OEHHA additionally recommends that agencies evaluate the cumulative impact of construction and operation of the Project combined. (*Id.* at p. 13.) Thus, a quantified HRA is necessary to ensure that operational and cumulative health risks are disclosed, compared to the applicable BAAQMD significance thresholds, and properly mitigated.

B. SWAPE's analysis presents a fair argument that the Project will result in a potentially significant in a potentially significant impact to human health from emissions of diesel particulate matter.

SWAPE prepared a screening-level HRA to evaluate potential impacts to human health from diesel particulate matter emissions ("DPM") during operation of the Project. (Ex. C, pp. 14-16.) SWAPE used AERSCREEN, the leading screening-level air quality dispersion model. (*Id*. at p. 14.) SWAPE used a sensitive receptor distance of 300 meters (i.e. the single family residences located near the Project site) and analyzed impacts to individuals at different stages of life based on OEHHA guidance. (*Id*. at pp. 15-16.)

SWAPE found that cumulative risks of construction and operation of the Project combined resulted in an excess cancer risk of approximately 12.2 in one million over the course of a residential lifetime (i.e. 30 years). (Ex. C, p. 16.) As SWAPE concluded, "the lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND." (Ex. C, p. 16.)

SWAPE's expert analysis of the Project's significant cancer risks established a fair argument that the Project may result in significant impacts. Under CEQA, SWAPE's fair argument requires that the City prepare an EIR to disclose and mitigate this impact.

IV. The MND's Analysis of the Project's Air Quality Impacts Is Not Supported by Substantial Evidence.

SWAPE found that the MND underestimated the Project's emissions and therefore cannot be relied upon to determine the significant of the Project's air quality impacts. (Ex. C, p. 2.) The MND relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). (*Id*. at p. 1.) This model, which is used to generate a project's construction and operational emissions, relies on recommended default values based on site specific information related to a number of factors (*Id.*, pp. 1-2.) CEQA requires that any changes to the default values must be justified by substantial evidence. (*Id*. at p. 1.)

SWAPE reviewed the Project's CalEEMod output files and found that the values input

into the model were inconsistent with information provided in the MND. (Ex. C, p. 2.) This results in an underestimation of the Project's emissions. (*Id*.) As a result, an EIR should be prepared that adequately evaluates the Project's air quality impacts. (*Id.*)

Specifically, SWAPE found that the following values used in the MND's air quality analysis were either inconsistent with information provided in the MND or otherwise unjustified:

1. Underestimated Land Use Size (Ex. C, p. 2.)
2. Unsubstantiated Changes to Construction Phase Lengths (Ex. C, pp. 2-4.)
3. Underestimated Amount of Material Import (Ex. C, pp. 4-5.)
4. Unsubstantiated Changes to Off-Road Construction Units/Hours (Ex. C, pp. 5-6.)
5. Underestimated Hauling Trip Number (Ex. C, pp. 6-7.)
6. Unsubstantiated Change to Wastewater Treatment Percentages (Ex. C, pp. 7-8.)
7. Incorrect Application of Tier 3 Mitigation (Ex. C, pp. 8-10.)
8. Improper Application of Energy-Related Mitigation Measures (Ex. C, pp. 10-11.)

As a result of these errors, the MND underestimates the Project's construction and operational emissions and cannot be relied upon to determine the significance of the Project's air quality impacts.

V. The MND's Analysis of the Project's Greenhouse Gas Impacts is Not Supported by Substantial Evidence.

The MND uses the City's 2030 Greenhouse Gas Reduction Strategy ("GHGRS") to analyze the Project's impacts related to greenhouse gases ("GHGs"). As the MND explained,

> The 2030 GHGRS identifies required General Plan policies and strategies to be implemented by development projects in the areas of green building/energy use, multimodal transportation, water conservation, and solid waste reduction. Compliance with these mandatory policies and strategies and any voluntary measures proposed by the project ensure a project's consistency with the GHG Reduction Strategy.

(MND, p. 98.) The MND compared the Project to the GHGRS using a "Consistency Checklist" and concluded that the Project was consistent with all applicable policies/strategies and, therefore, that the Project's GHG impacts would be less than significant. (MND, pp. 98-104.) However, a closer look at the Consistency Checklist reveals that several consistency determinations are unfounded or otherwise unjustified. (See Ex. C, pp. 17-23.)

For example, MS-2.7 requires that the Project "[e]ncourage the installation of solar panles or other clean energy power generation sources ***over parking areas***." (MND, p. 99 [emphasis added].) The MND states that "[t]he project would not include solar panels over the parking garage" yet then concludes that the Project is nevertheless consistent with MS-2.7. (*Id*.) Without solar panels over the Project's parking garage, the Project is not consistent with MS-2.7.

The MND applies the same faulty logic to MS-2.2 which requires the Project to "[e]ncourage maximized use of on-site generation of renewable energy for all new and existing buildings." (*Id*.) The MND concludes that the Project is consistent with MS-2.2 yet makes no mention of the fat that solar panels are not required over the parking garage. (*Id*.) The MND claims that Project is consistent with MS-2.2 because "[t]he project applicant is committed to the project being compliant with all mandatory applicable state and local green building and energy codes." (*Id*.) Again, there is no basis for concluding that the Project is consistent with MS-2.2 when solar panels are not required over the garage and where compliance is assumed based on the applicant doing the bare minimum by complying with state and local regulation. (See Ex. C, pp. 17-18.)

The MND also concludes that the Project will be consistent with several measures on the Consistency Checklist based on speculative performance of non-mandatory measures by the applicant in the future. For example, MS-16.2 requires that the Project "[p]romote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances." (MND, p. 99.) The MND concludes the Project is consistent because the applicant is "committed . . . towards supporting neighborhood-based distributed clean/ renewable energy generation ***when it becomes available in the area***." (*Id*. [emphasis added].) In other words, the MND is concluding the Project is consistent based on something that it admits does not exist yet. (Ex. C, pp.18-19.) \

Similarly, the MND concludes the Project is consistent with TR-7.1 and TR-8.5, which are related to traffic and parking, because the project would develop a transportation demand management ("TDM") plan in the future. (MND, pp. 101-02.) However, as noted by SWAPE, the MND makes no mention of requiring a TDM plan or what the elements of such a plan would be. (Ex. C, pp. 20-21.) Without knowing the details of these purported future events, the MND lacked any basis for concluding the Project was consistent with the GHGRS.

In addition to the above examples, SWAPE has outlined each alleged defect with the GHGRS Checklist in their comment letter. (Ex. C, pp. 17-23.) SWAPE's overall conclusion was that "the IS/MND fails to provide sufficient information and analysis to determine Project consistency with all of the measures required by the GHGRS." (*Id*. at p. 23.) Without more information, the MND's conclusion that the Project is consistent with the GHGRS and, therefore, that the Project's GHG impacts are less than significant is not supported by substantial evidence.

CONCLUSION

LIUNA's experts have established a fair argument that the Project may have significant impacts on biological resources and air quality. Furthermore, the MND's analyses of impacts to biological resources, air quality, and greenhouse gases are not supported by substantial evidence. Therefore, LIUNA respectfully requests that the City prepare and circulate an EIR for the Alviso Hotel Project prior to approval of the Project.

Sincerely,

Brian B. Flynn
Lozeau Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Stephanie Hansen, Principal Planner
County of Santa Cruz Planning Department
701 Ocean Street, Fourth Floor
Santa Cruz California 95060 6 November 2021

RE: Alviso Hotel Project

Dear Ms. Hansen,

I write to comment on the draft Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Alviso Hotel Project south of North First Street and north of Highway 237 in the Alviso area of San José (City of San José 2021). I understand this project would add 112,463 square feet of floor space in a 5-story hotel building and a 4-story parking garage on 6.23 acres. Unfortunately, the analysis of baseline conditions is incomplete and flawed, and the impacts analysis neglects potential impacts to wildlife that are both substantial and significant, including from glass windows and traffic.

My qualifications for assessing habitat and identifying potential impacts to wildlife are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, interactions between wildlife and human infrastructure and activities, and conservation of rare and endangered species. I authored numerous papers on wildlife conservation. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as Biological Conservation, and I was on the Editorial Board of Environmental Management. I have surveyed for wildlife in California for 36 years. My CV is attached.

SITE VISIT

I visited the site of the proposed project for 115 minutes starting at 07:26 hours on 30 October 2021. Using binoculars, I scanned for wildlife from the Guadalupe River Trail. Conditions were overcast with coastal fog and mild temperature with no wind. My survey happened to coincide with the Dia de Los Muertos Run-walk, the 500 participants of which likely suppressed the number of wildlife species I could detect. The site was covered by annual grasses, salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*) and pickleweed (*Salicornia pacifica*) with a few coyote bush (*Baccharis pilularis*), other shrubs and a palm. On the north side of the project site was a brightly lit building with a 170-foot tall, unmarked net, and on the south side was a homeless encampment (Photos 1 and 2).

Photos 1 and 2. *Views of the project site looking northeast (top) and east (bottom), 30 October 2021.* The net on the north side of the project site belongs to the Topgolf facility that was recently built.

I saw multiple species of birds, including special-status species, on the project site and flying through the airspace over and next to the project site. Just north of the site I saw a flock of about 200 California brown pelicans (Photo 3), and many Canada geese flew over and near the site (Photo 4). Double-crested cormorants flew over the site (Photo 5), as did California gulls and herring gulls (Photos 6 and 7). A white-tailed kite hunted right next to the site (Photos 8 and 9). Greater yellowlegs and black phoebe foraged on the site (Photos 10 and 11), as did hundreds of white-crowned sparrows, golden-crowned sparrows, Lincoln's sparrows, and savannah sparrows (Photo 12). I also saw black-tailed jackrabbit on the site (Photo 13) as well as feral house cats (Photo 14). Altogether, I detected 34 species of vertebrate wildlife, including at least 8 special-status species (9 if the blackbirds were tricolored blackbirds or yellow-headed blackbirds) (Table 1).

Photo 3. *Twenty-one of about 200 California brown pelicans just north of the project site, 30 October 2021.*

Photo 4. *One of multiple flocks of Canada goose that flew over or by the project site on 30 October 2021.*

Photo 5. *One of multiple flocks of double-crested cormorants that flew over or by the project site on 30 October 2021.*

Photos 6 and 7. *One of multiple California gulls (left) and herring gulls (right) that flew over or by the project site on 30 October 2021.*

Photos 8 and 9. *White-tailed kite foraging next to the project site on 30 October 2021.*

Photos 10 and 11. *Greater yellowlegs (left) and black phoebe (right) on the project site, 30 October 2021.*

Photo 12. *Fifty-six sparrows composed of white-crowned sparrow, golden-crowned sparrow and savannah sparrow, and 1 lesser goldfinch, 30 October 2021.*

Photos 13 and 14. *Black-tailed jackrabbit (left) and feral house cat (right) on the project site, 30 October 2021.*

In addition to my site visit, I reviewed an Initial Study/Mitigated Negative Declaration that had been prepared for a Topgolf facility and hotel on the same property as the Aviso Hotel Project (Harvey & Associates 2016). Harvey & Associates performed biological surveys of the site on 29 June and 9 December 2015. Methodological details were not reported, and results were vaguely reported. As far as I could discern, Table 2 includes an additional 23 species of vertebrate wildlife that I did not detect on 30 October 2021. Between the Harvey & Associates surveys and my survey, at least 67 species of vertebrate wildlife were detected at the site, including at least 12 special-status species.

My detections of 34 species of vertebrate wildlife should be interpreted within the context of my survey effort. As the additional species detections from the Harvey & Associates' surveys confirm, the results of one reconnaissance-level survey qualify as thin empirical foundation for characterizing the environmental setting of a proposed project site. Such surveys better serve as starting points toward characterization of a site's wildlife community. With only so many species detectable in the short time I had to perform visual-scan surveys on 30 October 2021, I would have been remiss to have reported that only 34 species of wildlife occur in the area. However, when surveys are diligently performed, and when outcomes are analyzed appropriately and fully reported, the number of species detected within the survey effort can inform of the number of species likely to be detected with a larger survey effort during the same time of year. This potential is of critical importance when making determinations about occurrence likelihoods of special-status species, which I will discuss further below.

Table 1. *Species of vertebrate wildlife I detected at the project site, 30 October 2021.*

Common name	**Species name**	**Status**[1]	**Note**
House cat	*Felis catus*	Non-native	I counted 5
California ground squirrel	*Otospermophilus beecheyi*		On site
Black-tailed jackrabbit	*Lepus californicus*		Visible early morning
Canada goose	*Branta canadensis*		Multiple flocks
Mallard	*Anas platyrhynchos*		Pairs and flocks
American coot	*Fulica americana*		On Guadalupe River
California brown pelican	*Pelicanus occidentalis californicus*	CFP	200 just north
Double-crested cormorant	*Phalacrocorax auritus*	WL	Multiple flocks
Great egret	*Ardea alba*		Flyover
Snowy Egret	*Egretta thula*		Flyby
Turkey vulture	*Cathartes aura*	BOP	Flyover
Red-tailed hawk	*Buteo jamaicensis*	BOP	Perched nearby
White-tailed kite	*Elanus leucurus*	CFP, BOP	Hunted adjacent to site
Mourning dove	*Zenaida macroura*		Multiple fly-throughs
Rock pigeon	*Columba livia*	Non-native	1 flew over
Anna's hummingbird	*Calypte anna*		Harassing sparrows
Greater yellowlegs	*Tringa melanoleuca*		On pond
Herring gull	*Larus argentatus*		Flyover
California gull	*Larus californicus*	BCC, WL	Flyover
Western gull	*Larus occidentalis*	BCC	Flyover
Black phoebe	*Sayornis nigricans*		Hunted site
European starling	*Sturnus vulgaris*	Non-native	Flock flew over
Common raven	*Corvus corax*		Flyovers and stop-overs
American crow	*Corvus brachyrhynchos*		Flyovers and stop-overs
Yellow-rumped warbler	*Dendroica coronata*		On site
California towhee	*Pipilo crissalis*		On site
Golden-crowned sparrow	*Zonotrichia atricapilla*		On site
White-crowned sparrow	*Zonotrichia leucophrys*		On site
Lincoln's sparrow	*Melospiza lincolni*		On site
Bryant's savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3	On site
Great-tailed grackle	*Quiscalus mexicanus*		Flyover
Blackbirds	*Agelaius sp.*		Flyover
Lesser goldfinch	*Carduelis psaltria*		On site
American goldfinch	*Carduelis tristis*		On site

[1] See Table 2 for definitions of Status acronyms.

Table 2. *Additional species of vertebrate wildlife reported at the project site and its pre-Topgolf neighbor in 2015.*

Common name	**Species name**	**Status[1]**
Western fence lizard	*Sceloporus occidentalis*	
Gopher snake	*Pituophis melanoleucus*	
Common garter snake	*Thamnophis sirtalis*	
Striped skunk	*Mephitis mephitis*	
Raccoon	*Procyon lotor*	
Western harvest mouse	*Reithrodontomys megalotis*	
House mouse	*Mus musculus*	Non-native
California vole	*Microtus californicus*	
Great blue heron	*Ardea herodius*	
Northern harrier	*Circus cyaneus*	BCC, SSC3
Cooper's hawk	*Accipiter cooperi*	BOP, WL
American kestrel	*Falco sparverius*	BOP
Barn owl	*Tyto alba*	BOP
Cliff swallow	*Petrochelidon pyrrhonota*	
Barn swallow	*Hirundo rustica*	
Bushtit	*Psaltriparus minimus*	
American robin	*Turdus migratorius*	
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	BCC, SSC3
Alameda song sparrow	*Melospiza melodia pusillula*	SSC2
Western meadowlark	*Sturnella neglecta*	
Red-winged blackbird	*Agelaius phoeniceus*	
Brewer's blackbird	*Euphagus cyanocephalus*	
House finch	*Haemorhous mexicanus*	

[1] See Table 2 for definitions of Status acronyms.

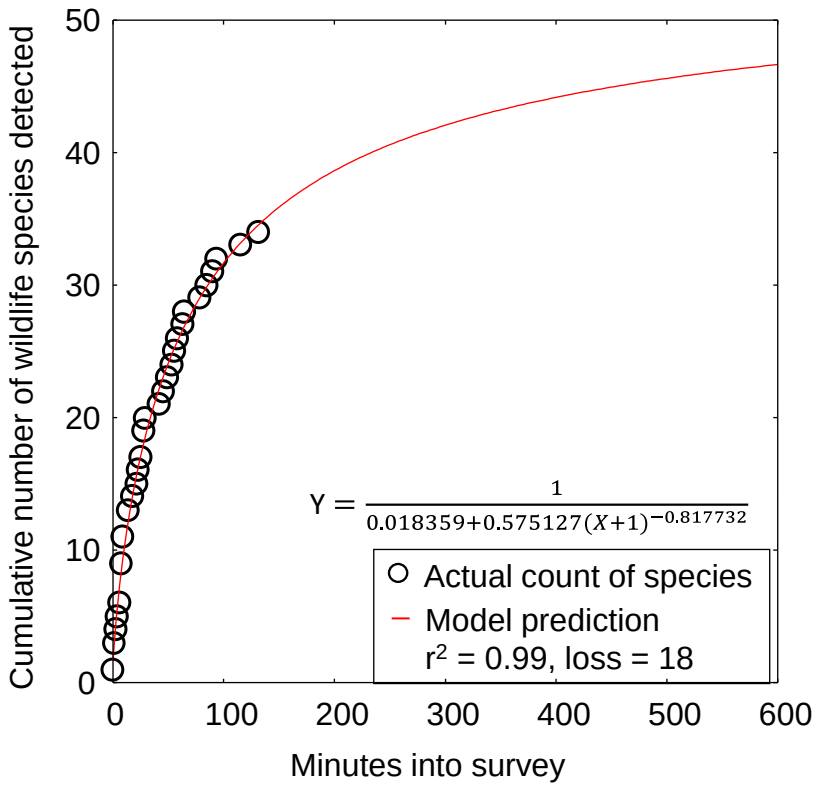
By recording when I detected each species, I was able to forecast the number of species likely to be detected with a longer effort using the same visual scan method. Figure 1 shows my cumulative counts of species detected with increasing time into both of my surveys. Just as I have seen for many other survey efforts, a nonlinear regression model fit the data very well, explaining 99% of the variation in the data, and the model showed progress towards the inevitable asymptote of the number of species detectable over a longer time period using the same survey method. In the case of this project site, my model predicted I would have eventually detected another 20 species, or 54 species of vertebrate wildlife in total, had I continued the survey using the same method on 30 October 2021.

I could have detected many more species than predicted by also performing surveys at other times of day to detect nocturnal and crepuscular species, or surveys in different seasons and years to detect migrants and species with multi-annual cycles of abundance, or surveys of different methods such as se of acoustic detectors or thermal-imaging for bats, owls, and nocturnally migratory birds, and live-trapping for small mammals. As it was, I detected 34 species. My reconnaissance-level survey, performed carefully and

analyzed appropriately, informs me that the site and its surrounds is rich in volant wildlife. What my survey data do not inform me, and what detection surveys could, is which of the potentially occurring special-status species actually occur at the site in addition to those I had the good fortune to detect.

The likelihood of detecting special-status species is typically lower than that of more common species. This difference can be explained by rarity of special-status species, which also tend to be more cryptic, fossorial, or active during nocturnal periods when reconnaissance surveys are not performed. Another useful relationship from careful recording of species detections and subsequent comparative analysis is the probability of detection of listed species as a function of an increasing number of vertebrate wildlife species detected (Figure 2). (Note that listed species number fewer than special-status species, which are inclusive of listed species.) As had been demonstrated in Figure 1, the number of species detected is largely a function of survey effort. Therefore, greater survey effort increases the likelihood that listed species will be detected (which is the first tenet of detection surveys for special-status species). Based on the outcomes of 152 previous surveys that I performed at sites of proposed projects, my survey effort at the project site carried a 43% chance of detecting a listed species and a 13% chance of detecting 2 listed species (Figure 2). As it turned out, I detected 2 listed species (California brown pelican and white-tailed kite) this time, although both were just outside the project boundary. WRA (2020) Detected 10 species of vertebrate wildlife, so their survey effort carried only a 12.5% chance of detecting a listed species and a 3% chance of detecting 2 listed species.

Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual scans on 30 October 2021 at the project site. Note that the relationships would differ if the survey was based on another method or during night or another season. Also note that the cumulative number of vertebrate species across all methods, times of day, and seasons would increase substantially.*



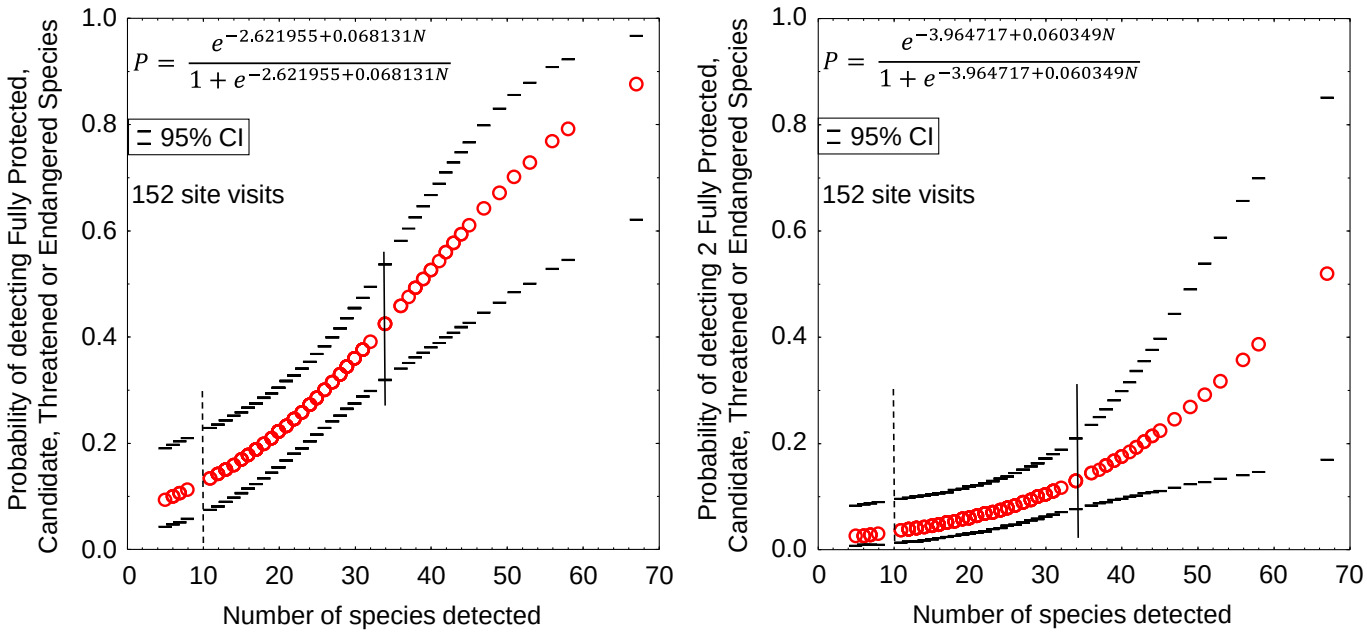


Figure 2. *Probability of detecting ≥1 Candidate, Threatened or Endangered Species of wildlife listed under California or federal Endangered Species Acts, based on survey outcomes that I logit-regressed on the number of wildlife species I detected as an expert witness during 152 site visits across California. Dashed vertical lines represent the numbers of species detected at the project site by WRA and solid vertical lines represent the numbers I detected on 30 October 2021.*

EXISTING ENVIRONMENTAL CONDITIONS

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. Methods to achieve this first step typically include surveys of the site for biological resources and reviews of literature, data bases and local experts for documented occurrences of special-status species. The IS/MND, however, is both incomplete and inaccurate in its characterization of the environmental setting as it relates to wildlife. The summary of ground cover is misleading. The survey of the site for biological resources was too cursory. The supporting review of literature and data bases was also much too cursory. I found additional problems with the premises used to determine occurrence likelihoods, and with the interpretation of available information. I will comment on these problems, but first I will comment on the biological resources survey.

Based on WRA's (2020) report, the IS/MND claims that 48% of the site is developed. This is not true. The so-called developed portion of the site was graded, but not developed. Developed land begins with the imposition of impervious surface, and often includes building structures. Graded land without impervious surface can support

vegetation and wildlife, and it does so at this project site. The land at issue at the project site was temporarily disturbed, but it is not developed.

In support of the IS/MND, WRA (2020) performed a biological resources survey at the site on 17 December 2019. Other than reporting the date of the survey, that it was traversed on foot, and its three objectives, WRA (2020) neglected to report the most basic information needed to assess the rigor of the biological survey. Decision-makers and the public ought to be informed about how many biologists performed the survey, names and qualifications of survey personnel, time of day the survey took place, how long the survey lasted, and which specific methods were used. Consumers of the IS/MND need to know these fundamentals because as I pointed out earlier, the number of wildlife species detected is largely a function of survey effort. WRA (2020) should have reported the level of effort committed to the project site and the methods used.

WRA reported their detections of 10 species of vertebrate wildlife. Given the 34 species I saw at the site during my <2-hour visit, and given the 41 or more species detected by Harvey & Associates (2016) over 2 surveys in 2015, I am astounded that the WRA biologist(s) who surveyed the site in 2019 detected a mere 10 species of wildlife (WRA 2020). WRA detected less than a third of the species I detected within a grassland/marsh filled with the sights and sounds of wildlife. WRA detected less than a fourth of the species characterized at the site by Harvey & Associates (2016). Within 9 minutes of my arrival the site, I detected more species of wildlife than did WRA. Why were the outcomes of my survey and the surveys of Harvey & Associates so different from WRA's? Without knowing how WRA performed their survey or who did it, I am at a loss for explanation. But I can conclude that the wildlife community of the project site is incompletely and inaccurately characterized in the IS/MND. I can also conclude that the biological resources survey provided an unacceptably poor basis for an analysis of potential project impacts to wildlife.

The IS/MND (page 58) states, "No special-status birds were observed within the project area during the site assessment." This statement exemplifies pseudoscience. It might be true on its face, but it represents a grossly deficient survey. Something is amiss with WRA's survey outcome, perhaps due to insufficient survey effort, or survey by an unqualified person, or survey at the wrong time of day. In my experience, so long as survey efforts and methods used are roughly equivalent between surveys, multiple surveys of a site tend to result in the same numbers of species and the same numbers of special-status species. It is not credible to have detected no special-status species of birds, whereas Harvey & Associates (2016) and I detected 13 special-status bird species on the site and another special-status species of bird just north of the site.

The literature and database reviews were also much too cursory to support an analysis of potential project impacts. WRA reported no interviews with local experts. Although other sources were listed by WRA, it appeared to me that the only source used was California Natural Diversity Data Base (CNDDB). CNDDB can be a helpful resource, but it is not the only resource available, nor is it the best resource for certain taxa such as birds. Whereas WRA (2020:12) reported, "42 special-status wildlife species have been recorded in the vicinity of the Project Area," my reviews of eBird and iNaturalist

combined with my own surveys in the area reveal 87 special-status species of wildlife known to occur in the area (Table 3).

The cursory approach taken by WRA resulted in many odd contradictions between WRA's occurrence-likelihood determinations and what members of the public have reported seeing at and near the project site. Of the 15 species that WRA determined to have no chance of occurrence or unlikely to occur, 1 was seen on site, 6 were reported in eBird within a mile or so of the site, and 2 species were reported within several miles (Table 3). Of the 68 special-status species that appear in Table 3 but which were not addressed by WRA, 13 have been detected at the project site, 38 have been detected within 1 mile of the site, and another 24 have been reportedly detected within several miles of the site. Again, the incomplete review of available information has left the characterization of the project site's wildlife community incomplete and inaccurate.

Earlier I mentioned that I would comment on additional problems I noticed with WRA's analysis of species' occurrence likelihoods. Here forth I add those comments.

According to WRA (2020:8), "The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species." But in fact, WRA relied on the outcome of their site visit to determine presence and absence of species – just what WRA (2020) said they would not do. As WRA (2020:7) explained, "The December 2019 site visit was conducted to search for suitable habitats for listed species. Habitat conditions observed at the Project Area were used to evaluate the potential for presence of listed species based on these searches…" Thus, the site visit was intended to determine species presence or absence.

An even more clear example of the WRA survey being used to conclude species' absence could be found in the IS/MND. According to the IS/MND (page 68), "no tricolored blackbirds were observed within or immediately adjacent to the project site during the site survey conducted during the breeding season, and the species is determined to be absent." WRA's survey was on 17 December 2019, which was not during the breeding season. The IS/MND's finding is factually incorrect. More importantly, the IS/MND's finding contradicts WRA's assurance that "The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species." The IS/MND's conclusion about tricolored blackbird presence was unfounded and misleading. WRA's assurance proved empty, but it was not the only empty assurance.

Although CNDDB was reportedly not used to determine occurrence likelihoods other than to confirm presence based on existing CNDDB records of a species on the project site (WRS 2020:7-8), absence of CNDDB records was used to determine no potential and unlikely occurrence likelihoods for multiple species (see WRA 2020: App. C). However, using CNDDB records this way was inappropriate because this was not what CNDDB was designed to do. Lack of CNDDB records does not mean a species is absent from a site nor from the area around the site. Consulting CNDDB is fine for confirming presence of a species, but it is inappropriate for determining absence and hence to narrow a list of potentially occurring species. CNDDB relies on voluntary reporting, but

Table 3. *Occurrence likelihoods of special-status species as determined by site visits (by Harvey & Associates or myself) or reports to eBird (https://eBird.org) and iNaturalist (https://www. inaturalist.org/observations).*

Species	***Scientific name***	**Status[1]**	**Data base, Site visits**	**Occurrence likelihood**	
				WRA	**KSS**
Western pond turtle	*Actinemys pallida*	SSC	Nearby	Unlikely	Possible
Brant	*Branta bernicla*	SSC2	Nearby		Possible
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	WL	Nearby		Possible
Redhead	*Aythya americana*	SSC2	Very close		Probable
Clark's grebe	*Aechmophorus clarkii*	BCC	Very close		Probable
Western grebe	*Aechmophorus occidentalis*	BCC	Very close		Probable
Double-crested cormorant	*Phalacrocorax auritus*	WL	On site		Certain
Brandt's cormorant	*Phalacrocorax penicillatus*	BCC	Very close		Probable
American white pelican	*Pelecanus erythrorhynchos*	SSC1	Very close		Probable
California brown pelican	*Pelecanus occidentalis californicus*	CFP	Very close		Probable
Turkey vulture	*Cathartes aura*	BOP	On site		Certain
Osprey	*Pandion haliaetus*	WL, BOP	Very close		Probable
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP	Very close	Unlikely	Probable
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CFP	Very close		Probable
Red-tailed hawk	*Buteo jamaicensis*	BOP	On site		Certain
Red-shouldered hawk	*Buteo lineatus*	BOP	Very close		Probable
Ferruginous hawk	*Buteo regalis*	BCC, WL, BOP	Very close		Probable
Swainson's hawk	*Buteo swainsoni*	BCC, CT, BOP	Very close	No potential	Probable
Sharp-shinned hawk	*Accipiter striatus*	BOP, WL	Very close		Probable
Cooper's hawk	*Accipiter cooperi*	BOP, WL	On site		Certain
Northern harrier	*Circus cyaneus*	SSC3, BOP	On site	Moderate	Certain
White-tailed kite	*Elanus leucurus*	CFP, WL, BOP	On site	Moderate	Certain
American kestrel	*Falco sparverius*	BOP	On site		Certain
Merlin	*Falco columbarius*	BOP, WL	Very close		Probable
Peregrine falcon	*Falco peregrinus*	CFP, BCC, BOP	Very close	Unlikely	Probable
Prairie falcon	*Falco mexicanus*	BCC, WL, BOP	Very close		Probable
Sandhill crane	*Grus c. canadensis*	CT, CFP, SSC3	Nearby		Possible
Snowy plover	*Charadrius alexandrinus*	FT, BCC, SSC	Nearby	No potential	Possible
Black oystercatcher	*Haematopus bachmani*	BCC	Nearby		Possible
Willet	*Tringa semipalmata*	BCC	Very close		Probable

Species	*Scientific name*	Status[1]	Data base, Site visits	Occurrence likelihood	
				WRA	KSS
Whimbrel	*Numenius phaeopus*	BCC	Very close		Probable
Long-billed curlew	*Numenius americanus*	BCC, WL	Very close		Probable
Marbled godwit	*Limosa fedua*	BCC	Very close		Probable
Red knot	*Calidris canutus*	BCC	Very close		Probable
Short-billed dowitcher	*Limnodromus griseus*	BCC	Very close		Probable
Heermann's gull	*Larus heermannii*	BCC	Nearby		Possible
California gull	*Larus californicus*	WL	On site		Certain
Western gull	*Larus occidentalis*	BCC	On site		Certain
Caspian tern	*Hydroprogne caspia*	WL	Very close		Probable
Elegant tern	*Thalasseus elegans*	BCC	Very close		Probable
Black tern	*Chlidonias niger*	BCC, SSC2	Very close		Probable
California least tern	*Sternula antillarum browni*	FE, CE	Very close	No potential	Probable
Black skimmer	*Rynchops niger*	BCC, SSC3	Very close	No potential	Possible
Western burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Very close	Moderate	Probable
Barn owl	*Tyto alba*	BOP	On site		Certain
Great-horned owl	*Bubo virginianus*	BOP	Nearby		Probable
Short-eared owl	*Asio flammeus*	BCC, SSC3, BOP	Very close		Probable
Long-eared owl	*Asio otus*	BCC, SSC3, BOP	Nearby		Possible
Western screech-owl	*Megascops kennicotti*	BOP	Nearby		Probable
Northern pygmy-owl	*Glaucidium gnoma*	BOP	Nearby		Possible
Black swift	*Cypseloides niger*	BCC, SSC3	Nearby		Possible
Vaux's swift	*Chaetura vauxi*	SCC2	Very close		Probable
Purple martin	*Progne subis*	SCC2	Nearby		Possible
Allen's hummingbird	*Selasphorus sasin*	BCC	Nearby		Possible
Rufous hummingbird	*Selasphorus rufus*	BCC	Nearby		Probable
Costa's hummingbird	*Calypte costae*	BCC	In region		Possible
Nuttall's woodpecker	*Picoides nuttallii*	BCC	Very close		Probable
Olive-sided flycatcher	*Contopus cooperi*	SSC2	Nearby		Possible
Willow flycatcher	*Empidonax traillii*	CE, BCC	Very close		Probable
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2	Nearby		Possible
Oak titmouse	*Baeolophus inornatus*	BCC	Very close		Probable
Wrentit	*Chamaea fasciata*	BCC	Nearby		Possible

Species	*Scientific name*	Status[1]	Data base, Site visits	Occurrence likelihood	
				WRA	KSS
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2	Very close		Probable
California thrasher	*Toxostoma redivivum*	BCC	Nearby		Possible
Yellow-billed magpie	*Pica nuttalli*	BCC	Nearby		Possible
Yellow warbler	*Setophaga petechia*	BCC, SSC2	Very close		Probable
Yellow-breasted chat	*Icteria virens*	SSC3	Nearby		Possible
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	BCC, SSC3	On site	Moderate	Certain
Bryant's savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3	On site		Certain
Vesper sparrow	*Pooecetes gramineus affinis*	SSC2	Nearby		Possible
Alameda song sparrow	*Melospiza melodia pusillula*	SSC2	On site	Unlikely	Certain
Grasshopper sparrow	*Ammodramus savannarum*	SSC2	Nearby		Possible
Tricolored blackbird	*Agelaius tricolor*	CT, BCC	Very close	Unlikely	Probable
Yellow-headed blackbird	*X. xanthocephalus*	SSC3	Very close		Probable
Bullock's oriole	*Icterus bullockii*	BCC	Very close		Probable
Lawrence's goldfinch	*Carduelis lawrencei*	BCC	nearby		Possible
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H	In region	Unlikely	Possible
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H	In region	No potential	Possible
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H	In region		Possible
Fringed myotis	*Myotis thysanodes*	WBWG:H	In range		Possible
Yuma myotis	*Myotis yumanesis*	WBWG:H	In region		Possible
Long-legged myotis	*Myotis volans*	WBWG:M	In region		Possible
Miller's myotis	*Myotis evotis*	WBWG:M	In region	Unlikely	Possible
Western small-footed myotis	*Myotis cililabrum*	WBWG:M	In region		Possible
Hoary bat	*Lasiurus cinereus*	WBWG:M	In region	No potential	Possible
Salt-marsh wandering shrew	*Sorex vagrans halicoetes*	SSC	No records	Unlikely	Possible
Salt marsh harvest mouse	*Reithrodontomys raviventris*	FE, CE, CFP	In region	Unlikely	Possible

[1] Listed as BCC = U.S. Fish and Wildlife Service Bird Species of Conservation Concern, CE = California endangered, CT = California threatened, CFP = California Fully Protected (California Fish and Game Code 3511), BOP = California Fish and Game Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and WL = Taxa to Watch List (Shuford and Gardali 2008).

not on scientific sampling or access to all properties. The limitations of CNDDB are well-known, and summarized by California Department of Fish and Wildlife in a warning presented on its CNDDB web site (https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data): "*We work very hard to keep the CNDDB and the Spotted Owl Database as current and up-to-date as possible given our capabilities and resources. However, we cannot and do not portray the CNDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide. Field verification for the presence or absence of sensitive species will always be an important obligation of our customers…*" WRA's use of CNDDB records as a standard condition for determining species are unlikely to occur or have no potential to occur is inconsistent with CNDDB's purpose and therefore pseudoscientific.

Another flaw in WRA's analysis of occurrence likelihoods was its premise was that only impacts to breeding habitat qualify as significant impacts. For multiple species, such as for peregrine falcon and tricolored blackbird, WRA (2020) contrives a distinction between nesting habitat and non-nesting habitat. WRA then states that because nesting substrate needed by the species is unavailable at the project site, the species cannot breed there and thus project impacts would be less than significant. In reality, all of a species' habitat is of critical importance to the species regardless of where breeding sites are located. After all, no matter where a species breeds, members of the species cannot breed successfully without also surviving migration and the non-breeding season. Animals cannot breed successfully with insufficient forage or opportunities for stopover refugia during migration or opportunities for staging areas or for mate-selection and all the other functions the animal must perform to successfully breed. Species for which WRA determined occurrence likelihood based on whether it would breed on site were inaccurately and incompletely characterized as part of the wildlife community at the project site.

My determinations of species occurrence likelihoods are much more optimistic, and I believe more accurate, than those of WRA. Of the special-status species in Table 3, I conclude 13 certainly occur at the site, 40 probably occur, and 34 possibly occur. Of the 6 species WRA determined to have no chance of occurring, I conclude 3 are possible and 3 are probable. With additional site visits, I am confident that I could replace most of the many possible and probable occurrence likelihoods with certainty of occurrence of special-status species listed in Table 3. Existing conditions at the site have not been sufficiently nor accurately characterized – not by me and mostly certainly not by WRA nor the IS/MND. There is at least a fair argument to be made for the need to prepare an EIR to more accurately and thoroughly characterize the environmental setting in support of the impacts analysis that is needed for the project.

BIOLOGICAL IMPACTS ANALYSIS

The IS/MND provides no serious analysis of potential impacts to biological resources caused by habitat loss, window collision mortality, nor automobile collision mortality. A serious analysis of these impacts would begin with predictions of the magnitudes of the impacts. The IS/MND provides no such predictions, but I do so in the following comments.

HABITAT LOSS

Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity (Smallwood 2015). For example, two study sites in grassland/wetland/woodland complexes had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Applying this density to the project site, 34.3 nests/acre multiplied against 6.23 acres would predict a loss of 214 bird nests. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, then the project would prevent the production of 621 fledglings per year. After 100 years and assuming an average generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from the following formula: {(nests/year × chicks/nest × number of years) + ((2 adults/nest × nests/year) × (number of years ÷ years/generation))}. In the case of this project, this formula predicts **the project would deny California 70,660 birds over the next century due solely to loss of terrestrial habitat**. This predicted loss would be substantial, and would qualify as significant impacts that have yet to be addressed by the IS/MND. A fair argument can be made for the need to prepare an EIR to appropriately analyze potential project impacts to wildlife.

Additional habitat loss can be expected from artificial light pollution that would emanate from the project. The IS/MND dismisses this impact by claiming that lighting from the project would not exceed the ambient light of neighboring projects. This is an interesting claim because light pollution from neighboring projects appeared substantial to me when I arrived to the project site early on the morning of 30 October 2021. The project site was lit by floodlamps directed right at it from the TopGolf facility (see Photos 15 and 16). The TopGolf lights were so bright that the poles supporting the 170-foot-tall net were brightly lit right next to the project site (Photo 16). The light reaching the marsh on the project site likely degraded the habitat there for multiple species of wildlife. The added lights of the hotel would add to this degradation.

In its report of potential impacts of the TopGolf facility, Harvey & Associates (2016:32) wrote, "The photometric plan shows that no light will travel beyond the property line (shown as 0.0). Thus, impacts from increased lighting would be less than significant." What I saw of the light management at the project site was just as contrary to Harvey & Associates' assurance as was the IS/MND's depiction of the moon north rather than south of the TopGolf facility (Photo 15).

Despite the false claim that half the site is developed (WRA 2020), which it clearly is not, the proposed project would take habitat and it would further degrade what little habitat would remain next to Guadalupe River. It would reduce the productive capacity of birds and other wildlife, many species of which are special-status species. There is at least a fair argument to be made for the need to prepare an EIR to more carefully and appropriately analyze potential impacts to wildlife that would be caused by habitat loss, habitat fragmentation, and habitat degradation.

Photos 15 and 16. *Depiction of the TopGolf site's illumination at night, according to the IS/MND prepared for the TopGolf project (top), and the actual type of illumination visible on the morning of 30 October 2021 (bottom). The lights on the building were sufficiently powerful to illuminate the poles supporting the net at the southern end of the project, and when I first arrived, the site of the proposed project was also lit by the TopGolf project. The lights appeared much brighter than could be shown in a photo. Note also that the moon would never occur where the IS/MND depicted it, which was north of the project.*

WILDLIFE MOVEMENT

The IS/MND does not really analyze the project's potential impacts to wildlife movement in the region. Instead, it addresses bird-window collision mortality. On page 63, it explains "The project site is in the vicinity of known avian breeding and migratory habitat. Building features, most often those associated with lighting or glass components (i.e., glazing), can attract birds from these nearby habitats and cause mortality in the form of collisions resulting from confusion." Following this strange shifting of issues from wildlife movement to bird-window collisions, the IS/MND discusses building design standards and how they relate to bird-window collision mortality.

In the above quoted statement, the IS/MND acknowledges that the project site is in the vicinity of migratory birds. It is on a major corridor on a major migratory route known as the Pacific Flyway. The project site is located right where the western and eastern shores of the San Francisco Bay funnel shore-hugging migratory birds toward their passage through the Santa Clara Valley. City of San Jose (2014) estimate that more than a million birds pass through greater San Jose each year. The project is proposed right where many of these birds likely pass during migration, and these are birds protected by the Migratory Bird Treaty Act, the recently amended California Fish and Game Code 3513 intended to further protect migratory birds, and additional statues that protect many of these species (see Table 3). A fair argument can be made for the need to prepare an EIR to appropriately analyze potential project impacts to wildlife movement in the region.

ROAD MORTALITY

As will be described below, a basis for predicting wildlife mortality can be found in the prediction of annual vehicle miles traveled (VMT). According to the IS/MND (page 82), the project would generate an annual VMT of 599,330. The traffic analysis, however, predicts the project would generate 1,642 daily trips (pages 165-167). One of these predictions must be in error, because 1,642 daily trips × 365 days in the year = 599,330, which would mean the average miles per trip would be 1. Either the traffic analysis is wrong or the fuel use analysis is wrong, but it is not my role to comment on these issues. For my issue, I will assume 15 miles per trip and 25 miles per trip as the bounds of a range representing the average number of miles per trip.

These vehicle trips – however far they would actually average -- would kill wildlife (Photos 17 through 19). A fundamental shortfall of the IS/MND is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including species such as western pond turtle (*Actinemys pallida*), American badger (*Taxidea taxus*), California red-legged frog (*Rana draytonii*) and California tiger salamander (*Ambystoma californiense*) among many others. Many animals that would be killed by the traffic generated from this project would be located far from the project's construction footprint; they would be crossing roads traversed from cars and trucks originating from or headed toward the project site. The project's impacts on wildlife would reach as far from the project as cars and trucks travel to or from the project site. Despite the obvious risk to wildlife, and despite the multiple papers and

books written about this type of impact and how to mitigate them, the IS/MND does not address impacts to wildlife caused by vehicles traveling to and from the project site.

Photo 17. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

Photo 18. *A mourning dove killed by vehicle traffic on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 19. *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America, traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 33 miles from the project site, along a 2.5 mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study right next to Vasco Road (Brown et al. 2016). The Brown et al. (2016) adjustment factors were similar to those for carcass persistence of road fatalities (Santos et al. 2011). Applying searcher detection rates estimated from carcass detection trials performed at a wind energy project immediately adjacent to this same stretch of road (Brown et al. 2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the road. This fatality number translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic on roads within the City of San Jose and the South Bay Area would similarly result in intense local impacts on wildlife.

Predicting project-generated traffic impacts to wildlife

The IS/MND predicts that the project would generate 1,642 trips per day. Assuming 15 to 25 miles per trip, annual VMT would be 8,989,950 to 14,983,250. This would be a lot of mileage to be driven at great peril to wildlife that must cross roads to go about their business of foraging, patrolling home ranges, dispersing and migrating. But it can also serve as a basis for predicting impacts to wildlife.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although despite the nearness of the Mendelsohn et al. (2009) study to the project site, it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels,

desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species).

During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the low and high ends of the annual VMT predicted above, I predict the project would cause 4,926 to 8,210 wildlife fatalities per year. **Operations over 50 years would accumulate 246,300 to 410,500 wildlife fatalities**. It remains unknown whether and to what degree vehicle tires contribute to carcass removals from the roadway, thereby contributing a negative bias to the fatality estimates I made from the Mendelsohn et al. (2009) fatality counts.

Based on my assumptions and simple calculations, the project-generated traffic would cause substantial, significant impacts to wildlife. There is at least a fair argument that can be made for the need to prepare an EIR to analyze this impact. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project.

BIRD-WINDOW COLLISION MORTALITY

Inserting multi-storied buildings onto the project site would intercept some portion of the birds flying through the project's airspace, and would otherwise interfere with movement of volant wildlife. It is also important to note that the hotel and garage buildings would be built next to an existing 170-foot tall net that surrounds the TopGolf facility. The combination of the TopGolf net and the project's buildings would pose a formidable barrier to wildlife trying to migrate along the Guadalupe River corridor and the greater Pacific Flyway. It would also pose formidable cumulative effects of collision mortality because TopGolf's net and its supporting guy cables remain unmarked and therefore difficult for birds to see and avoid.

According to the CEQA review prepared for the TopGolf facility, the net surrounding the facility was supposed to be visible to birds. Harvey & Associates (2016:43) assured, "Net marking devices, such as FireFlys (http://www.slatercom.com/datasheets/PR-Firefly.pdf) or BirdMark BM-AG (After Glow) (http://www.slatercom.com/datasheets/PR-BirdMark.pdf) that glow in the dark will be placed along all sections of the netting perimeter rope and rib lines, to form vertical rows of flight diverters in the center of each area of netting between support poles. The maximum distance between such marking devices, and/or between such marking devices and support poles, will be 15 ft." According to the IS/MND (p. 100) prepared for the TopGolf project, "Net marking devices, such as FireFlys or BirdMark BM-AG, shall be placed along all sections of the netting perimeter rope and rib lines to form vertical rows of flight diverters in the center of each area of netting between support poles. The maximum distance between such

marking devices, and/or between such marking devices and support poles, shall be 15 feet. [Less Than Significant Impact With Mitigation]" The markers identified for use in the TopGolf IS/MND are shown in Figure 3. I did not see any of these markers on TopGolf's net, nor do any of them appear in Photo 16.

TopGolf's net, which poses a serious collision risk to migratory and resident birds, is likely even more dangerous without the promised marking devices. If the hotel project is constructed as proposed, then windows of the hotel would be only 23 m from TopGolf's net. There could be a visual interaction effect between the net and the hotel's windows that increases collision risk. There would likely be a severe funneling bird traffic between TopGolf's net and the hotel.

Figure 3. *Line markers identified in the TopGolf IS/MND for deployment on the net surrounding the project site, but which in fact did not occur during my site visit on 30 October 2021. The unmarked net and all of its supporting guy cables were unmarked and difficult to see against a sky background. Against the backdrop of a glass-facaded building, these nets and guy cables might prove even more difficult for birds to see.*

Photo 4.4-3: Examples of net marking devices

One of the most prominent features of the proposed hotel building is its liberal use of structural glass on its facades. Renderings of the building depict facades composed of extensive transparent and reflective glass. The project as depicted would introduce substantial collision hazards to an aerosphere that currently provides critically important habitat to birds, and which would act as lethal traps to flying birds. The IS/MND claims that non-reflective glass would be used, but the renderings of the project in the same document depict reflective glass on the hotel.

Window collisions are often characterized as either the second or third largest source or human-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively.

However, these estimates were likely biased too low, because they were based on opportunistic sampling, volunteer study participation, fatality monitoring by more inexperienced than experienced searchers, and usually no adjustments made for scavenger removals of carcasses before searchers could detect them (Bracey et al. 2016).

Hundreds of thousands of birds migrate along the Pacific Flyway. My observations during my visit to the site confirmed that birds fly through the airspace of the project, even during the nonmigratory season. At least 75 special-status species of bird are known to the project area (Table 3). According to the scientific literature, most of the special-status species in Table 3 have been documented as window collision fatalities and are therefore susceptible to new structural glass installations (Supplemental Material to Basilio et al. 2020; Smallwood unpublished review). Many more species of migratory birds, newly protected by California's revised Fish and Game Code section 3513, have also been documented as window collision victims (Basilio et al. 2020).

I am concerned about the extent and context of glass proposed for the project. Recent advances in structural glass engineering have contributed to a proliferation of glass windows on building façades. This proliferation is readily observable in newer buildings and in recent project planning documents, and it is represented by a worldwide 20% increase in glass manufacturing for building construction since 2016. Glass markets in the USA experienced 5% growth in both 2011 and 2016, and was forecast to grow 2.3% per year since 2016 (TMCapital 2019). Increasing window to wall ratios and glass façades have become popular for multiple reasons, including a growing demand for 'daylighting.' Consistent with the trends just outlined, and as highlighted in the IS/MND's renderings of the project, glass windows comprise a major feature of the proposed project.

The proposed hotel could be designed to be safter to birds. The depictions of the building's façades are inconsistent with standards identified in Bird-Safe Guidelines I have reviewed. The depictions of the project show that large windows would reflect outdoor vegetation, and large transparent windows would give birds the false sense of open space. WRA (2020) provides a brief analysis of bird-window collision impacts, but touches on only a few of the known causal factors. As I will show in the next section, many birds can be expected to be killed by the many large windows of the proposed project. A fair argument can be made for the need to prepare an EIR to adequately address this potential impact.

Project Impact Prediction

Predicting the impacts caused by loss of aerial habitat and the energetic costs of birds having to navigate around the buildings is possible, but I am unprepared to make such predictions. However, I am prepared to predict bird-window collision mortality. By the time of these comments I had reviewed and processed results of bird collision monitoring at 213 buildings and façades for which bird collisions per m^2 of glass per year could be calculated and averaged (Johnson and Hudson 1976, O'Connell 2001, Somerlot 2003, Hager et al. 2008, Borden et al. 2010, Hager et al. 2013, Porter and Huang 2015, Parkins et al. 2015, Kahle et al. 2016, Ocampo-Peñuela et al. 2016, Sabo et

al. 2016, Barton et al. 2017, Gomez-Moreno et al. 2018, Schneider et al. 2018, Loss et al. 2019, Brown et al. 2020, City of Portland Bureau of Environmental Services and Portland Audubon 2020, Riding et al. 2020). These study results averaged 0.073 bird deaths per m^2 of glass per year (95% CI: 0.042-0.102). Based on schematics of the project in the IS/MND, I estimated the proposed medical office building would include at least 2,661 m^2 of glass panels, which applied to the mean fatality rate would predict at least **195 bird deaths per year (95% CI: 115-274)** at the building. The 100-year toll from this average annual fatality rate would be at least **19,452 bird deaths (95% CI: 11,549-27,355)**. These estimates would be perhaps 3 times higher after accounting for the proportions of fatalities removed by scavengers or missed by fatality searchers where studies have been performed. Collision fatalities would continue until the buildings are either renovated to reduce bird collisions or they come down. If the project moves forward as proposed, and annually kills 195 birds protected by state and federal laws, then the project would cause significant unmitigated impacts.

Bird-Window Collision Factors

Below is a list of collision factors I found in the scientific literature, and which I suggest ought to be used to improve San Jose's Bird-Safe Guidelines. Following this list are specific notes and findings taken from the literature and my own experience.

(1) Inherent hazard of a structure in the airspace used for nocturnal migration or other flights
(2) Window transparency, falsely revealing passage through structure or to indoor plants
(3) Window reflectance, falsely depicting vegetation, competitors, or open airspace
(4) Black hole or passage effect
(5) Window or façade extent, or proportion of façade consisting of window or other reflective surface
(6) Size of window
(7) Type of glass
(8) Lighting, which is correlated with window extent and building operations
(9) Height of structure (collision mechanisms shift with height above ground)
(10) Orientation of façade with respect to winds and solar exposure
(11) Structural layout causing confusion and entrapment
(12) Context in terms of urban-rural gradient, or surrounding extent of impervious surface vs vegetation
(13) Height, structure, and extent of vegetation grown near home or building
(14) Presence of birdfeeders or other attractants
(15) Relative abundance
(16) Season of the year
(17) Ecology, demography and behavior
(18) Predatory attacks or cues provoking fear of attack
(19) Aggressive social interactions

(1) Inherent hazard of structure in airspace.—Not all of a structure's collision risk can be attributed to windows. Overing (1938) reported 576 birds collided with the Washington

Monument in 90 minutes on one night, 12 September 1937. The average annual fatality count had been 328 birds from 1932 through 1936. Gelb and Delacretaz (2009) and Klem et al. (2009) also reported finding collision victims at buildings lacking windows, although many fewer than they found at buildings fitted with widows. The takeaway is that any building going up at the project site would likely kill birds, although mortality would increase with larger expanses of glass.

(2) Window transparency.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the transparency of glass used in windows on the buildings (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred where transparent windows revealed interior vegetation.

(3) Window reflectance.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the reflectance of glass used in windows on the buildings (Klem 1989). Reflectance can deceptively depict open airspace, vegetation as habitat destination, or competitive rivals as self-images (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred toward the lower parts of buildings where large glass exteriors reflected outdoor vegetation. Klem et al. (2009) and Borden et al. (2010) also found that reflected outdoor vegetation associated positively with collisions.

(4) Black hole or passage effect.—Although this factor was not often mentioned in the bird-window collision literature, it was suggested in Sheppard and Phillips (2015). The black hole or passage effect is the deceptive appearance of a cavity or darkened ledge that certain species of bird typically approach with speed when seeking roosting sites. The deception is achieved when shadows from awnings or the interior light conditions give the appearance of cavities or protected ledges. This factor appears potentially to be nuanced variations on transparency or reflectance or possibly an interaction effect of both of these factors.

(5) Window or façade extent.—Klem et al. (2009), Borden et al. (2010), Hager et al. (2013), Ocampo-Peñuela et al. (2016), Loss et al. (2019), Rebolo-Ifrán et al. (2019), and Riding et al. (2020) reported increased collision fatalities at buildings with larger reflective façades or higher proportions of façades composed of windows. However, Porter and Huang (2015) found a negative relationship between fatalities found and proportion of façade that was glazed.

(6) Size of window.—According to Kahle et al. (2016), collision rates were higher on large-pane windows compared to small-pane windows.

(7) Type of glass.—Klem et al. (2009) found that collision fatalities associated with the type of glass used on buildings. Otherwise, little attention has been directed towards the types of glass in buildings.

(8) Lighting.—Parkins et al. (2015) found that light emission from buildings correlated positively with percent glass on the façade, suggesting that lighting is linked to the

extent of windows. Zink and Eckles (2010) reported fatality reductions, including an 80% reduction at a Chicago high-rise, upon the initiation of the Lights-out Program. However, Zink and Eckles (2010) provided no information on their search effort, such as the number of searches or search interval or search area around each building.

(9) Height of structure.—Except for Riding et al. (2020), I found little if any hypothesis-testing related to building height, including whether another suite of factors might relate to collision victims of high-rises. Are migrants more commonly the victims of high-rises or of smaller buildings? Some of the most notorious buildings are low-rise buildings.

(10) Orientation of façade.—Some studies tested façade orientation, but not convincingly. Some evidence that orientation affects collision rates was provided by Winton et al. (2018). Confounding factors such as the extent and types of windows would require large sample sizes of collision victims to parse out the variation so that some portion of it could be attributed to orientation of façade. Whether certain orientations cause disproportionately stronger or more realistic-appearing reflections ought to be testable through measurement, but counting dead birds under façades of different orientations would help.

(11) Structural layout.—Bird-safe building guidelines have illustrated examples of structural layouts associated with high rates of bird-window collisions, but little attention has been directed towards hazardous structural layouts in the scientific literature. An exception was Johnson and Hudson (1976), who found high collision rates at 3 stories of glassed-in walkways atop an open breezeway, located on a break in slope with trees on one side of the structure and open sky on the other, Washington State University.

(12) Context in urban-rural gradient.—Numbers of fatalities found in monitoring have associated negatively with increasing developed area surrounding the building (Hager et al. 2013), and positively with more rural settings (Kummer et al. 2016).

(13) Height, structure and extent of vegetation near building.—Correlations have sometimes been found between collision rates and the presence or extent of vegetation near windows (Hager et al. 2008, Borden et al. 2010, Kummer et al. 2016, Ocampo-Peñuela et al. 2016). However, Porter and Huang (2015) found a negative relationship between fatalities found and vegetation cover near the building. In my experience, what probably matters most is the distance from the building that vegetation occurs. If the vegetation that is used by birds is very close to a glass façade, then birds coming from that glass will be less likely to attain sufficient speed upon arrival at the façade to result in a fatal injury. Too far away and there is probably no relationship. But 30 to 50 m away, and birds alighting from vegetation can attain lethal speeds by the time they arrive at the windows.

(14) Presence of birdfeeders.—Dunn (1993) reported a weak correlation ($r = 0.13$, $P < 0.001$) between number of birds killed by home windows and the number of birds counted at feeders. However, Kummer and Bayne (2015) found that experimental installment of birdfeeders at homes increased bird collisions with windows 1.84-fold.

(15) Relative abundance.—Collision rates have often been assumed to increase with local density or relative abundance (Klem 1989), and positive correlations have been measured (Dunn 1993, Hager et al. 2008). However, Hager and Craig (2014) found a negative correlation between fatality rates and relative abundance near buildings.

(16) Season of the year.—Borden et al. (2010) found 90% of collision fatalities during spring and fall migration periods. The significance of this finding is magnified by 7-day carcass persistence rates of 0.45 and 0.35 in spring and fall, rates which were considerably lower than during winter and summer (Hager et al. 2012). In other words, the concentration of fatalities during migration seasons would increase after applying seasonally-explicit adjustments for carcass persistence. Fatalities caused by collisions into the glass façades of the project's building would likely be concentrated in fall and spring migration periods.

(17) Ecology, demography and behavior.—Klem (1989) noted that certain types of birds were not found as common window-caused fatalities, including soaring hawks and waterbirds. Cusa et al. (2015) found that species colliding with buildings surrounded by higher levels of urban greenery were foliage gleaners, and species colliding with buildings surrounded by higher levels of urbanization were ground foragers. Sabo et al. (2016) found no difference in age class, but did find that migrants are more susceptible to collision than resident birds.

(18) Predatory attacks.—Panic flights caused by raptors were mentioned in 16% of window strike reports in Dunn's (1993) study. I have witnessed Cooper's hawks chasing birds into windows, including house finches next door to my home and a northern mocking bird chased directly into my office window. Predatory birds likely to collide with the project's windows would include Peregrine falcon, red-shouldered hawk, Cooper's hawk, and sharp-shinned hawk.

(19) Aggressive social interactions.—I found no hypothesis-testing of the roles of aggressive social interactions in the literature other than the occasional anecdotal account of birds attacking their self-images reflected from windows. However, I have witnessed birds chasing each other and sometimes these chases resulting in one of the birds hitting a window.

For most of the known or suspected collision risk factors, the proposed project's design would either contribute amply to collision risk, or its contribution remains unknown due to insufficient reporting of existing environmental conditions and project design (Table 4). Focused study of birds in the area could reduce the uncertainty of potential project impacts. Such studies could make use of radar (Gauthreaux et al. 2008) or visual scan surveys (Smallwood 2017). Key information useful for impacts assessment and mitigation would include intensity and timing of bird traffic, heights above ground, travel trajectories, and specific behaviors of birds in flight.

Table 4. *Window collision risk factors, their weightings based on the scientific literature, and the level of risk introduced by the proposed project.*

Collision risk to volant wildlife		
Factor	**Weighting**	**Added by project**
Inherent hazard of structure	Universal	Amply
Window transparency	Very high	Amply
Window reflectance	Very high	Amply
Black hole or passage effect	High	Possible with reflection of TopGolf net
Window or façade extent	Very high	Amply
Size of window	High	Amply
Type of glass	High	Likely but unknown
Lighting	High	Amply
Height of structure	High	Amply
Orientation of façade	Unknown	Amply
Structural layout	High	Amply with funnel effect
Context in urban-rural gradient	Likely high	Amply
Height, structure and extent of vegetation near building	High	Amply
Presence of birdfeeders	Moderate	Unknown
Relative abundance	Uncertain	Amply
Season of the year	Nonspatial	Not applicable
Ecology, demography and behavior	Uncertain	Amply
Predatory attacks	Uncertain	Unknown
Aggressive social interactions	Uncertain	Unknown

Window Collision Solutions

Given the magnitude of bird-window collision impacts, there are obviously great opportunities for reducing and minimizing these impacts going forward. Existing structures can be modified or retrofitted to reduce impacts, and proposed new structures can be more carefully sited, designed, and managed to minimize impacts. However, the costs of some of these measures can be high and can vary greatly, but most importantly the efficacies of many of these measures remain uncertain. Both the costs and effectiveness of all of these measures can be better understood through experimentation and careful scientific investigation. **Post-construction fatality monitoring should be an essential feature of any new building project**. Below is a listing of mitigation options, along with some notes and findings from the literature.

Any new project should be informed by preconstruction surveys of daytime and nocturnal flight activity. Such surveys can reveal the one or more façades facing the prevailing approach direction of birds, and these revelations can help prioritize where certain types of mitigation can be targeted. It is critical to formulate effective measures

prior to construction, because post-construction options will be limited, likely more expensive, and probably less effective.

(1) Retrofitting to reduce impacts

(1A) Marking windows
(1B) Managing outdoor landscape vegetation
(1C) Managing indoor landscape vegetation
(1D) Managing nocturnal lighting

(1A) Marking windows.— Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 69% after placing decals on windows. In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86 fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film. At the building with fritted glass, bird collisions were 82% lower than at other buildings with untreated windows. Kahle et al. (2016) added external window shades to some windowed façades to reduce fatalities 82% and 95%. Brown et al. (2020) reported an 84% lower collision probability among fritted glass windows and windows treated with ORNILUX R UV. City of Portland Bureau of Environmental Services and Portland Audubon (2020) reduced bird collision fatalities 94% by affixing marked Solyx window film to existing glass panels of Portland's Columbia Building. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015).

Following up on the results of Johnson and Hudson (1976), I decided to mark windows of my home, where I have documented 5 bird collision fatalities between the time I moved in and 6 years later. I marked my windows with decals delivered to me via US Postal Service from a commercial vendor. I have documented no fatalities at my windows during the 10 years hence. In my assessment, markers can be effective in some situations.

(2) Siting and Designing to minimize impacts

(2A) Deciding on location of structure
(2B) Deciding on façade and orientation
(2C) Selecting type and sizes of windows
(2D) Designing to minimize transparency through two parallel façades
(2E) Designing to minimize views of interior plants
(2F) Landscaping to increase distances between windows and trees and shrubs

(3) Monitoring for adaptive management to reduce impacts

(3A) Systematic monitoring for fatalities to identify seasonal and spatial patterns
(3B) Adjust light management, window marking and other measures as needed.

WRA Analysis of Bird-Window Collision Risk

WRA is to be commended for addressing this issue. Its analysis, however, could be vastly improved with use of more literature on the topic. It relied on building design

guidelines, which is helpful, but it made no use of the literature including research studies. It also addressed only a few risk factors, and merely summarizes the City of San Jose (2014) Downtown Design Guidelines. This summary of guidelines seems empty considering lack of project adherence to the guidelines, as detailed below.

According to the Guidelines, "Bird safety treatments may include: exterior screens, louvers, grilles, shutters, sunshades, bird-safe patterns, or other methods to reduce the likelihood of bird collisions." I did not see any of these features depicted in renderings of the project in the IS/MND.

According to the Guidelines, "Exterior decorative lighting on these buildings should additionally be turned off between 2:00 AM and 6:00 AM, except during June, July, December, and January where birds may be migrating and constraints may be increased. This may involve turning non-emergency lighting off or shielding it at night (after sunset) to minimize light from buildings that is visible to birds." I saw no measure to this effect in the IS/MND.

The WRA analysis is flawed in several other ways. For example, it notes that "The amount of glazing proposed is relatively low overall in comparison to some similarly-scaled developments in the region." I do not agree with this assessment, but it is irrelevant. Potential impacts of a project should be analyzed specific to the project and not weighed against what other developers got away with.

WRA argues, "The percent of glazing on the exterior elevations is less than 50 percent overall and approximately the same on all faces. The remainder of the buildings' exteriors consist of opaque materials (e.g. cement and metal siding)." This argument neglects collision mortality known to occur at buildings without windows (e.g., Overing 1938). Nor can WRA link a specific percentage of glazed facade to levels of collision mortality.

WRA assures that "All residential units within the development will have interior blinds or curtains installed on windows." But residents would not have to close their blinds. The guidelines call for external features to the windows, not internal features such as blinds or curtains.

WRA points out that "Overhangs, spatially offset adjacent faces, and similar forms of architectural relief along the exterior of the building will "break up" the exterior of the building visually (providing "visual noise"), and increase the likelihood that flying birds will perceive the building as a solid surface. Shadows formed by these overhangs and relief will contribute to this perception." Actually, such overhangs and their shadows would create the black hole or passage effects I summarized earlier. They would likely increase rather than reduce risk.

WRA speculates that "Similar to the architectural relief elements described above, the buildings will feature different colors and textures across adjacent faces and sections, creating additional "visual noise"." WRA cites no evidence to support this notion that different colors on a facade would reduce collision mortality.

WRA points out that "While the original design included hotel room balconies with associated guardrails, the new design eliminates balconies on higher levels of the hotel." What the previous plans included is irrelevant to the analysis of impacts posed by the current project.

WRA speculates that "The parking garage designs … Green walls installed along the ground level … may attract some birds (e.g., for foraging opportunities)." WRA offers no evidence to support the notion that birds would be attracted to green walls to forage. Frankly, this notion is silly.

WRA speculates that "Though the Project Area is in relatively close proximity to wetlands associated with the Don Edwards National Wildlife Refuge Complex, it is surrounded on all other sides by urban (residential or light industrial) development. As such, it is unlikely to provide a collision risk to flocks of waterbirds (e.g., waterfowl, shorebirds) that congregate on San Francisco Bay and shoreline habitats during the winter period and spring-fall migration." In fact, the project site is not surrounded on all sides by urban development. One side is composed of the Guadalupe River. While I visited the site, I observed many birds flying across the project site.

WRA concludes "…the designs for the Project suggest a low overall risk for bird collisions…" I disagree. The shape of the building would funnel bird traffic along the north side of the building and into those portions of the north aspect that curve to the north. The TopGolf net would force birds to fly through a very narrow passage between the net and the hotel, thereby increasing collision risk. The ground floor would include extensive glass panes at just about the right distance from proposed landscaping to enable birds to reach lethal speeds before they hit those windows.

WRA offers recommendations for treating windows to make them safer to birds, but I am concerned that the TopGolf project was offered similar recommendations by Harvey & Associates (2016) to improve the safety of its net, which had not been followed by the time of this writing.

Overall, WRA's analysis of potential impacts caused by bird-window collisions was insufficiently informed, speculative in favor of minimalizing impacts, inconsistent in its logical flow from premise to conclusion, and too often irrelevant. Despite the arguments made by both WRA and the City (via the IS/MND), the location of the project within a known wildlife movement corridor, the large extent of its windows, the IS/MND's renderings of the windows as reflective on the upper floors and transparent on the bottom floor, the shape of the building that would funnel flying birds towards windows, and its location close to a 170-foot-tall net all point toward a high bird-window collision rate and a significant impact. A fair argument can be made for the need to prepare an EIR to more thoroughly and appropriately analyze potential impacts from bird-window collision injuries and mortality.

CUMULATIVE IMPACTS

The IS/MND argues that because impacts of the proposed project would be individually mitigated, and because "all projects are required to implement best management practices and comply with all federal, state, regional and local regulations," no significant cumulative impacts would result. With this argument, the IS/MND implies that cumulative impacts are really just residual impacts of incomplete mitigation of project-level impacts. If that was CEQA's standard, then cumulative effects analysis would be merely an analysis of mitigation efficacy. And if that was the standard, then I must point out that none of the project-level impacts would be offset to any degree by the proposed mitigation measures. The project's mitigation includes no avoidance measures and no compensatory measures. But anyway, the IS/MND's implied standard is not the standard of analysis of cumulative effects. CEQA defines cumulative impacts, and it outlines two general approaches for performing the analysis. Given that North American has lost nearly a third of its birds over the past half century (Rosenberg et al. 2019), an appropriate cumulative effects analysis is warranted. An EIR needs to be prepared, and it needs to include an appropriate, serious analysis of cumulative impacts. It needs to address cumulative impacts from habitat loss and habitat fragmentation, from bird-window collision mortality and from road mortality.

MITIGATION

MM BIO-1.2 Preconstruction Surveys for Nesting Birds

Preconstruction surveys should be performed, but not as a substitute for detection surveys. Preconstruction surveys are only intended as last-minute, one-time salvage and rescue operations targeting readily detectable nests or individuals before they are crushed under heavy construction machinery. Because most special-status species are rare and cryptic, and because most species are expert at hiding their nests lest they get predated, most of them will not be detected by preconstruction surveys. As a case in point, the reconnaissance-level surveys performed by WRA detected fewer than a third of the species I detected during one morning at the project site, and they detected none of the special-status species. A much more serious survey effort is needed in advance of the preconstruction surveys.

Detection surveys are also needed to inform preconstruction take-avoidance surveys by mapping out where biologists performing preconstruction surveys are most likely to find animals before the tractor blade finds them. Detection surveys were designed by species experts, often undergoing considerable deliberation and review before adoption. Detection surveys often require repeated efforts using methods known to maximize likelihoods of detection. Detection surveys are needed to assess impacts and to inform the formulation of appropriate mitigation measures, because preconstruction surveys are not intended for these roles either. What is missing from the IS/MND, and what is in greater need than preconstruction surveys, are detection surveys consistent with guidelines and protocols that wildlife ecologists have uniquely developed for use with

each special-status species. What is also missing is compensatory mitigation of unavoidable impacts.

Following detection surveys, preconstruction surveys should be performed. However, an EIR should be prepared, and it should detail how the results of preconstruction surveys would be reported. Without reporting the results, preconstruction surveys are vulnerable to serving as an empty gesture rather than a mitigation measure. For these reasons, this mitigation measure is insufficient to reduce the project's impacts to special-status species to less than significant.

MM BIO-1.3 Burrowing owl

The IS/MND claims "Although ground squirrels are not active on the site…" This is not what I saw at the site. Ground squirrels are present, and burrowing owls are known to occur in the area (see WRA 2020). Detection surveys for burrowing owl need to be performed to be consistent with CDFW (2012) guidelines. Performing a preconstruction survey without first having performed detection surveys would be inconsistent with CDFW's guidelines.

MM BIO-4.1 Bird-Window Collisions

The IS/MND promises to treat windows only on the south-facing aspect of the building and no more than 10% of the window area on the remaining facades. This measure is deficient because most of bird-window collision threat would occur on the north aspect of the building. The north aspect is where the greatest extent of windows would occur, and it is where the building would curve around northward to funnel bird traffic into windows, and it is where the TopGolf net would channel birds through a narrow gap between the unmarked net and the hotel's windows.

The IS/MND concludes that "With incorporation of MM BIO-4.1, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors…" But this measure does not mitigate impacts to wildlife movement. The building would still impede movement of migratory and resident wildlife, regardless of its windows and how they might be treated. The IS/MND conflates the issue of bird-window collisions with bird movement in the region.

MM BIO-6 Habitat Conservation Plan

The IS/MND concludes, "MM BIO-1.1 through 4.1 would ensure the project complies with Condition 1 of the Habitat Plan" [Santa Clara Valley Habitat Conservation Plan]. Condition 1 of the Habitat Plan is to avoid direct impacts on Legally Protected Plant and Wildlife Species. Consisting of preconstruction surveys and a few window treatments to slightly minimize impacts, MM BIO 1.1 through 4.1 clearly would not avoid direct impacts to special-status species. Avoidance means planning a project to avoid impacts by not causing the impacts in the first place; see the definition provided by CEQA

Guidelines. The IS/MND inaccurately characterizes avoidance, and therefore its conclusion of compliance with Condition 1 of the Habitat Plan is in error.

The IS/MND concludes, "The project would pay all applicable fees and implement mitigation measure MM BIO-1.2 to ensure compliance with Condition 15 of the Habitat Plan." In the case of burrowing owls, paying the fee to the Habitat Plan would not conserve the species. Burrowing owls are nearly extirpated from the Bay Area despite the Habitat Plan. I am aware of this because in 2017 I was one of four experts invited to advise the Santa Clara Valley Habitat Agency to avoid what all signs indicated to be an pending extirpation of burrowing owls from the south Bay Area. Only a few dozen breeding pairs remained. The principal pressure on the remaining owls was habitat loss due to ongoing and planned projects. The Habitat Plan had been unable to halt or to even slow the decline of burrowing owls while development and its takings of habitat raced onward. Simply paying a fee to the Habitat Plan would not mitigate the project's impacts to burrowing owl.

The IS/MND addresses Condition 17 of the Habitat Plan, which covers tricolored blackbirds. As noted earlier in my comments, the IS/MND inappropriately determines tricolored blackbirds to be absent from the site. The survey performed by WRA at the site was insufficient for supporting this determination, and it was performed at the wrong time of year for determining the presence of a breeding colony. Even if tricolored blackbirds were absent during the breeding season following WRA's December 2017 survey, in my decade of experience tracking the locations of tricolored blackbird breeding colonies in the Altamont Pass, I found that breeding colonies were spatially dynamic. Breeding colonies did not use the same sites in all years, but instead shifted from site to site. Absence one year is not permanent absence.

Neither a preconstruction survey for the timing of construction would avoid the ultimate taking of habitat needed for the continued survival of tricolored blackbirds in the south Bay. The project site composes one of the last conceivable patches of tricolored blackbird habitat in the region. A stronger mitigation plan is warranted.

The proposed mitigation measures are founded on inaccurate analyses of impacts, and they would prove deficient at conserving wildlife that would be affected by the project. At least a fair argument can be made for the need to prepare an EIR to appropriately formulate mitigation measures to conserve special-status species of wildlife and all nesting birds protected by stated and federal statutes.

RECOMMENDED MEASURES

Guidelines on Building Design

If the project goes forward, it should adhere much more comprehensively and more carefully to the available guidelines prepared by American Bird Conservancy and New York and San Francisco. The American Bird Conservancy (ABC) produced an excellent set of guidelines that recommend actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with

inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. The San Francisco Planning Department's (2011) building design guidelines are more comprehensive than those of New York City, but they could have gone further. For example, the San Francisco guidelines probably should have also covered scientific monitoring of impacts as well as compensatory mitigation for impacts that could not be avoided, minimized or reduced.

City of San Jose's (2014) guidelines ought to be improved to be more consistent with the guidelines cited above.

Monitoring and the use of compensatory mitigation should be incorporated at any new building project because the measures recommended in the available guidelines remain of uncertain efficacy, and even if these measures are effective, they will not reduce collision fatalities to zero. The only way to assess efficacy and to quantify post-construction fatalities is to monitor the project for fatalities.

Road Mortality

Compensatory mitigation is needed for the increased wildlife mortality that would be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries would likely be caused by bird-window collisions and animal-automobile collisions, but some would be injured for other reasons. Many of these animals would need treatment caused by collision injuries.

Thank you for your attention,

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Shawn Smallwood, Ph.D.

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Kenneth Shawn Smallwood
Curriculum Vitae

3108 Finch Street
Davis, CA 95616
Phone (530) 756-4598
Cell (530) 601-6857
puma@dcn.org

Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 477 professional publications, including:
- 81 peer reviewed publications
- 24 in non-reviewed proceedings
- 370 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results at meetings
- Reviewed many professional papers and reports
- Testified in 4 court cases.

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The

five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

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EXHIBIT B

IEE INDOOR ENVIRONMENTAL ENGINEERING IEE
1448 Pine Street, Suite 103 San Francisco, California 94109
Telephone: (415) 567-7700
E-mail: offermann@IEE-SF.com
http://www.iee-sf.com

Date: October 26, 2021

To: Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: Alviso Hotel Project, San Jose, CA.
(IEE File Reference: P-4489)

Pages: 18

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain

and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (BAAQMD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to the Alviso Hotel Project, San Jose, CA, the building consists of a hotel building.

The employees of the hotel building are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because the hotel will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the hotel employees work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day at the offices is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu g/m^2$-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 $\mu g/m^2$-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the

health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air

concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The Project is close to roads with moderate to high traffic (e.g., North 1st Street, Southbay Freeway, etc.).

According to the Initial Study/Mitigated Negative Declaration – Alviso Hotel Project (City of San Jose, 2021), the Project would include areas that "would be exposed to future exterior noise levels of approximately 65 dBA DNL.". However this assessment is not based on any on-site sound level measurements. An acoustic study should be conducted to determine the existing and future exterior noise levels.

As a result of the anticipated high outdoor noise levels, the current project will require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. According to Initial Study/Mitigated Negative Declaration – Alviso Hotel Project (City of San Jose, 2021), the Project is located in the San Francisco Bay Area Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should to be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour

standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality"* when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California

Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry,

could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e., Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

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Francis (Bud) J. Offermann PE CIH

President: Indoor Environmental Engineering,
San Francisco, CA. December, 1981 - present.
e-mail: offermann@iee-sf.com

Education

- M.S. Mechanical Engineering Stanford University, Stanford, CA.
- Graduate Studies in Air Pollution Monitoring and Control University of California, Berkeley, CA.
- B.S. in Mechanical Engineering Rensselaer Polytechnic Institute, Troy, N.Y.

Professional Affiliations

ACGIH, AIHA, ASHRAE, CSI, ASTM, ISIAQ, PARMA, and USGBC

Work Experience

Mr. Offermann PE, CIH, has 36 years experience as an IAQ researcher, technical author, and workshop instructor. He is president of Indoor Environmental Engineering, a San Francisco based IAQ R&D consulting firm. As president of Indoor Environmental Engineering, Mr. Offermann directs an interdisciplinary team of environmental scientists, chemists, and mechanical engineers in indoor air quality building investigations. Under Mr. Offermann's supervision, IEE has developed both pro-active and reactive IAQ measurement methods and diagnostic protocols. He has supervised over 2,000 IAQ investigations in commercial, residential, and institutional buildings and conducted numerous forensic investigations related to IAQ.

Litigation Experience

Mr. Offermann has been qualified numerous times in court as an expert in the field of indoor air quality and ventilation for both plaintiffs and defendants. He has been deposed over 150 times in cases involving indoor air quality/ventilation issues in commercial, residential, and institutional buildings involving construction defects, and/or operation and maintenance problems. Examples of indoor air quality cases he has worked on are alleged personal injury and/or property damages from mold and bacterial contamination/moisture intrusion, building renovation activities, insufficient outdoor air ventilation, off gassing of volatile organic compounds from building materials and coatings, malfunctioning gas heaters and carbon monoxide poisoning, and applications of pesticides. Mr. Offermann has testified with respect to the scientific admissability of expert testimony regarding indoor air quality issues via Daubert and Kelly-Frye motions.

EXHIBIT C

SWAPE 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

November 8, 2021

Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

Subject: Comments on the Alviso Hotel Project

Dear Mr. Flynn,

We have reviewed the October 2021 Initial Study/Mitigated Negative Declaration ("IS/MND") for the Alviso Hotel Project ("Project") located in the City of San Jose ("City"). The Project proposes to construct a 112,463-SF hotel, comprising of 214 rooms, and 234 parking spaces on the 6.23-acre site.

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

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 42).[1] 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. Once all of the values are inputted into the model, the Project's

[1] 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.

construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in The Estuary @ Terra Air Quality & Greenhouse Gas Assessment ("AQ & GHG Assessment") as Appendix A 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. As such, an EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Underestimated Land Use Size

According to the IS/MND:

> "The project proposes construction of an approximately 112,463-square foot, 214-room hotel in a five-story building" (p. 8).

As such, the models should have included 112,463-SF of hotel space. However, review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" and "Alviso Hotel, San Jose – 2030" models include only 108,702-SF of hotel land use (see excerpt below) (Appendix A, pp. 30, 77).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	43.00	Space	0.00	17,200.00	0
Unenclosed Parking with Elevator	192.00	Space	0.00	70,757.00	0
Hotel	215.00	Room	1.92	108,702.00	0
Other Asphalt Surfaces	22.97	1000sqft	0.00	22,973.00	0
Other Non-Asphalt Surfaces	187.79	1000sqft	4.31	187,792.00	0

As you can see in the excerpt above, the proposed hotel is underestimated by 3,761-SF.[2] This underestimation presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations. The square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts).[3] Thus, by underestimating the size of the proposed hotel, the models underestimate the Project's construction and operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model includes several changes to the default individual construction phase lengths (see excerpt below) (Appendix A, pp. 32).

[2] Calculated: 112,463-SF – 108,702-SF = 3,761-SF.

[3] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 28.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	230.00	142.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	85.00

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix A, pp. 53):

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Site Preparation	Site Preparation	2/1/2021	2/15/2021	5	11
2	Grading	Grading	2/15/2021	4/15/2021	5	44
3	Trenching	Trenching	4/15/2021	6/30/2021	5	55
4	Building Construction	Building Construction	7/1/2021	1/15/2022	5	142
5	Architectural Coating	Architectural Coating	1/15/2022	5/15/2022	5	85
6	Paving	Paving	5/15/2022	5/25/2022	5	8

As you can see in the excerpt above, the site preparation phase was increased by 10%, from the default value of 10 to 11 days; the grading phase was increased by 120%, from the default value of 20 to 44 days; the building construction phase was decreased by 38%, from the default value of 230 to 142 days; the architectural coating phase was increased by approximately 325%, from the default value of 20 to 85 days, and the paving phase was decreased by 60%, from the default value of 20 to 8 days. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[4] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Provided construction schedule 9/8/2020" (Appendix A, pp. 30). Furthermore, regarding the Project's anticipated construction schedule, the IS/MND states:

> "The construction schedule assumed that the project would be built over a period of approximately 15 months, or 343 construction workdays. The first full year of operation was assumed to be 2023" (p. 42).

However, these justifications remain insufficient. While the IS/MND indicates the total construction duration, the IS/MND fails to mention or justify the individual construction phase lengths. This is incorrect, as according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA." [5]

[4] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[5] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 12.

Here, as the IS/MND only justifies the total construction duration of 15 months, the IS/MND fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes.

These unsubstantiated changes present an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[6]

> *Demolition* involves removing buildings or structures.
>
> *Site Preparation* involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.
>
> *Grading* involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.
>
> *Building Construction* involves the construction of the foundation, structures and buildings.
>
> *Architectural Coating* involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.
>
> *Paving* involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

As such, by disproportionately altering the individual construction phase lengths without proper justification, the model may underestimate the peak daily emissions associated with some phases of construction. Thus, the model should not be relied upon to determine Project significance.

Underestimated Amount of Material Import

Regarding the amount of material import required for Project construction, the IS/MND states:

> "The project would not involve demolition since the project site is currently undeveloped. Grading of the site would import approximately 1,000 cubic yards of fill" (p. 13).

As such, the model should have included 1,000 cubic yards ("cy") of material import. However, review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model includes only 900 cy of material import (Appendix A, pp. 35, 82).

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialImported	0.00	900.00

As you can see from the excerpt above, the amount of material import required for Project construction is underestimated by 100 cy in the model.[7]

[6] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 31.

[7] Calculated: 1,000 cy – 900 cy = 100 cy.

This underestimation presents an issue, as material import is used to calculate emissions produced from material movement, including truck loading and unloading, and additional hauling truck trips.[8] Thus, by failing to include the full amount of material import required for Project construction, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Off-Road Construction Unit Amounts and Usage Hours

Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model includes several changes to the default off-road construction equipment unit amounts and usage hours (see excerpt below) (Appendix A, pp. 35-36, 82-83).

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.90
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	0.70
tblOffRoadEquipment	UsageHours	8.00	3.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	1.70
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	0.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[9] According to the "User Entered Comments and Non-Default Data" table, the justification provided for these changes is: "Provided construction equip & hours 9/8/2020" (Appendix A, pp. 31, 78). Furthermore, the IS/MND states:

[8] CalEEMod User's Guide, *available at:* http://www.caleemod.com/, p. 2, 34.
[9] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 13-14.

"The construction build-out scenario, including equipment list and schedule, were based on construction information provided by the project applicant" (p. 42).

However, these justifications remain insufficient, as the IS/MND and associated documents fail to provide the above-mentioned equipment list. As such, until additional information becomes available that substantiates the revised unit amounts and usage hours, we are unable to verify the changes included in the model are an accurate reflection of the alleged Applicant-provided equipment list.

These unsubstantiated reductions present an issue, as CalEEMod uses the off-road equipment input parameters to calculate the emissions associated with off-road construction equipment.[10] By including unsubstantiated changes to the default off-road construction equipment unit amounts and usage hours, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

Underestimated Hauling Trip Number

Review of the AQ & GHG Assessment demonstrates that construction-related mobile-source emissions are modeled outside of CalEEMod. Specifically, the AQ & GHG Assessment states:

"CARB EMission FACtors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks" (p. 8-9).

Furthermore, the AQ & GHG Assessment provides the following input parameters used for the EMFAC2017 model runs (p. 10):

Table 2. Construction Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	71.5% LDA 6.4% LDT1 22.1% LDT2	38.1% MHDT 61.9% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0 (Demo/Soil) 7.3 (Cement/Asphalt)	CalEEMod default distance with 5 Minute Truck Idle Time
Site Preparation	55	-	-	CalEEMod default worker trips
Grading	572	-	112	900-cy import. CalEEMod default worker trips
Trenching	520	-	-	CalEEMod default worker trips
Building Construction	24,282	9,514	200	Estimated 100 cement roundtrips. CalEEMod default worker and vendor trips
Architectural Coating	2,890	-	-	CalEEMod default worker trips
Paving	104	-	48	200-cy asphalt. CalEEMod default worker trips

Notes: [1] Based on 2021-2022 EMFAC2017 light-duty vehicle fleet mix for Santa Clara County.
[2] Includes grading trips estimated by CalEEMod based on amount of material to be removed.

[10] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 32.

As you can see in the excerpt above, the number of grading hauling trips (as estimated by CalEEMod defaults based on 900 cy of material import) was included in the EMFAC2017 model runs. However, as previously discussed, the model should have included 1,000 cy of material import. According to the CalEEMod User's Guide:

> "Haul trips are based on the amount of material that is demolished, imported or exported assuming a truck can handle 16 cubic yards of material."[11]

Therefore, CalEEMod calculates a default number of hauling trips based upon the amount of material import inputted into the model. Thus, as the amount of material import is underestimated, the number of hauling trips is underestimated in the model as well.

This underestimation presents an issue, as CalEEMod uses the number of hauling trips to estimate the construction-related emissions associated with on-road vehicles.[12] By including an underestimated hauling trip number required for grading, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

Unsubstantiated Change to Wastewater Treatment Percentages

Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" and "Alviso Hotel, San Jose – 2030" models include several changes to the default wastewater treatment system percentages (see excerpt below) (Appendix A, pp. 97).

Table Name	Column Name	Default Value	New Value
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

As you can see in the excerpt above, the models assume that the Project's wastewater would be treated 100% aerobically. As previously mentioned, the CalEEMod User's Guide requires any changes to model

[11] Calculation Details for CalEEMod, *available at*: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14

[12] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 34.

defaults be justified.[13] According to the "User Entered Comments and Non-Default Data" table, the justification provided for these changes is: "WWTP 100% aerobic" (Appendix A, pp. 31, 78). Furthermore, the IS/MND states:

> "The project area is currently served by a six-inch sanitary sewer pipe in North First Street Wastewater in the project's surrounding area is treated at the San José/Santa Clara Regional Wastewater Facility (the Facility) in Alviso" (p. 176).

However, these changes remain unsupported. Review of the San José-Santa Clara Regional Wastewater Facilities treatment process reveals the use of anaerobic bacteria in the digesters phase of treatment. [14] As such, the assumption that the Project's wastewater would be treated 100% aerobically is incorrect and overestimated within the models.

This inconsistency presents an issue, as each type of wastewater treatment system is associated with different GHG emission factors, which are used by CalEEMod to calculate the Project's total GHG emissions.[15] Thus, by including incorrect wastewater treatment system percentages, the models may underestimate the Project's GHG emissions and should not be relied upon to determine Project significance.

Incorrect Application of Tier 3 Mitigation

Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" model assumes that the Project's off-road construction equipment fleet would meet Tier 3 and Tier 4 Final emissions standards (see excerpt below) (Appendix A, pp. 31-32, 78-79).

[13] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 13-14.
[14] https://www.google.com/url?q=https://www.sanjoseca.gov/your-government/environment/water-utilities/regional-wastewater-facility/treatment-process&sa=D&source=docs&ust=1635443327123000&usg=AOvVaw3iBx5wItSPPUUcK4kJmjxv
[15] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 45.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[16] According to the "User Entered Comments and Non-Default Data" table, the justification provided for the inclusion of Tier 3 and Tier 4 Final mitigation is: "BMPs, Tier 3 mitigation" (Appendix A, pp. 31, 78). Furthermore, the IS/MND states:

> "Energy would not be wasted or used inefficiently by construction equipment, as the proposed project would include several measures to improve efficiency of the construction (e.g., limiting idling time or use U.S. EPA tiered equipment)" (p. 82).

However, the inclusion of Tier 3 and Tier 4 Final emissions standards remains unsupported for two reasons.

[16] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1, 13-14.

First, while the IS/MND states that the Project would include U.S. EPA tiered equipment as a measure to improve construction efficiency, the inclusion of tiered equipment is not mentioned elsewhere. Furthermore, the IS/MND fails to specify which tier of construction equipment the Project would allegedly use during construction. As such, we cannot verify the inclusion of Tier 3 and Tier 4 Final emissions standards.

Second, according to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "While not 'mitigation', a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact" (emphasis added).[17]

As you can see in the excerpts above, measures that are not formally included in the mitigation monitoring and reporting program ("MMRP") may be eliminated from the Project's design altogether. Thus, as the use of Tier 3 and Tier 4 Final construction equipment is not formally included as a mitigation measure, we cannot guarantee that the emission standards would be implemented, monitored, and enforced on the Project site. Thus, the model's assumption that the off-road construction equipment fleet would meet Tier 3 and Tier 4 emissions standards is incorrect.

Incorrect Application of Energy-Related Operational Mitigation Measure

Review of the CalEEMod output files demonstrates that the "Alviso Hotel, San Jose" and "Alviso Hotel, San Jose – 2030" models include the following energy-related mitigation measure (see excerpt below) (Appendix A, pp. 68, 100).

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[18] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this inclusion is:

> "SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on" (Appendix A, pp. 31, 78).

[17] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.
[18] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 13-14.

However, this justification remains insufficient, as the above-mentioned energy-related mitigation measure refers to renewable energy generation *on-site*.[19] As such, electricity from the grid is not applicable and the inclusion of the energy-related operational mitigation measure in the models is incorrect. By incorrectly including an operational mitigation measure, the models overestimate the reduction to the Project's operational emissions and should not be relied upon to determine Project significance.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND estimates that the maximum excess cancer risk posed to nearby, existing sensitive receptors as a result of Project construction would be 0.3 in one million, which would not exceed the BAAQMD significance threshold of 10 in one million (see excerpt below) (p. 47, Table 4.3-6).

Table 4.3-6: Construction Risk of Impacts at the Off-site Receptors

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impacts			
Project Construction	0.3 (infant)	<0.01	<0.01
BAAQMD Single-Source Threshold	**>10.0**	**>0.3**	**>1.0**
Exceed Threshold?	No	No	No
Mayne Elementary School Student Receptors			
Project Construction	0.1 (child)	<0.01	<0.01
BAAQMD Single-Source Threshold	**>10.0**	**>0.3**	**>1.0**
Exceeds Threshold?	No	No	No
Cumulative Sources			
SR 237	9.4	0.19	--
South Bay Development, LLC	<0.1	--	--
Verizon Wireless	0.3	--	--
Combined Sources	10.1 (infant)	<0.20	<0.01
BAAQMD Cumulative Significance Threshold	**>100**	**>0.8**	**>10.0**
Exceed Threshold?	No	No	No

Furthermore, regarding the health risk impacts associated with Project operation, the IS/MND states:

> "The project would generate some traffic consisting of light-duty vehicles. However, the number of net daily trips generated by the project would be small in relation to existing traffic volumes on surrounding roadways (i.e., 1,642 daily trips, see Section 4.17 Transportation) and emissions from automobile traffic generated by the project would be spread out over a broad geographical area and would not be localized. Project traffic was not considered a source of substantial TACs or PM2.5" (p. 44).

As demonstrated above, the IS/MND concludes that the Project would result in a less-than-significant operational health risk impact because Project-generated traffic would not result in significant toxic air

[19] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 58-59.

contaminant ("TAC") emissions. However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

First, by failing to prepare a quantified operational HRA, the Project is inconsistent with CEQA's requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. Despite the IS/MND's qualitative claim that daily trips generated by the project would be small in relation to existing traffic volumes, the Project's anticipated 1,642 average daily vehicle trips will generate additional exhaust emissions and expose nearby sensitive receptors to diesel particulate matter ("DPM") emissions regardless (p. 44). However, the IS/MND fails to evaluate the potential TACs associated with Project operation and the concentrations at which such pollutants would trigger adverse health effects. Thus, without making a reasonable effort to connect the Project's operational TAC emissions to the potential health risks posed to nearby receptors, the Project is inconsistent with CEQA's requirement to correlate the increase in TAC emissions with potential adverse impacts on human health.

Second, the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015, as referenced by the AQ & GHG Assessment (Appendix A, p. 2).[20] The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[21] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. This recommendation reflects the most recent state health risk policies, and as such, we recommend that an analysis of health risk impacts posed to nearby sensitive receptors from Project operation be included in an EIR for the Project.

Third, the BAAQMD requires projects within 1,000 feet of an existing sensitive receptor or source to evaluate the cancer risk associated with Project operation (see excerpt below):[22]

[20] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html

[21] "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. 8-6, 8-15

[22] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, 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.

Table 2-1 Air Quality CEQA Thresholds of Significance*		
Pollutant	**Construction-Related**	**Operational-Related**
Project-Level		
Risk and Hazards for new sources and receptors (Individual Project)*	Same as Operational Thresholds**	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor

Furthermore, the IS/MND indicates that "[t]he closest sensitive receptors to the site are the children at the Mayne Elementary School, approximately 680 feet to the north, and the single-family residences, approximately 1,000 feet north of the site" (p. 45). As such, pursuant to the BAAQMD, an analysis of the health risk posed to nearby, existing receptors from both Project operation should have been conducted.

Fourth, by claiming a less than significant impact without conducting a quantified operational HRA for nearby, existing sensitive receptors, the IS/MND fails to compare the excess health risk impact to the applicable BAAQMD threshold of 10 in one million.[23] Specifically, regarding the operational TAC emissions threshold, the BAAQMD states:

> "The Lead Agency shall determine whether operational-related TAC and $PM_{2.5}$ emissions generated as part of a proposed project siting a new source or receptor would expose existing or new receptors to levels that exceed BAAQMD's applicable Thresholds of Significance stated below:
>
> - Compliance with a qualified Community Risk Reduction Plan;
> - An excess cancer risk level of more than 10 in one million…"[24]

Thus, pursuant to CEQA and the BAAQMD, an analysis of the health risk posed to nearby, existing receptors from Project operation should have been conducted.

Fifth, while the IS/MND includes an HRA evaluating the health risk impacts to nearby, existing receptors as a result of Project construction, 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, as referenced by the AQ & GHG Assessment, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location"

[23] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.
[24] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at*: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 5-3.

(Appendix A, p. 2).[25] However, the IS/MND's HRA fails to sum each age bin to evaluate the total cancer risk over the course of the Project's total construction and operation. This is incorrect and thus, an updated analysis should quantify the entirety of the Project's construction and operational health risks and then sum them to compare to the BAAQMD threshold of 10 in one million, as referenced by the IS/MND (p. 39, Table 4.3-2).

Screening-Level Analysis Demonstrates Significant Impacts

In order to conduct our screening-level risk assessment, we relied upon AERSCREEN, a screening level air quality dispersion model.[26] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[27] and the California Air Pollution Control Officers Associated ("CAPCOA")[28] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's operational health risk impact to nearby sensitive receptors using the Project's annual PM_{10} exhaust estimates. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. Subtracting the 478-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.69 years, approximately. The IS/MND's annual CalEEMod output file indicates that operational activities will generate approximately 53 pounds of DPM per year throughout operation.[29] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project operation, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{53.4\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = 0.000768\ \boldsymbol{g/s}$$

Using this equation, we estimated an operational emission rate of 0.000768 g/s. Construction and operational activity was simulated as a 6.23-acre rectangular area source in AERSCREEN with approximate dimensions of 225 by 112 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an

[25] "Guidance Manual for preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 8-4
[26] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[27] OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[28] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.
[29] See Attachment A for calculations.

initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[30] According to the IS/MND, the nearest sensitive receptors are single-family residences located approximately 1,000 feet, or 305 meters, from the Project (p. 45). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.229 $\mu g/m^3$ DPM at approximately 300 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.0229 $\mu g/m^3$ for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as referenced by the AQ & GHG Assessment (Appendix A, p. 2). Consistent with the 478-day construction schedule utilized in the Project's CalEEMod output files, the annualized averaged concentration for operation was used for the latter 0.94 years of the infant stage of life (0 – 2 years), as well as the entire child (2 – 16 years) and adult (16 – 30 years) stages of life.

Consistent with the IS/MND's construction HRA, provided in the AQ & GHG Report, we used Age Sensitivity Factors ("ASFs") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution (Appendix A, pp. 26). When applying ASFs, the quantified cancer risk should be multiplied by a factor of ten during the infant (0 – 2 years) stage of life, and a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with the guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.[31] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home ("FAH") value of 0.85 for the infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[32] We also used a cancer potency factor of 1.1 $(mg/kg\text{-}day)^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

[30] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 4-36.

[31] SCAQMD (Jun 2015) Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act, p. 19, http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6;.

[32] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

The Maximally Exposed Individual at an Existing Residential Receptor							
Age Group	**Emissions Source**	**Duration** (years)	**Concentration** (ug/m3)	**Breathing Rate** (L/kg-day)	**Cancer Risk** (without ASFs*)	**ASF**	**Cancer Risk** (with ASFs*)
3rd Trimester	Construction	0.25	*	361	*	10	*
	Construction	*1.06*	*	*1090*	*		
	Operation	*0.94*	*0.0229*	*1090*	*3.01E-07*		
Infant (Age 0 - 2)	Total	2			3.01E-07	10	**3.01E-06**
Child (Age 2 - 16)	Operation	14	0.0229	572	1.99E-06	3	**5.97E-06**
Adult (Age 16 - 30)	Operation	14	0.0229	261	9.20E-07	1	**9.20E-07**
Lifetime		**30**			**3.21E-06**		**9.89E-06**

* Construction cancer risk calculated separately in the IS/MND.

As demonstrated in the table above, the excess cancer risks to infants, children, and adults at the MEIR located approximately 300 meters away, over the course of Project operation, are approximately 3.01, 5.97, and 0.92 in one million, respectively. The excess cancer risk associated with the Project operation over the course of a residential lifetime is approximately 9.89 in one million. When summing the Project's operational cancer risk, as estimated by SWAPE, with the IS/MND's construction-related cancer risk of 0.3 in one million, we estimate an excess cancer risk of approximately 10.19 in one million over the course of a residential lifetime (30 years) (p. 4.2-51, Table 4.2-14).[33] As such, the lifetime cancer risks exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [34] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, an EIR should be prepared and include updated, quantified air pollution model as well as an updated, quantified refined HRA which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

[33] Calculated: 9.89 in one million + 0.3 in one million = 10.19 in one million.
[34] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND relies upon the Project's consistency with the City's 2030 Greenhouse Gas Reduction Strategy ("GHGRS") in order to conclude that the Project would result in a less-than-significant greenhouse gas ("GHG") impact (p. 98-103, Table 4.8-1). However, review of the Greenhouse Gas Reduction Strategy Consistency Checklist ("Consistency Checklist"), provided as Appendix J to the IS/MND, reveals that the Project is inconsistent with numerous measures, including but not limited to those listed below:

City of San Jose 2030 Greenhouse Gas Reduction Strategy Compliance Checklist[35]	
Policies and Strategies	Consistency Discussion
2. Implementation of Green Building Measures ***MS-2.2:*** *Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.*	Here, the Consistency Checklist states: "The project includes installation of solar panels on the rooftop of the hotel building. The project applicant is committed to the project being compliant with all mandatory applicable state and local green building and energy codes" (Appendix J, p. 1). However, this response is insufficient for two reasons. First, by simply stating that the Project would comply "with all mandatory applicable state and local green building and energy codes," the Project commits to the bare minimum requirements. As such, the Consistency Checklist fails to demonstrate that the Project would encourage maximized use of on-site renewable energy for all new and existing buildings. Second, the use of on-site renewable energy is not included as a formal mitigation measure. This is incorrect, as according to the AEP *CEQA Portal Topic Paper* on mitigation measures: "While not "mitigation", a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact." [36] As you can see in the excerpt above, project design features

[35] "2030 Greenhouse Gas Reduction Strategy." City of San Jose, August 2020, *available at:* https://www.sanjoseca.gov/home/showpublisheddocument/63667/637347412207870000.
[36] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

	are not mitigation measures and may be eliminated from the Project's design. Here, as the IS/MND fails to require the Project to include solar panels on the rooftop of the hotel building, we cannot guarantee that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
2. Implementation of Green Building Measures ***MS-2.3:*** *Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.*	Here, the Consistency Checklist states: "The proposed project is located and designed to maximize sun exposure and reduce energy consumption. All building facades and hotel rooms include windows to maximize natural sunlight and reduce energy consumption for lighting and heating during winter months" (Appendix J, p. 1). However, this response is insufficient, as the IS/MND fails to mention any consideration of solar orientation in the Project Description. Furthermore, the IS/MND fails to indicate that the Project proposes to incorporate any actual design features to achieve this measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
2. Implementation of Green Building Measures ***MS-2.7:*** *Encourage the installation of solar panels or other clean energy power generation sources over parking areas.*	Here, the Consistency Checklist states: "The project would not include solar panels over the parking garage; however, solar panels would be installed on the rooftop of the hotel building" (Appendix J, p. 1). However, this response is insufficient. By stating that the Project would not include solar panels over the parking garage, the Consistency Checklist indicates that the Project is inconsistent with this measure. As such, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
2. Implementation of Green Building Measures ***MS-16.2:*** *Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.*	Here, the Consistency Checklist states: "The project applicant is committed to working with the city and the adjoining property owners towards supporting neighborhood-based distributed clean/ renewable energy generation when it becomes available in the area" (Appendix J, p. 2). However, this response is insufficient. Simply stating that the Project applicant would support neighborhood-based distributed clean/renewable energy generation fails to indicate any Project-specific measures that would encourage the promotion of this measure. Second, the Consistency Checklist states that the Project would promote neighborhood-based distributed clean/renewable energy "when it becomes available," but does not require it. As such, the Consistency Checklist fails to

	provide any evidence of concrete actions or measures proposed to satisfy this measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
3. Pedestrian, Bicycle & Transit Site Design Measures ***CD-2.1:*** *Promote the Circulation Goals and Policies in the Envision San Jose 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable and policies in the Circulation section of the Envision San Jose 2040 General Plan.* ***a)*** *Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.* ***b)*** *Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.* ***c)*** *Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.*	Here, the Consistency Checklist states: "The project includes an on-site connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and six short-term bicycle parking spaces. Bicycle access would be provided via North First Street, where Class II bike lanes currently exist along the project frontage. Upon entering the project site at the Bay Vista driveway, a two-way path is provided along the east side of Bay Vista Drive. The path continues through the project site and provides access to the Guadalupe River Trail. This path would help prevent vehicle-bicycle conflicts on the project site. Pedestrian access would be provided via this path also. Within the project site, sidewalks would provide hotel access to and from the parking garage and surface parking areas. The project would not substantially increase hazards due to bicycles or pedestrians entering and exiting the project site" (Appendix J, p. 2). However, this response is insufficient, as the Consistency Checklist fails to mention elements that increase driver awareness, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, reduced parking requirements, Transportation Demand Management strategies, de-coupled parking, or on-street parking that buffers pedestrians from vehicles. As such, the Project fails to demonstrate consistency with all aspects of this measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
3. Pedestrian, Bicycle & Transit Site Design Measures ***CD-2.5:*** *Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.*	Here, the Consistency Checklist states: "As discussed in Section 2.0, Project Information, the proposed project would include shaded parking in the lower levels of the parking structure, on-site bicycle parking, would plant 30 trees on-site and would include stormwater treatment measures consistent with City post construction requirements" (Appendix J, p. 3). However, this response is insufficient for two reasons. First, while the Consistency Checklist mentions shaded parking, on-site bicycle parking, planting trees, and

	stormwater treatment measures, these measures are not elaborated upon in Section 2.0 of the IS/MND. Second, as previously discussed, PDFs are not mitigation measures and may be eliminated from the Project's design. Here, the IS/MND fails to require any of the above-mentioned pedestrian, bicycle & transit site-design measures, we cannot guarantee that these measures would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's supposed consistency with this aspect of the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
3. Pedestrian, Bicycle & Transit Site Design Measures ***CD-3.2:*** *Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.*	Here, the Consistency Checklist states: "The project includes an on-site connection to the Guadalupe River Trail at the southern limits of the site and currently proposes 20 long-term and three short-term bicycle parking spaces. Within the project site, sidewalks would provide hotel access to and from the parking garage and surface parking areas" (Appendix J, p. 7). However, this response is insufficient, as the Project fails to demonstrate that it would accommodate significant anticipated future increases in bicycle and pedestrian activity. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
3. Pedestrian, Bicycle & Transit Site Design Measures ***TR-2.8:*** *Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.*	Here, the Consistency Checklist states: "The project would include 20 long-term and six short-term bicycle parking spaces" (Appendix J, p. 4). However, this response is insufficient. While the Consistency Checklist indicates that the Project would include bicycle parking, it fails to mention showers, connections to existing and planned facilities, expansions of existing facilities, new facilities, or contributing to the cost of improvements as required by the measure. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
3. Pedestrian, Bicycle & Transit Site Design Measures ***TR-7.1:*** *Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies, transit incentives and other measures.*	Here, the Consistency Checklist states: "The project would be required to implement a TDM program which would include measures to support reduced vehicle trips" (Appendix J, p. 4). However, this response is insufficient, as the IS/MND fails to mention or address a TDM program whatsoever. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
3. Pedestrian, Bicycle & Transit Site Design Measures ***TR-8.5:*** *Promote participation in car share programs to minimize the need for parking spaces in new and existing development.*	Here, the Consistency Checklist states: "The project would be required to implement a TDM program which may include a car share program" (Appendix J, p. 4).

	However, this response is insufficient, as the IS/MND fails to mention or address a TDM program whatsoever. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
4. Water Conservation and Urban Forestry Measures ***MS-3.1:*** *Require water-efficient landscaping, which conforms to the state's Model Water Efficient Landscape Ordinance (MWELO), for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.*	Here, the Consistency Checklist states: "The proposed project would include use of low water use plants and irrigation systems consistent with the State's MWELO requirements" (Appendix J, p. 4). However, this response is insufficient for two reasons. First, simply stating that the Project would include low water use plants and water-efficient irrigation systems does not provide substantial evidence that these measures would be implemented, monitored, and enforced on the Project site. Second, even though the Project demonstrates consistency with the State's Model Water Efficient Landscape Ordinance does not guarantee that the Project would include water-efficient landscaping, as required by the measure. As such, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
4. Water Conservation and Urban Forestry Measures ***MS-3.2:*** *Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.*	Here, the Consistency Checklist states: "The project would utilize recycled water for landscape irrigation" (Appendix J, p. 4). However, this response is insufficient. Simply stating that the Project would "utilize recycled water for landscape irrigation" does not provide substantial evidence that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
4. Water Conservation and Urban Forestry Measures ***MS-19.4:*** *Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.*	Here, the Consistency Checklist states: "The project would utilize recycled water for landscape irrigation" (Appendix J, p. 4). However, this response is insufficient. Simply stating that the Project would "utilize recycled water for landscape irrigation" does not provide substantial evidence that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
4. Water Conservation and Urban Forestry Measures ***MS-21.3:*** *Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore,*	Here, the Consistency Checklist states: "The proposed trees would have low water requirements and are suitable for San José's climate. The project would plant diverse species" (Appendix J, p. 5). However, this response is insufficient, as the IS/MND fails to mention or support the claim that the Project would incorporate trees that have low water requirements, and plant

consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.	diverse species. As a result, we cannot confirm that this measure would be implemented, monitored, and enforced on the Project site. Thus, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
4. Water Conservation and Urban Forestry Measures ***MS-26.1:*** *As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.*	Here, the Consistency Checklist states: "The project would be required to comply with the City's tree replacement policy and would result in 30 trees being planted." (Appendix J, p. 5). However, this response is insufficient. Simply stating that the Project would comply with the City's tree replacement policy does not provide substantial evidence that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
4. Water Conservation and Urban Forestry Measures ***ER-8.7:*** *Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.*	Here, the Consistency Checklist states: "The proposed project includes water-efficient landscaping that does not warrant use of irrigation such that rain barrels, cisterns, or water storage facilities would be necessary" (Appendix J, p. 5). However, this response is insufficient. Simply stating that the Project would include water-efficient landscaping does not excuse the installation of measures such as rain barrels, cisterns, or water storage facilities that would encourage stormwater reuse on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
Renewable Energy Development 1. *Install solar panels, solar hot water, or other clean energy power generation sources on development sites, or* 2. *Participate in community solar programs to support development of renewable energy in the community, or* 3. *Participate in San José Clean Energy at the Total Green level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project.* 4. *Supports Strategies: GHGRS #1, GHGRS #3*	Here, the Consistency Checklist states: "The project includes installation of solar panels on the rooftop of the hotel building" (Appendix J, p. 5). However, this response is insufficient, as the use of on-site renewable energy is not included as a mitigation measure. As previously discussed, PDFs are not mitigation measures and may be eliminated from the Project's design. Here, the IS/MND fails to require the Project to install solar panels on the rooftop of the hotel building, we cannot guarantee that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
Zero Waste Goal 5. *Provide space for organic waste (e.g., food scraps, yard waste) collection containers, and/or* 6. *Exceed the City's construction &*	Here, the Consistency Checklist states: "Organic waste containers will not be provided for the proposed hotel. However, the proposed project would meet the City's construction and demolition waste diversion requirements" (Appendix J, p. 6). However, this response is insufficient, as the IS/MND only

demolition waste diversion requirement.	claims that the Project would "meet the City's construction and demolition waste diversion requirements," not exceed, as the measure mandates. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
Caltrain Modernization 1. *For projects located within 1/2 mile of a Caltrain station, establish a program through which to provide project tenants and/or residents with free or reduced Caltrain passes; or* 2. *Develop a program that provides project tenants and/or residents with options to reduce their vehicle miles traveled (e.g., a TDM program), which could include transit passes, bike lockers and showers, or other strategies to reduce project related VMT.* 3. ***Supports Strategies: GHGRS #6***	Here, the Consistency Checklist states: "The project would be required to implement a TDM program which would include measures to support reduced vehicle trips" (Appendix J, p. 6). However, this justification is insufficient. While the Consistency Checklist mentions developing a TDM program, the IS/MND and associated documents fail to provide any evidence of concrete actions or proposed measures incorporating this strategy. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.
Water Conservation 1. *Install high-efficiency appliances/fixtures to reduce water use, and/or include water-sensitive landscape design, and/or* 2. *Provide access to reclaimed water for outdoor water use on the project site.*	Here, the Consistency Checklist states: "The proposed project would include high-efficiency fixtures to reduce water usage and would utilize recycled water for landscape irrigation." (Appendix J, p. 6). However, these responses are insufficient for two reasons. First, the IS/MND fails to mention or support the claim that the Project would "utilize recycled water for landscape irrigation." Second, as previously discussed, PDFs are not mitigation measures and may be eliminated from the Project's design. Here, the IS/MND fails to require "high-efficiency fixtures" or the use of "recycled water for landscape irrigation" through mitigation. As such, we cannot guarantee that this measure would be implemented, monitored, and enforced on the Project site. As a result, we are unable to verify the Project's consistency with the GHGRS, and the less-than-significant impact conclusion should not be relied upon.

As the above table indicates, the IS/MND fails to provide sufficient information and analysis to determine Project consistency with all of the measures required by the GHGRS. As a result, we cannot verify that the Project is consistent with the GHGRS, and the IS/MND's less-than-significant GHG impact conclusion should not be relied upon. We recommend that an EIR include further information and analysis demonstrating the Project's consistency with the GHGRS.

Design Features Should Be Included as Mitigation Measures

Our analysis demonstrates that the Project would result in potentially significant health risk and GHG impacts that should be mitigated further. We recommend that the IS/MND implement all project design features and regulatory compliance measures as formal mitigation measures. As a result, we could

guarantee that these measures would be implemented, monitored, and enforced on the Project site. Including formal mitigation measures by properly committing to their implementation would result in verifiable emissions reductions that may help reduce emissions to less-than-significant levels.

Disclaimer

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

Sincerely,

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

Paul E. Rosenfeld, Ph.D.

Attachment A: Health Risk Calculations
Attachment B: AERSCREEN Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul E. Rosenfeld CV

Operation	
Emission Rate	
Annual Emissions (tons/year)	0.0267
Daily Emissions (lbs/day)	0.14630137
Emission Rate (g/s)	0.000768082
Release Height (meters)	3
Total Acreage	6.23
Max Horizontal (meters)	224.55
Min Horizontal (meters)	112.28
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	1,028,000
Total Pounds of DPM	
Total DPM (lbs)	53.4

Start date and time 11/10/21 12:22:35

AERSCREEN 16216

Alviso Hotel Operation

Alviso Hotel Operation

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.768E-03 g/s	0.610E-02 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	224.55 meters	736.71 feet
Area Source Width:	112.28 meters	368.37 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	1028000	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2021.11.10_AlvisoHotel_Operation.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 11/10/21 12:24:34

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES    ********

               ***  NONE  ***

 ******************************************

  Running AERMOD

 Processing Spring

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0

    ********   WARNING MESSAGES    ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20


    ********   WARNING MESSAGES   ********
```

```
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

FLOWSECTOR   ended 11/10/21 12:24:46

REFINE       started 11/10/21 12:24:46

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********
```

*** NONE ***

REFINE ended 11/10/21 12:24:48

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 11/10/21 12:24:50

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	HT	REF TA	HT
0.77611E+00	1.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.83738E+00	25.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.88919E+00	50.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.94310E+00	75.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.98267E+00	100.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
* 0.10012E+01	113.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.93887E+00	125.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.61874E+00	150.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.47970E+00	175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.39918E+00	200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.33963E+00	225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.29397E+00	250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.25800E+00	275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.22904E+00	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.20531E+00	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.18561E+00	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.16899E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.15474E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.14252E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.13181E+00	450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.12248E+00	475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.11431E+00	500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.10696E+00	525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.10037E+00	550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.94468E-01	575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.89167E-01	600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0							

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.84381E-01 625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.80016E-01 650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.76006E-01 675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.72342E-01 700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.68983E-01 725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.65868E-01 750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.62994E-01 775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.60335E-01 800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.57869E-01 825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.55576E-01 850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.53421E-01 875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.51403E-01 900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.49515E-01 925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.47746E-01 950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.46086E-01 975.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.44524E-01 1000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.43054E-01 1025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.41667E-01 1050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.40357E-01 1075.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.39118E-01 1100.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37945E-01 1125.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36827E-01 1150.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35764E-01 1175.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34755E-01 1200.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33794E-01 1225.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32879E-01 1250.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32003E-01 1275.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31164E-01 1300.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30364E-01 1325.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29598E-01 1350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28866E-01 1375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28165E-01 1400.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27495E-01 1425.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26851E-01 1450.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26233E-01 1475.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25639E-01 1500.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25068E-01 1525.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24519E-01 1550.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23991E-01 1575.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23483E-01 1600.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22992E-01 1625.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22520E-01 1650.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22064E-01 1675.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21624E-01 1700.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21199E-01 1725.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20789E-01 1750.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20391E-01 1775.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20006E-01 1800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19635E-01 1825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19276E-01 1850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18927E-01 1875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18590E-01 1900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18264E-01 1925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17947E-01 1950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

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1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17639E-01    1975.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17341E-01    2000.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17051E-01    2025.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.16770E-01    2050.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.16496E-01    2075.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.16311E-01    2100.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.16049E-01    2125.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.15793E-01    2150.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.15545E-01    2175.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.15304E-01    2200.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.15069E-01    2225.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.14840E-01    2250.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.14617E-01    2275.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.14400E-01    2300.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.14188E-01    2325.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13982E-01    2350.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13781E-01    2375.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13584E-01    2400.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13393E-01    2425.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13206E-01    2450.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13024E-01    2475.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12846E-01    2500.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12672E-01    2525.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12502E-01    2550.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12336E-01    2575.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12174E-01    2600.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12016E-01    2625.00     0.00  0.0     Winter    0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.    6.0
```

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1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11861E-01    2650.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11709E-01    2675.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11561E-01    2700.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11416E-01    2725.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11274E-01    2750.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11135E-01    2775.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10999E-01    2800.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10866E-01    2825.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10736E-01    2850.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10608E-01    2875.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10483E-01    2900.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10361E-01    2925.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10241E-01    2950.00     0.00  0.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10123E-01    2975.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10008E-01    3000.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.98949E-02    3025.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.97840E-02    3050.00     0.00  5.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.96753E-02    3075.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.95687E-02    3100.00     0.00  5.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.94640E-02    3125.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.93614E-02    3150.00     0.00  5.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.92606E-02    3174.99     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.91617E-02    3199.99     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.90647E-02    3225.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.89693E-02    3250.00     0.00 10.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.88758E-02    3275.00     0.00 20.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.87839E-02    3300.00     0.00  5.0      Winter     0-360  10011001  -1.30  0.043 -9.000  0.020 -999.  21.     6.0
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1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.86936E-02 3325.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.86049E-02 3350.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.85178E-02 3375.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.84322E-02 3400.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.83481E-02 3425.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.82654E-02 3450.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.81841E-02 3475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.81042E-02 3500.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.80256E-02 3525.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.79484E-02 3550.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.78724E-02 3575.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.77977E-02 3600.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.77242E-02 3625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.76519E-02 3650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.75808E-02 3675.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.75107E-02 3700.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.74418E-02 3725.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.73740E-02 3750.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.73073E-02 3775.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.72416E-02 3800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.71769E-02 3825.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.71132E-02 3849.99 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.70505E-02 3875.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.69887E-02 3900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.69279E-02 3925.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.68679E-02 3950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.68089E-02 3975.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

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0.67507E-02 4000.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.66934E-02 4025.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.66370E-02 4050.00 0.00 30.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.65813E-02 4075.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.65265E-02 4100.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.64724E-02 4125.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.64191E-02 4149.99 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.63666E-02 4175.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.63148E-02 4200.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.62637E-02 4225.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.62134E-02 4250.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.61637E-02 4275.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.61147E-02 4300.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.60664E-02 4325.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.60188E-02 4350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.59718E-02 4375.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.59254E-02 4400.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.58796E-02 4425.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.58345E-02 4449.99 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.57460E-02 4500.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.56175E-02 4575.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.55758E-02 4600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.52604E-02 4800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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0.50786E-02 4924.99 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
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SWAPE 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

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

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Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

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

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

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

Comment Letter C

Desiree DeiRossi

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Tuesday, November 2, 2021 2:18 PM
To: Desiree DeiRossi
Subject: FW: comments in opposition to adopting the MND for the Alviso Hotel Project. File PD19-031

Hi Desiree,

Please find below a comment on the Alviso Hotel Project. Let me know if you need the Response to Comment template.

Thank you,

Maira

-----Original Message-----
From: Mark Espinoza [redacted]
Sent: Monday, November 1, 2021 3:35 PM
To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Subject: Re: comments in opposition to adopting the MND for the Alviso Hotel Project. File PD19-031

[You don't often get email from [redacted] Learn why this is important at http://aka.ms/LearnAboutSenderIdentification.]

[External Email]

Oganizacion Comunidad de Alviso

Rejects the IS/MND because it relies on inadequate information in regards to air quality, noise, traffic etc. Further this project violates CEQA's piecemealing rules and regulations. This project should have been studied in the original MND for the Topgolf project which would have triggered significant impacts if considered as a whole instead of piece by piece. We demand a full EIR to be generated so that the community can evaluate true impacts related to the entire project as one.

Thank You

Mark Espinoza
President OCA
[redacted]

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Comment Letter D

Desiree DeiRossi

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Thursday, November 4, 2021 1:43 PM
To: Desiree DeiRossi
Subject: FW: comments in opposition to adopting the MND for the Alviso Hotel Project. File PD19-031
Attachments: Response to Comments Template_01232019.docx; Oakland Rd Industrial Screencheck RTC Memo - Clean (9-30-2021).docx

Hi Desiree,

Please find attached the RTC template and a recent RTC example. I'm also including a follow-on comment from Mr. Espinoza below. The comment period ends November 10, so I will continue to forward others as they come in.

Thanks,

Maira

-----Original Message-----
From: Mark Espinoza [redacted]
Sent: Thursday, November 4, 2021 12:02 PM
To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Cc: [redacted]
Subject: Re: comments in opposition to adopting the MND for the Alviso Hotel Project. File PD19-031

[External Email]

Hi Maira

Per the Alviso Master Plan height restrictions apply here. Page 59, 60 gives details 45 feet tall buildings allow within the project site.

This project would go against the AMP policy.

Furthermore, the soil studies are inaccurate language like “may” or “likely” are really guess work instead of real current and accurate studies. For example asbestos samples taken on the site but unknown where they were taken. The entire project site is over 30 acres because of this the analysis are only guessing where previous samples were taken. The analysis fail to identify the two abandoned gas stations that operated in Alviso one shutting down after the 1983 flood.

I believe a full EIR report would be essential to provide more adequate impacts to the Alviso Community.

Please submit this in the public record for my additional comments and opposition to the IS/MND study.

Thank You
Mark Espinoza

OCA President

> On Nov 4, 2021, at 8:51 AM, Blanco, Maira <Maira.Blanco@sanjoseca.gov> wrote:
>
> Good morning Mark,
>
> Please find the Alviso Master Plan linked below.
>
>
https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.sanjoseca.gov%2Fhome%2Fshowpublisheddocument%2F16053%2F636681597543870000&data=04%7C01%7CMaira.Blanco%40sanjoseca.gov%7C27ba1fd448ca4a8691cd08d99fc5a07e%7C0fe33be061424f969b8d7817d5c26139%7C1%7C0%7C637716493431544822%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=S%2B9Tcx%2FhZEu2twgBDfZbdeLUQhPF9XKk2pvXDg3Vv2I%3D&reserved=0
>
> Thanks,
>
> Maira
>
> -----Original Message-----
> From: Mark Espinoza <esp_jkclaw@yahoo.com>
> Sent: Tuesday, November 2, 2021 2:25 PM
> To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
> Subject: Re: comments in opposition to adopting the MND for the Alviso Hotel Project. File PD19-031
>
> [You don't often get email from esp_jkclaw@yahoo.com. Learn why this is important at http://aka.ms/LearnAboutSenderIdentification.]
>
> [External Email]
>
>
>
> Thank you
>
>
>
>> On Nov 2, 2021, at 2:16 PM, Blanco, Maira <Maira.Blanco@sanjoseca.gov> wrote:
>>
>> Mark,
>>
>> Thanks for your email and comment. I will be working on a formal Response to Comment once the commenting period ends.
>>
>> Sincerely,
>>
>> Maira
>>
>> -----Original Message-----
>> From: Mark Espinoza <esp_jkclaw@yahoo.com>
>> Sent: Monday, November 1, 2021 3:35 PM
>> To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>

>> Subject: Re: comments in opposition to adopting the MND for the Alviso Hotel Project. File PD19-031
>>
>> [You don't often get email from [redacted] Learn why this is important at http://aka.ms/LearnAboutSenderIdentification.]
>>
>> [External Email]
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>>
>> Oganizacion Comunidad de Alviso
>>
>> Rejects the IS/MND because it relies on inadequate information in regards to air quality, noise, traffic etc. Further this project violates CEQA's piecemealing rules and regulations. This project should have been studied in the original MND for the Topgolf project which would have triggered significant impacts if considered as a whole instead of piece by piece. We demand a full EIR to be generated so that the community can evaluate true impacts related to the entire project as one.
>>
>> Thank You
>>
>> Mark Espinoza
>> President OCA
>>[redacted]
>>
>>
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Comment Letter E

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

October 14, 2021

Maira Blanco
City of San Jose
200 E Santa Clara St, 3rd Floor
San Jose, CA 95113

Ref: Gas and Electric Transmission and Distribution

Dear Maira Blanco,

Thank you for submitting the Alviso Hotel Project plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: https://www.usanorth811.org/images/pdfs/CA-LAW-2018.pdf

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch

wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line ‘kicker blocks’, storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E’s ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4’) in height at maturity may be planted within the easement area.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an “Impressed Current” cathodic protection system. Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E’s facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING."**

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 15 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

Comment Letter F

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

November 12, 2021

Maira Blanco
City of San Jose
200 E Santa Clara St, 3rd Floor
San Jose, CA 95113

Re: PD19-031
ASSESSOR'S PARCEL NO.: 015-48-006

Dear Maira:

Thank you for providing PG&E the opportunity to review your proposed plans for PD19-031 dated 10-14-2021. Our review indicates your proposed improvements do not appear to directly interfere with existing PG&E facilities or impact our easement rights.

Please note this is our preliminary review and PG&E reserves the right for additional future review as needed. This letter shall not in any way alter, modify, or terminate any provision of any existing easement rights. If there are subsequent modifications made to your design, we ask that you resubmit the plans to the email address listed below.

If you require PG&E gas or electrical service in the future, please continue to work with PG&E's Service Planning department: https://www.pge.com/cco/.

As a reminder, before any digging or excavation occurs, please contact Underground Service Alert (USA) by dialing 811 a minimum of 2 working days prior to commencing any work. This free and independent service will ensure that all existing underground utilities are identified and marked on-site.

If you have any questions regarding our response, please contact the PG&E Plan Review Team at (877) 259-8314 or pgeplanreview@pge.com.

Sincerely,

PG&E Plan Review Team
Land Management

Comment Letter G

Desiree DeiRossi

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Monday, November 8, 2021 4:03 PM
To: Desiree DeiRossi
Subject: FW: Alviso Hotel Project (PD19-031)
Attachments: Comment on Alviso hotel.pdf

Hi Desiree,

Please find attached comments from Robin.

Thank you,

Maira

From: Robin Roemer [redacted]
Sent: Sunday, November 7, 2021 9:42 AM
To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Subject: Alviso Hotel Project (PD19-031)

Hi Maira,

please see attached my comments to the IS/MND for this project.

Thank you,

Robin

Comment on IS/MND for Alviso Hotel Project - File Number: PD19-031

The IS/MND incorrectly screens the project from detailed VMT analysis required by CEQA and the City of San José's Transportation Analysis Handbook

As the transportation analysis itself notes: "The City's screening criteria for VMT screening criteria does not provide a metric to be used for a hotel or similar lodging-related land use."

The study than tries to work around the issue by postulating that for VMT screening purposes a hotel land use would be similar to a local serving retail operation generating an equivalent number of daily trips.

Yet, the study presents no substantial evidence to support conclusion, quite on the contrary, the few arguments presented are speculative at best, do not hold up under scrutiny or lead to actually different conclusions.

False Argument #1: "Based on conversations with City Staff, it was determined that for VMT screening purposes the conversion of the hotel trip estimates to equivalent shopping center trip estimates would be appropriate to determine the size of a comparable retail site."

This paragraph is conclusory in nature and does not present substantial evidence.

False Argument #2: "The Project is not expected to have an increase on overall VMT within the City."

This is again conclusory. Without an actual VMT analysis it cannot be said if the project would increase overall VMT or not.

False Argument #3: "It will likely shorten existing trips currently occurring to other similar uses, thereby reducing overall VMT."

This statement is speculative and incorrect. The project site is on the outskirts of the city. Travelers lodging at the hotel site will have to drive all the way out there from an airport such as SFO or SJC, will then return to the city/office areas to attend meetings and return to the airport. Therefore, hotels that are located in between the airport and the travel destination/office would shorten trips, projects such as the proposed that are out of the way of the regular travel path will likely lengthen trips.

False Argument #4: "Similar to the characteristics of a "local serving retail" land use, the hotel has less potential to generate new trips or VMT; it is more likely rather to divert trips from an existing use, because this new development is in some way more attractive in its location, setting, or otherwise to the traveler."

The statement is again speculative and incorrect. It assumes that the lodging market is oversupplied and that additional lodging capacity would not serve new demand. There is no substantial evidence that this

is the case in the Silicon Valley lodging market, quite on the contrary there is an undersupply of lodging capacity and an increase in travel is expected by studies for the City, the airport and presumably the investor of this very project.

Argument #5: "In the case of the proposed Project, the hotel would attract existing hotel trips from the surrounding office developments."

This statement suggests that the hotel would be a land-use supporting office use. A good argument could be made that the hotel is therefore a land-use similar to an office.

Conclusion

The analysis presents no valid argument and most certainly no substantial evidence that local-servicing retail and hotel use are comparable land uses for a CEQA VMT analysis.

Quite on the contrary, there are significant differences between local servicing retail and hotel land uses:

- Retail is serving mostly local residents while hotels serve long-distance travelers
- Retail has a high trip generation rate of 37.75 trips per 1000SF, hotels have a low trip generation rate of 8.36 per 1000SF. This is easily understandable as retail generally frequented for only short amount of times (~1h) while hotels typically have much longer stays (~8h). Nowhere does the study indicate that the hotel would rent rooms by the hour which then might indicate a land use similar to retail.

Also, the hotel land-use could be compared to a residential development as that the land use mostly closely resembling it functionally. This seems to be what the City of San José has done in other projects

Additional Land Use Categories

Lead agencies can determine thresholds of significance for additional land use categories that are not listed in Figure 1, by creating a significance threshold using more location-specific information. For example, San José created two separate "employment" land use thresholds, one for office (general employment) and one for industrial employment. For other uses, San José's policy states that the project should use a threshold is in accordance with the most appropriate type(s) determined by Public Works Director. In practice, the City creates a methodology to convert the project into its most similar land use. For example, a hotel would be converted into an equivalent residential project using a formula that takes local context into account and then the projects VMT would be analyzed using residential per capita VMT. For projects where the methodology is

challenged, the City uses a trip cap to condition the development to ensure the mitigations are effective at reducing VMT.

It should be noted that the project applicant (and to some degree the city) has a vested interest in an analysis that shows the hotel exempt from detailed VMT analysis as such a detailed analysis based on for example comparing the project to an office or residential use would most likely show that the project would have an unmitigable impact.

In conclusion, the VMT analysis is speculative and there is no substantial evidence to support it.

Further analysis and recirculation of the CEQA analysis is required.

Comment Letter H

Desiree DeiRossi

From: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Sent: Wednesday, November 10, 2021 5:01 PM
To: Desiree DeiRossi
Subject: FW: Environmental Group Public Comment on IS/MND for Alviso Hotel Project (PD19-031)
Attachments: Joint Comment Alviso Hotel Project PD19-031.pdf

Another comment on the Alviso Hotel document.

Thanks,

Maira

From: Giulianna Pendleton <[redacted]
Sent: Wednesday, November 10, 2021 4:42 PM
To: Blanco, Maira <Maira.Blanco@sanjoseca.gov>
Cc: Keyon, David <david.keyon@sanjoseca.gov>; [redacted]
Subject: Environmental Group Public Comment on IS/MND for Alviso Hotel Project (PD19-031)

Hello Ms. Blanco,

Please find the attached public comment from Santa Clara Valley Audubon Society, Citizens Committee to Complete the Refuge, and Green Foothills regarding the IS/MND for the Alviso Hotel Project (PD19-031).

Thank you,

Giulianna Pendleton

Environmental Advocacy Assistant
Santa Clara Valley Audubon Society
[redacted]

Maira Blanco
Environmental Project Manager
Maira.Blanco@sanjoseca.gov

November 10, 2021 *via email*

Re: ALVISO HOTEL PROJECT (PD19-031)

The Santa Clara Valley Audubon Society, Citizens Committee to Complete the Refuge, and Green Foothills submit the following comments on the Initial Study and Mitigated Negative Declaration (IS/MND) for the Alviso Hotel Project (PD19-031), a Planned Development (PD) Permit to allow the construction of an approximately 112,463-square foot, 214-room hotel in a five-story building. The northeast and northwest sections of the site would include surface parking with 21 parking spaces, and a four-story parking garage with 213 spaces, for a total of 234 parking spaces. The project is located at an undeveloped approximately 6.23-acre lot located south of North First Street and north of Highway 237 in the Alviso area of San José. Here are our concerns:

1) Segmentation of CEQA review

During the CEQA review for the previous Project on the same property (Topgolf@Terra Project, File NO PDC16-013[1]), Comment G-21 on the IS/MND was submitted by several environmental groups. The comment focused on the loss of open space on the project site, especially loss of foraging habitat for burrowing owls. The comment suggested potential mitigation for this loss, including leaving one-third of the 36-acre property in open space or preserving alternate open space in the Alviso area, with management of that area designed to maximize benefits to rare plants, wetlands, and burrowing owls, as well as for the more common species found in the Alviso area.

[1] https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/negative-declaration-initial-studies/topgolf-terra-project

Response G-21 to this comment stated, "A 5.8-acre undeveloped area at the far eastern end of the site would remain undeveloped with the proposed project". The response states that the only open space loss is related to a "*three-acre area on the far western end of the site that is currently undeveloped and consists of ruderal grassland that would be developed as part of the project. This area consists of a vacant lot that has been fenced off and is regularly disturbed with disking. It is surrounded on all sides by urban development.*" The 3 acres were not considered valuable habitat for any special-status species, but there was no similar statement regarding the 5.8 acres that were expected to remain open space. This response allowed the Topgolf@Terra Project MND to find no significant impacts related to the loss of open space.

The 5.8 acres are now proposed to be developed. At this time, the Topgolf facility and its parking have been developed. The 110,000 square feet of commercial/retail space and 200 room hotel have not been developed.

In the MND for the Topgolf@Terra Project, the conceptual site map shows the 5.8 acres as "Not Part of Improvements[2]", but the Amendment to the Alviso Master Plan (and thus, to the Envision 2040 General Plan) included this area in allowing taller maximum allowable building and other structure heights[3].

Thus, it seems that a fully developed site, with two hotels, has been foreseeable all along.

> CEQA forbids 'piecemeal' review of the significant environmental impacts of a project. (Berkeley Keep Jets Over the Bay Com. v. Board of Port Commissioners (2001) 91 Cal App.4th 1344, 1358; and Laurel Heights I, supra, 47 Cal.3d at 396 ["Laurel Heights I"]; and Guidelines § 15165). When a specific project contemplates future expansion, the lead agency is required to review all phases of the project. (Laurel Heights I, supra, 47 Cal .3d at 376; see also Banning Ranch Conservancy v. City of Newport Beach (2012) 211 Ca1App.4th 1209, 1224 [improper piecemealing occurs when "the purpose of the reviewed project is to be the first step toward future development"]).

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[2] https://www.sanjoseca.gov/home/showpublisheddocument/27827/637145324863900000, *Conceptual Site Plan Figure 3.0-1*

[3] Alviso Master Plan Amendment: Page 55: Village Area Guidelines for Commercial Development, Section 5 Development Standards, Subsection A. Height: 40 feet, 2 stories above flood elevation.
For properties on the west side of North First Street between Liberty and Tony P. Santos Streets, the maximum allowable building height shall not exceed 65 feet, 5 stories above flood elevation. Non-building structural uses, including structures on top of or attached to buildings, such as but not limited to, energy saving devices, wireless communication antennae, net poles, and other associated structures through the development project review shall establish a specific height, not to exceed the maximum allowable height of 170 feet on sites with non-residential or non-urban land use designations.

This requirement reflects CEQA's broad definition of "project" as "the whole of an action" that may impact the environment. (Guidelines § 15378; and see Habitat & Watershed Caretakers v. City of Santa Cruz (2013) 213 CalApp.4th 1277, 1297). What constitutes the "whole of an action" is a question of law that courts independently decide. (Tuolumne County Citizens for Responsible Growth, Inc. v City of Sonora (2007) 155 Cal App.4th 1214, 1224. "[T]he requirements of CEQA cannot be avoided by chopping up proposed projects into bite-sized pieces which, when taken individually, may have no significant adverse effect on the environment." (Id. at 1222-1223 .)

In Laurel Heights I, supra, 47 Cal.3d 376, the Supreme Court explained that an agency must analyze the effects of potential future development if such development is: (1) "a reasonably foreseeable consequence of the initial project;" and (2) "will likely change the scope or nature of the initial project or its environmental effects." (Id. at 396.)

Analyzing only part of the full project for the Topgolf@Terra Project allowed the developer and the City to find no significant unmitigable impacts to open space and biological resources. This is especially concerning since the responses to comments allayed public concern by stating that this part of the property will remain undeveloped. Now, they seek to develop this remnant of the property. This is a clear example of unlawful segmentation of CEQA review. The proposed new project PD19-031 must prepare a full EIR and analyze the entire original property, including all lands that are currently undeveloped, to assess impacts to open space, biological resources and other environmental resources.

2) <u>Impacts to California species of special concern</u>

Six California species of special concern, the Western pond turtle (Actinemys marmorata), northern harrier (Circus cyaneus), burrowing owl (Athene cunicularia), loggerhead shrike (Lanius ludovicianus), San Francisco common yellowthroat, and Alameda song sparrow, may be present on the Project site, as well as the white-tailed kite, a fully protected species. Impacts to all these species should be discussed.

<u>Western pond turtle</u>

The remnant meander of the Guadalupe River which remains a wetland at the edge of the project may host Western pond turtles. The Project IS/MND mentioned the Western pond turtle only in a footnote as related to species covered by conditions of the Santa Clara Valley Habitat Plan HCP/NCCP (VHP) on page 66 of the IS) . The Biological report proposes that Western pond turtles are not likely to be found here because "*the Project Area lacks suitable stream and river*

habitat. Water features adjacent to the Project Area do not possess suitable substrates for basking or emergent vegetation for cover, and appear to have very poor water quality". However, turtles live a very long time. We believe that it is reasonable to expect that turtles may survive here given that a breeding population of Western pond turtles is present at Moffett Field and the brackish Moffett Channel (Nyhof 2013), three miles from the project site, which has some similar characteristics. A survey to determine presence of this species should be done prior to issuance of any grading or building permits, and the California Department of Fish and Game should be consulted if turtles are found.

Burrowing owls

MM BIO-1.3: The Project proposes to mitigate impacts to burrowing owls by complying with Condition 15 of the VHP and pay burrowing owl impact fees to the Santa Clara Valley Habitat Agency (Habitat Agency). Preconstruction surveys are also required. We maintain that additional measures are required to mitigate significant and unavoidable impacts to the species and its persistence in the South Bay.

Southern Santa Clara County, where the Project is proposed, is widely recognized as the last strong-hold of nesting burrowing owls in Santa Clara County (Albion Environmental, Inc. 2010). Burrowing owl numbers have declined significantly since the 1980s in this region (DeSante, et al. 2007). Loss of nesting and foraging habitat are key reasons for the decline (Trulio and Chromczak 2007). All of these birds are found in the grasslands at the edge of the Bay from Palo Alto to Milpitas and at the San Jose International Airport (Trulio and Chromczak 2007, Albion Environmental, Inc. 2007). Monitoring efforts by the Habitat Agency show that the burrowing owl population of Santa Clara County has declined by 60% since the implementation of the Habitat Plan in 2014, and the production of chicks has declined by more than 50%. The primary reason for the decline is the development and loss of habitat around core population areas.

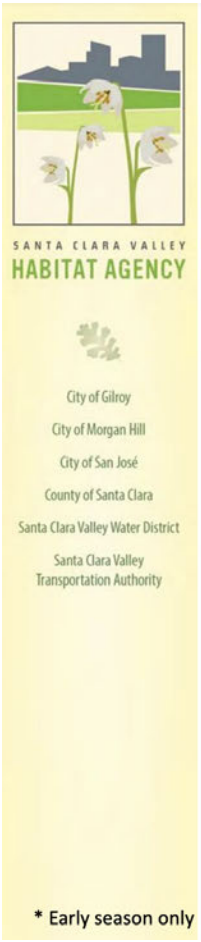
The Habitat Agency, which implements the Valley Habitat Plan, has been supporting studies and programs aimed to recover the burrowing owl population. These programs include overwintering of juveniles, captive breeding, controlled release and supplemental feeding. One of the core recovery areas is the San Jose / Santa Clara Regional Wastewater Facility (RWF), where young pairs of owls from captive overwintering and breeding programs are released to breed and produce offspring. With grants from the City of San Jose and the Habitat Agency, SCVAS staff has been engaged in habitat enhancements, monitoring owl populations, and breeding success at the RWF since 2013.

The Habitat Agency 2020 Burrowing Owl Breeding Season Survey Report[4] (Executive Summary, page 6) concluded, "*the goal of establishing a stable, then increasing owl population is not*

[4] https://www.scv-habitatagency.org/DocumentCenter/View/1387/SCVHA-BUOW-Report-2020_Dec-8

being met". The failure is, to a large extent, associated with the small number of remaining individuals, and "*pairs of burrowing owls in the South Bay were limited to only four breeding sites. This regional contraction in range exposes the breeding population to stochasticity and therefore a high risk of local extirpation,* ***especially because all these sites are facing increasing pressure from encroaching development. While burrow availability and foraging habitat have been reduced, the rate of disturbance and predation pressure has increased. Habitat protection and management at current breeding sites is imperative***" (Page 23, emphasis added).

The decline in this critical breeding population continues into 2021, despite the investment of hundreds of thousands of dollars in recovery efforts. The following table has been presented at the Santa Clara Valley Habitat Agency Fall Burrowing Owl Conservation Strategy Meeting (November 2021):



Location		2014	2015	2016	2017	2018	2019	2020	2021
San Jose International Airport	Number of Adults	35	18	12	8	10	4	9	4
	Number of Chicks	34	24	21	14	8	11	17	10
SJ/SC Regional Wastewater Facility	Number of Adults	16	22	25	34	18	12	6	12
	Number of Chicks	17	46	58	29	23	21	9	9
Shoreline	Number of Adults	8	6	4	5	4	2	16	11
	Number of Chicks	6	3	4	0	14	6	35	6
Don Edwards NWR – Warm Springs	Number of Adults	17	6	8	12	6	3*	0	0
	Number of Chicks	4	13	13	7	5-6	0	0	0
Moffett Airfield	Number of Adults	24	17	12	13	12	12	4	5
	Number of Chicks	20	11	12	13	30	8	5	7
Ohlone (Captive Breeding)	Number of Adults	-	-	-	-	-	-	-	4
	Number of Chicks	-	-	-	-	-	-	-	4
Other Locations	Number of Adults	16	5	--	2	--	0	0	0
	Number of Chicks	6	--	--	1	--	0	0	0
Total	Number of Adults	116	74	61	74	50	33	35	36
	Number of Chicks	87	97	108	64	80-81	46	66	36

These monitoring results show that the burrowing owl population in the South Bay is teetering on the edge of extirpation. In the nesting season of 2021, only 36 adult burrowing owls have been recorded in the South Bay. A third of the adult owls were found at the RWF.

From the standpoint of habitat quality, the proposed Project site has many features that make

it excellent foraging habitat for burrowing owls. It has almost no trees, a valuable quality both for burrowing owl nesting and foraging. The ruderal grassland and scrub vegetation are ideal habitats to support large insects and small rodents, which are key and important prey items for burrowing owls in general and in this region (Haug, et al. 1993, Higgins 2007).

The RWF is situated about half a mile to a mile from this Project site, well within the foraging range of birds from the RWF area (see home ranges in Haug et al., 1993). Thus, birds from the RWF site are likely to include the Project site in their foraging activities. The loss of the habitat on the Project site will thus exacerbate the decline in foraging habitat available to burrowing owls, and therefore the number of owls that may be supported in the area. Reduced open space and habitat results not only in reduced foraging areas, but also in increased predation pressure on burrowing owls at the RWF.

The synergistic impact of loss of foraging habitat and increased predation is hampering recovery efforts in Santa Clara County (Mr. Phillip Higgins, Santa Clara Valley Habitat Agency Fall Burrowing Owl Conservation Strategy Meeting, November 2021) and contributes to the failure of the Habitat Agency to achieve its goals.

We believe that at this critical time in the recovery efforts, the loss of about 6 acres of prime foraging habitat within a mile of the RWF breeding area will result in a significant loss of burrowing owl foraging habitat in the City of San Jose. Compounded by increasing predation and loss of individual owls at the RWF, this Project could ultimately affect the number of birds able to be supported in the area, especially at the RWF. Thus, the project has the potential to jeopardize recovery efforts. This impact should be considered a significant and unavoidable impact of the project. .

We believe that substantial evidence supports our fair argument that at this time, mitigation in the form of the payment to the Habitat Agency to maintain and improving habitat is important and should be required of this project, but payment will not reduce the impact of loss of habitat in Alviso to a less than significant level, and thus the finding of no significant impact after mitigation cannot be made. An EIR and Statement of Overriding Considerations after mitigation are needed.

We thank you for the opportunity to provide comments,

Shani Kleinhaus, Ph.D.
Environmental Advocate
Santa Clara Valley Audubon Society

Eileen McLaughlin
Board Member
Citizens Committee to Complete the Refuge

Alice Kaufman
Legislative Advocacy Director
Green Foothills

References Cited

Albion Environmental, Inc. 2010. Burrowing Owl population viability analysis, Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP). Prepared for County of Santa Clara HCP/NCCP Project Team.

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Haug, E.A., B.A. Millsap and M.S. Martell. 1993. *Burrowing Owl (Speotyto cunicularia).* The Birds of North America, No. 61 The American Ornithologists' Union Washington, D.C., USA, and the Academy of Natural Sciences, Philadelphia, Pennsylvania, USA.

Higgins, P.G. 2007. Prey base analysis of burrowing owls in urban Santa Clara County, California. M.S. Thesis. San Jose State University, San Jose, California, USA.

Nyhof, Paul Eric. 2013. "Basking Western Pond Turtle Response to Trail Use in Mountain View, California" Master's Theses. 4302. DOI: https://doi.org/10.31979/etd.kqtg-73xb https://scholarworks.sjsu.edu/etd_theses/4302

Trulio, L.A., and D.A. Chromczak. 2007. Burrowing owl nesting success at urban and parkland sites in Northern California. Bird Populations Monograph 1. Institute for Bird Populations. Point Reyes Station, CA.

Staff Report on Burrowing Owl Mitigation State of California Natural Resources Agency Department of Fish and Game March 7, 2012.

Attachment B: Supplemental Air Quality Analysis Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
429 East Cotati Avenue
Cotati, California 94931
Tel: 707-794-0400 *Fax: 707-794-0405*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

M E M O

Date: December 17, 2021

To: Désirée Dei Rossi
Associate Project Manager
David J. Powers & Associates, Inc.
1736 Franklin Street, Suite 400
Oakland, CA 94612
ddeirossi@davidjpowers.com

From: James Reyff
Casey Divine
Illingworth & Rodkin, Inc.
429 East Cotati Avenue
Cotati, CA 94931

RE: Alviso Hotel, San José, CA
I&R Job #19-189

SUBJECT: Response to Comments on Air Quality Made by Lozeau Drury LLP

This memo addresses comments regarding air quality for the Alviso Hotel / The Estuary @ Terra project in San José, CA made by Lozeau Drury LLP, dated November 8, 2021. Illingworth & Rodkin, Inc. (I&R) prepared the air quality and greenhouse gas (GHG) assessment[1] for this project and was asked by the applicant to respond to the air quality comments.

Claim I: Unsubstantiated Input Parameters Used to Estimate Project Emissions

The Commenter claims that changes to default settings in the CalEEMod model and application of construction and operational inputs and control measures result in underestimation of project emissions. The Commenter identifies specific changes that they believe are unsubstantiated.

Response:

A response to each change is provided as follows:

[1] Illingworth & Rodkin, Inc, *The Estuary @ Terra Air Quality & Greenhouse Gas Assessment,* October 2, 2020.

Underestimated Land Use Size

At the time of the air quality study, the project description (7/29/2020), traffic data (July 2020), construction data (9/8/2020), and site plans (10/30/2019) provided to I&R at the time of the air quality analysis were for a 215-room hotel that was 108,702 square feet. Both construction and operational criteria pollutant emissions and health risk impacts were computed as well below their respective thresholds. The project underwent some minor changes resulting in slightly higher floor space (about a 3.5% increase). This addition of 3,761-sf of hotel use would not increase traffic and have a negligible increase in emissions or health risk impacts and would not change the conclusion or recommended mitigation measures contained in the IS/MND. Note that the Commenter does not provide any evidence to the contrary.

Unsubstantiated Changes to Individual Construction Phase Lengths

As described in the air quality assessment (Attachment 2 of Appendix A to the IS/MND), specific construction information was provided and used in the modeling rather than relying on CalEEMod model default conditions. These changes were based on the construction information sheet provided by the applicant on 9/8/2020 that include the project construction dates and duration in terms of workdays for each construction phase. The construction schedule and equipment list represent project specific information that is deemed as substantial evidence, where use of default CalEEMod inputs would be inappropriate for this project. This information is contained in Attachment 2 of Appendix A to the IS/MND and does not need to be in the body of the report, as it was accurately captured in the CalEEMod modeling.

Unsubstantiated Amount of Material Import

The IS/MND stated that "grading of the site would import approximately 1,000 cubic yards of fill". The construction information sheet provided by the applicant on 9/8/2020 (see Attachment 2 of Appendix A to the IS/MND) included 900 cubic yards of imported soil during the grading phase. These are approximate amounts, as the project is undergoing preliminary design and engineering. While the IS/MND reported an approximate amount that is close to the reported amount of imported soil, the 900 cubic yard amount calculated in CalEEMod is appropriate. The difference in emissions associated with these differences is negligible as it represents only 0.1% of all truck trips generated by construction. Therefore, the construction-related emissions to as related to project material import was not underestimated. Again, the Commenter does not demonstrate that an additional 100 cubic yard of soil import would change the results of the assessment.

Unsubstantiated Changes to Off-Road Construction Unit Amounts and Usage Hours

The modeling inputs were project-specific, based on the construction information provided. This information includes the quantity of project construction equipment needed along with the estimated number of days and average hours of operations for days that equipment is used. This information is provided in Attachment 2 of Appendix A to the IS/MND and does not need to be in the body of the report, as it was accurately captured in the CalEEMod modeling.

Underestimated Hauling Trip Number

This comment was addressed above under *Unsubstantiated Amount of Material Import*. Both 1,000 cubic yards reported in the IS/MND and 900 cubic yards reported in Attachment 2 of Appendix A of the IS/MND are preliminary estimates. The difference of 100 cubic yards is negligible as it represents only 0.1% of all truck trips generated by construction. This would have no measurable effect on the results reported in the IS/MND.

Unsubstantiated Changes to Wastewater Treatment System

Wastewater treatment systems only cause indirect emissions of greenhouse gases and do not affect criteria air pollutant emissions. Default assignments of percentage of treatment type in CalEEMod reflect statewide averages and not conditions in San José. The CalEEMod model provides three options to enter for wastewater treatment: (1) through septic systems, (2) anerobic treatment, and (3) facultative lagoons. The Septic systems and facultative lagoons are aerobic treatment techniques that typically occur in rural areas and not in San José. The project plans, obviously, do not include this treatment type. Wastewater would be treated at a municipal wastewater treatment plant. Biosolids removed from the wastewater treatment would be processed using anerobic digesters, but the treatment plant would capture these emissions. As a result, the difference in emissions from operation of the project with and without this change is minor.

Incorrect Application of Tier 3 Mitigation

The CalEEMod modeling output provided in Attachment 2 of Appendix A includes both unmitigated and mitigated emission levels (i.e., mitigated with Tier 3 equipment). Only the unmitigated emission levels from the model output were used to describe air quality impacts in the IS/MND. Mitigation for this impact was not required so levels associated with Tier 3 mitigation were not applied to the project.

Improper Application of Energy-Related Operational Mitigation Measures

Reported energy GHG emissions in the IS/MND and Appendix A to the IS/MND are based on mitigated Operational emissions generated by CalEEMod and provided in Attachment 2 to Appendix A of the IS/MND. In order to account for SJCE's 100% carbon free renewable energy for projects operational after 2021, the modification had to be applied in the mitigated energy GHG emissions section. While the emissions in CalEEMod are reported as mitigation, they are not because the modifications to the CalEEMod model, shown as mitigation, are required by the City. In addition, the application of these mitigation measures does not change the conclusion of the significance finding for greenhouse gas emissions and climate change impacts. Additionally, since completion of the IS/MND, the City has adopted a new qualified GHG Reduction Strategy for 2030 and an accompanying project compliance checklist. The project is required to comply with the strategy and checklist to demonstrate less than significant GHG impacts. As such, the project has a less than significant impact with respect to GHG emissions.

Claim II: Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated.

The Commenter claims that by failing to prepare a quantified operational health risk assessment associated with diesel particulate matter health risk emissions, the IS/MND fails to evaluate the full Project health impacts.

Response:

The Commenter incorrectly asserts that diesel traffic produced by the proposed Project would cause significant health risks from traffic. In response to this claim about the project's traffic resulting in significant health risk impacts, the total project daily trips were modeled to further prove that the project's traffic does not pose a significant health risk. However, it should be noted, that per BAAQMD, roads with less than 10,000 total vehicles per day and less than 1,000 trucks per day are categorized as minor, low impact sources that do not pose a significant health impact even in combination with other nearby sources. This source can be excluded from the CEQA

evaluation.[2] The project would generate approximately 1,642 daily trips, which is well below the 10,000 daily vehicles per day threshold. Most of these trips would be made by light-duty automobiles (non-diesel vehicles) and these trips would be distributed among many roadways. Therefore, the Air Quality Analysis for the IS/MND complies with the BAAQMD's guidance.

To emphasize that there is no operational health impact as a result of the project, a project-specific refined dispersion model was completed to demonstrate that the project-caused cancer risks from operational traffic are negligible. This operational health risk assessment is consistent with OEHHA guidance and the results were compared against the BAAQMD threshold to show that there would be a less-than-significant health risk (see below).

A refined assessment of operational health risks that included dispersion modeling was conducted to evaluate the project operational risks from mobile sources. The modeling of project traffic on the main roadway (N. 1st Street) where all the project traffic would egress within 1,000 feet of the project site was conducted with the AERMOD dispersion model using line-area sources to represent the roadway near the project area (see Figure 1). A conservative analysis was conducted where all project traffic emissions from on- and near-site travel were assumed to occur along N. 1st Street. This roadway is closest to the nearby sensitive receptors. The modeling used a five-year data set (2013-2017) of hourly meteorological data from the San José International Airport that was prepared for use with the AERMOD model by BAAQMD. The same model and meteorological data used for the construction health risk assessment for the IS/MND air quality analysis were used for this modeling. TAC and $PM_{2.5}$ concentrations at the same sensitive receptors and MEI locations were calculated with AERMOD. The MEI is the maximum exposed individual or sensitive receptor with highest impact from the project.

Diesel particulate matter (DPM), organic TACs, and $PM_{2.5}$ emission rates were developed for traffic on N. 1st Street using the Caltrans version of the CARB EMFAC2017 emissions model, known as CT-EMFAC2017. The CT-EMFAC2017 model provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from re-entrained roadway dust were included. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (Santa Clara County), type of road (major/collector), truck percentage for non-state highways in Santa Clara County (3.51 percent),[3] traffic mix assigned by CT-EMFAC2017 for the county, year of analysis (2023 – project operational year), and season (annual). Travel speeds of 35 miles per hour (mph) for N. 1st Street, based on posted speed limit signs, were used for all period of the day.

Emission factors are dependent on the year, with higher rates for earlier years. Year 2023 emission

2 Bay Area Air Quality Management District, 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards.* May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

3 Bay Area Air Quality Management District, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

factors were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated (28 years) from the roadway traffic, since overall vehicle emissions, and in particular diesel truck emissions will decrease in the future.

Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[4] which were then applied to the project trips to obtain estimated hourly traffic volumes and emissions for the roadway. The roadway was modeled as line-area sources. Input emissions to the model were the combination of traffic volume and emission rates.

The residential and school child sensitive receptor with the highest modeled concentration were identified as the Maximum Exposed Individuals or MEIs. For cancer risk computations, project construction would occur for two years followed by operation for a total of 30 years. To calculate the increased cancer risk from project traffic, the risks were adjusted for exposure duration to account for the MEIs being exposed to Project construction for the first 2 years of the 30-year period, as reported in the IS/MND. The exposure duration from roadway traffic was adjusted for 28 years of exposure at the residential MEI and 4 years of exposure at the school MEI (note school receptors would only be present at the school for 6 years maximum).

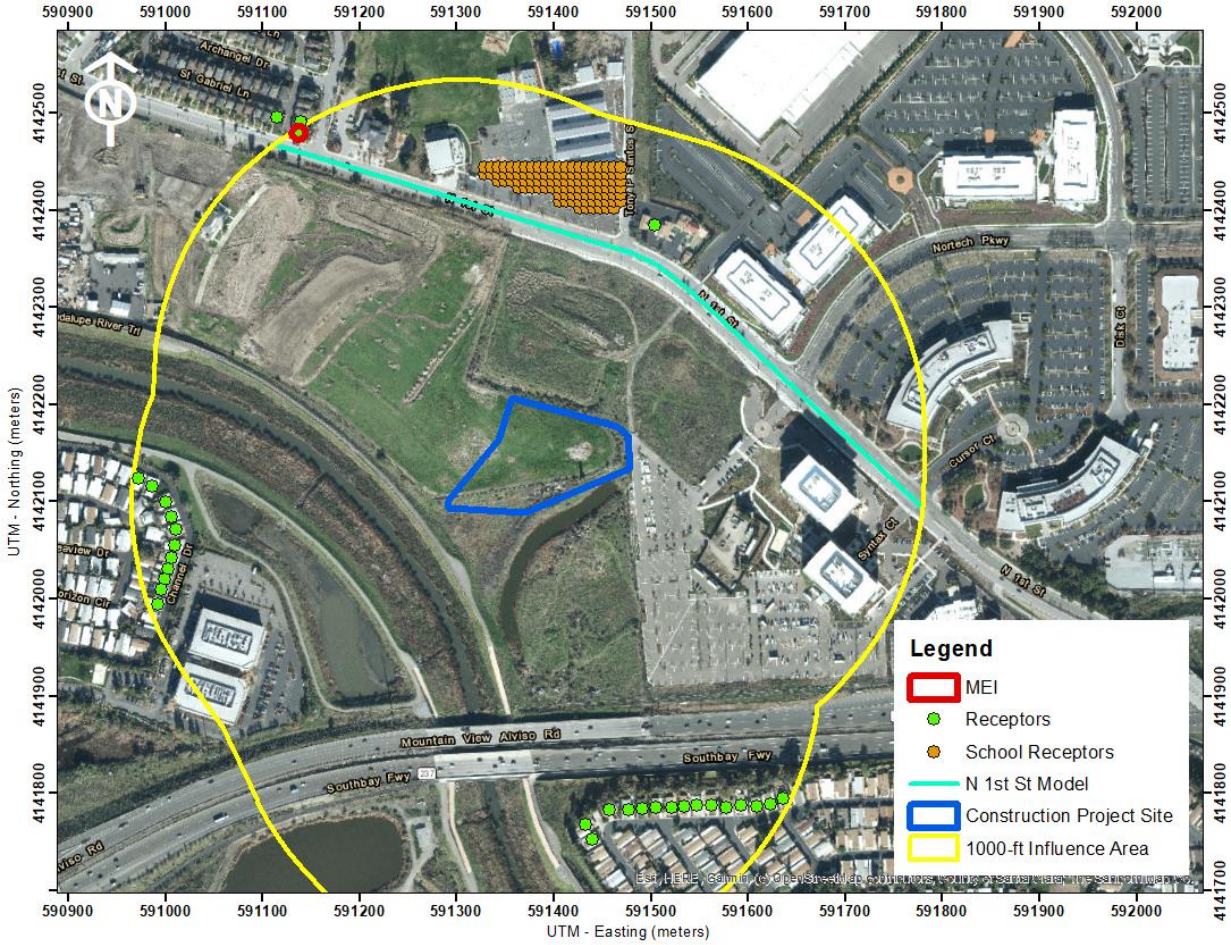
Results of this analysis are provided in Table 2. These results show the increased cancer risk to be negligible at the receptor most affected by the Project (i.e., the MEI). The project construction and operation increased cancer risks at the sensitive receptors were summed to demonstrate that the Project's increased cancer risk would not be significant with mitigation for construction. Note that the $PM_{2.5}$ concentration and hazard index value are not summed because they are based on an annual maximum level, which occurs during construction. As reported in the IS/MND, traffic generated by operation of the project would not contribute to significant health risks. Project traffic health risk modeling is provided as *Attachment 1* to this memo.

Table 2. Construction and Operation Risk Impacts at the MEI and School Receptors

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction (Years 0-2)	Unmitigated	0.3 (infant)	<0.01	<0.01
Project Traffic on N. 1st Street (Years 3-30)		0.1 (child)	0.02	<0.01
Total/Maximum Project Risks (Years 0-30)	Unmitigated	0.4	<0.03	<0.02
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*
Mayne Elementary School Student Receptors				
Project Construction (Years 0-2)	Unmitigated	0.1 (child)	<0.01	<0.01
Project Traffic on N. 1st Street (Years 3-6)		<0.1 (child)	0.01	<0.01
Total/Maximum Project Risks (Years 0-6)	Unmitigated	<0.2	<0.02	<0.02
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*

[4] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2014 does not include Burden type output with hour-by-hour traffic volume information.

Figure 1. Locations of Project Construction Site, Project Traffic Model, Off-Site Sensitive Receptors, and TAC Impacts



Claim III: Screening-Level Analysis Demonstrates Significant Impacts.

Response:

As demonstrated in response to Claim II, the health risk analysis that includes emissions and dispersion modeling using appropriate models recommended by BAAQMD show less than significant health risk impacts. The Commenter's incorrect assertion that Project risks would be significant relied on a screening level risk assessment performed by SWAPE. This screening level analysis is misleading and inaccurate.

First, SWAPE incorrectly assumes all emissions of PM_{10} exhaust from traffic is diesel particulate matter. This is not correct as most traffic associated with the Project would be powered by gasoline that does not produce diesel particulate matter. The CalEEMod modeling output provided in Attachment 2 of Appendix A of the IS/MND that the Commenter used to develop their diesel particulate matter emissions assumes that less than 5 percent of the traffic would be trucks. This incorrect assumption leads to a large error in estimating Project operational diesel particulate matter emissions.

The second error in the Commenter's analysis is that they assign all of these overestimated diesel particulate matter emissions to only the project site. This is incorrect because traffic emissions occur along the roadways where vehicles travel. According to the CalEEMod output in Attachment 2 of Appendix A of the IS/MND, travel distances are 7.30 to 9.50 miles. So, 98 percent of these emissions occur more than 1,000 feet from the project site and away from the nearby sensitive receptors.

Finally, the SWAPE analysis relied upon a screening model, AERSCREEN, to inflate these results rather than using the more accurate AERMOD model that is recommended by BAAQMD.[5] The AESCREEN model is a screening model that computes the maximum 1-hour concentration from a source and then applies a simple factor to estimate annual exposures. The model assumes that the source is continuous for every hour of the day for 365 days with adverse meteorological conditions that lead to conservatively high concentrations. AERSCREEN is a screening model that is recommended by U.S. EPA to identify the potential for impacts and not used to quantify significant impacts. If significant impacts are predicted using this model, then further analysis should be conducted. In addition, this model is inappropriate for modeling traffic sources.[6]

Claim IV: Failure to Adequately Evaluate Greenhouse Gas Impacts.

We assume this addresses GHG emissions from the hotel that the project would construct. Emissions were computed in the Air Quality Analysis. However, the analysis of project consistency with the City's 2030 Greenhouse Gas Reduction Strategy was addressed in the IS/MND and not the Air Quality Analysis.

[5] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

[6] According to the U.S. EPA (40 CFR Part 51, Appendix W – Guidelines on Air Quality Models), there are generally two levels of sophistication of air quality models. The first level consists of screening models that provide conservative modeled estimates of the air quality impact of a specific source or source category based on simplified assumptions of the model inputs (e.g., preset, worst-case meteorological conditions). If a screening model indicates that the increase in concentration attributable to the source could cause or exacerbate air quality conditions, then the second level of more sophisticated models should be applied unless appropriate controls or operational restrictions are implemented based on the screening modeling. AERSCREEN is a first-level screening model that is designed to provide a conservative (i.e., overestimate) of air pollutant impacts.

Attachment 1: Project Operation Dispersion Modeling Inputs and Risk Calculations

File Name: N 1st Street Alviso Hotel - Santa Clara (SF) - 2023 - Annual.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 12/15/2021 14:02
Area: Santa Clara (SF)
Analysis Year: 2023
Season: Annual

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.015	0.487	0.513
Truck 2	0.02	0.938	0.047
Non-Truck	0.965	0.014	0.958

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correction: CARB P = 64 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph
PM2.5	0.009229	0.005981	0.004054	0.002896	0.002194	0.001765	0.001511	0.001375
TOG	0.195764	0.127928	0.086105	0.061055	0.046181	0.036838	0.030861	0.027137
Diesel PM	0.000904	0.000732	0.000563	0.000446	0.000382	0.000353	0.00035	0.00037

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.35761

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002108

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.016808

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.014855

==========END==========

Alviso Hotel / The Estuary @ Terra, San Jose - Offsite Residential Roadway Modeling
Project Operation - N. 1st Street
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_1st	N. 1st Street	EB/WB	4	784.9	0.49	20.6	67.7	3.4	35	1,642	16,193	174,298	2.003E-10	1.477E-10	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00035			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and DPM Emissions - DPM_1st

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	64	3.04E-06	9	6.50%	107	5.06E-06	17	5.58%	92	4.34E-06
2	2.59%	42	2.01E-06	10	7.36%	121	5.73E-06	18	3.28%	54	2.55E-06
3	2.88%	47	2.24E-06	11	6.33%	104	4.92E-06	19	2.36%	39	1.84E-06
4	3.34%	55	2.60E-06	12	6.84%	112	5.33E-06	20	0.92%	15	7.16E-07
5	2.19%	36	1.70E-06	13	6.15%	101	4.79E-06	21	2.99%	49	2.33E-06
6	3.39%	56	2.64E-06	14	6.15%	101	4.79E-06	22	4.14%	68	3.22E-06
7	5.98%	98	4.66E-06	15	5.23%	86	4.07E-06	23	2.47%	41	1.93E-06
8	4.66%	76	3.63E-06	16	3.91%	64	3.04E-06	24	0.86%	14	6.72E-07
								Total		1,642	

Alviso Hotel / The Estuary @ Terra, San Jose - Offsite Residential Roadway Modeling
Project Operation - N. 1st Street
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_1st	N. 1st Street	EB/WB	4	784.9	0.49	20.6	68	1.3	35	1,642	16,193	174,298	8.649E-10	6.377E-10	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001511			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and PM2.5 Emissions - PM25_1st

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	19	3.87E-06	9	7.11%	117	2.39E-05	17	7.38%	121	2.48E-05
2	0.42%	7	1.40E-06	10	4.39%	72	1.48E-05	18	8.17%	134	2.75E-05
3	0.41%	7	1.37E-06	11	4.66%	77	1.57E-05	19	5.70%	94	1.91E-05
4	0.26%	4	8.85E-07	12	5.89%	97	1.98E-05	20	4.27%	70	1.44E-05
5	0.50%	8	1.68E-06	13	6.15%	101	2.07E-05	21	3.26%	54	1.10E-05
6	0.90%	15	3.04E-06	14	6.04%	99	2.03E-05	22	3.30%	54	1.11E-05
7	3.79%	62	1.27E-05	15	7.01%	115	2.36E-05	23	2.46%	40	8.27E-06
8	7.76%	127	2.61E-05	16	7.14%	117	2.40E-05	24	1.86%	31	6.27E-06
								Total		1,642	

Alviso Hotel / The Estuary @ Terra, San Jose - Offsite Residential Roadway Modeling
Project Operation - N. 1st Street
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_1st	N. 1st Street	EB/WB	4	784.9	0.49	20.6	68	1.3	35	1,642	16,193	174,298	1.766E-08	1.302E-08	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.03086			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_1st

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	19	7.91E-05	9	7.11%	117	4.88E-04	17	7.38%	121	5.07E-04
2	0.42%	7	2.87E-05	10	4.39%	72	3.02E-04	18	8.17%	134	5.61E-04
3	0.41%	7	2.80E-05	11	4.66%	77	3.20E-04	19	5.70%	94	3.91E-04
4	0.26%	4	1.81E-05	12	5.89%	97	4.04E-04	20	4.27%	70	2.93E-04
5	0.50%	8	3.44E-05	13	6.15%	101	4.22E-04	21	3.26%	54	2.24E-04
6	0.90%	15	6.21E-05	14	6.04%	99	4.14E-04	22	3.30%	54	2.26E-04
7	3.79%	62	2.60E-04	15	7.01%	115	4.81E-04	23	2.46%	40	1.69E-04
8	7.76%	127	5.33E-04	16	7.14%	117	4.90E-04	24	1.86%	31	1.28E-04
								Total		1,642	

Alviso Hotel / The Estuary @ Terra, San Jose - Offsite Residential Roadway Modeling
Project Operation - N. 1st Street
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_1st	N. 1st Street	EB/WB	4	784.9	0.49	20.6	68	1.3	35	1,642	16,193	174,298	2.220E-08	1.637E-08	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.35761			
Emissions per Vehicle per Mile (g/VMT)	0.03879			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_1st

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	19	9.94E-05	9	7.11%	117	6.14E-04	17	7.38%	121	6.37E-04
2	0.42%	7	3.60E-05	10	4.39%	72	3.79E-04	18	8.17%	134	7.05E-04
3	0.41%	7	3.52E-05	11	4.66%	77	4.02E-04	19	5.70%	94	4.92E-04
4	0.26%	4	2.27E-05	12	5.89%	97	5.08E-04	20	4.27%	70	3.69E-04
5	0.50%	8	4.32E-05	13	6.15%	101	5.31E-04	21	3.26%	54	2.81E-04
6	0.90%	15	7.80E-05	14	6.04%	99	5.21E-04	22	3.30%	54	2.85E-04
7	3.79%	62	3.27E-04	15	7.01%	115	6.05E-04	23	2.46%	40	2.12E-04
8	7.76%	127	6.70E-04	16	7.14%	117	6.16E-04	24	1.86%	31	1.61E-04
								Total		1,642	

Alviso Hotel / The Estuary @ Terra, San Jose - Offsite Residential Roadway Modeling
Project Operation - N. 1st Street
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2023**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_1st	N. 1st Street	EB/WB	4	784.9	0.49	20.6	68	1.3	35	1,642	16,193	174,298	1.933E-08	1.425E-08	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01486			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03377			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_1st

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	19	8.65E-05	9	7.11%	117	5.34E-04	17	7.38%	121	5.55E-04
2	0.42%	7	3.14E-05	10	4.39%	72	3.30E-04	18	8.17%	134	6.14E-04
3	0.41%	7	3.06E-05	11	4.66%	77	3.50E-04	19	5.70%	94	4.28E-04
4	0.26%	4	1.98E-05	12	5.89%	97	4.42E-04	20	4.27%	70	3.21E-04
5	0.50%	8	3.76E-05	13	6.15%	101	4.62E-04	21	3.26%	54	2.45E-04
6	0.90%	15	6.79E-05	14	6.04%	99	4.54E-04	22	3.30%	54	2.48E-04
7	3.79%	62	2.85E-04	15	7.01%	115	5.27E-04	23	2.46%	40	1.85E-04
8	7.76%	127	5.83E-04	16	7.14%	117	5.36E-04	24	1.86%	31	1.40E-04
								Total		1,642	

Alviso Hotel / The Estuary @ Terra, San Jose, CA - N. 1st Street Traffic - TACs & PM2.5 AERMOD Risk Modeling Parameters and Maximum Concentrations - Project Traffic at Residential MEI (1.5 m receptor heights)

Emission Year	2023
Receptor Information	Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	Residential MEI receptor

Meteorological Conditions	
BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Maximum Residential Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.00018	0.01767	0.02222

Maximum Residential PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.02021	0.01934	0.00087

Alviso Hotel / The Estuary @ Terra, San Jose, CA - N. 1st Street Cancer Risk & PM2.5
Impacts at MAX Residential- 1.5 meter receptor height (1st floor)
28 Year Residential Exposure - Project Traffic

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2021	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
1	1	0 - 1	2021	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
2	1	1 - 2	2022	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
3	1	2 - 3	2023	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
4	1	3 - 4	2024	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
5	1	4 - 5	2025	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
6	1	5 - 6	2026	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
7	1	6 - 7	2027	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
8	1	7 - 8	2028	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
9	1	8 - 9	2029	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
10	1	9 - 10	2030	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
11	1	10 - 11	2031	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
12	1	11 - 12	2032	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
13	1	12 - 13	2033	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
14	1	13 - 14	2034	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
15	1	14 - 15	2035	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
16	1	15 - 16	2036	3	0.0002	0.0177	0.0222	0.005	0.003	0.0002	0.01
17	1	16-17	2037	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
18	1	17-18	2038	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
19	1	18-19	2039	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
20	1	19-20	2040	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
21	1	20-21	2041	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
22	1	21-22	2042	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
23	1	22-23	2043	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
24	1	23-24	2044	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
25	1	24-25	2045	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
26	1	25-26	2046	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
27	1	26-27	2047	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
28	1	27-28	2048	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
29	1	28-29	2049	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
30	1	29-30	2050	1	0.0002	0.0177	0.0222	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.07	0.041	0.003	**0.12**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00004	0.02	0.02

* Third trimester of pregnancy

Alviso Hotel / The Estuary @ Terra, San Jose, CA - N. 1st Street Project Traffic - TACs & PM2.5
Maximum Cancer Risk and PM2.5 Concentration
AERMOD Risk Modeling Parameters and Maximum Concentrations
Impacts at Mayne Elementary School (K-5th Grades, 5 -11 years old), 4-Year Child Exposure - 1 m

Emissions Years	2023
Receptor Information	
Number of Receptors	1
Receptor Height =	1.0 meters
Receptor distances =	at MEI school site

Meteorological Conditions

BAAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

Emission Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2023	0.00020	0.01842	0.02316

Emission Years	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2023	0.0211	0.02016	0.0009

Maximum School Child PM2.5 Concentration (µg/m^3)* =	**0.01**

* Concentration adjusted for exposure duration at school

Alviso Hotel / The Estuary @ Terra, San Jose, CA - N. 1st Street Project Traffic Cancer Risk
Maximum MEI and Child Cancer Risk
Child Exposures (1.0 meter receptor heights)
Impacts at Mayne Elementary School (K-5th Grades, 5 -11 years old), 4-Year Child Exposure - 1 meter

Cancer Risk Calculation Method

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = School Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (ScHR/8 hrs)
SHR = Hours of emission source operation
SDay = Modeled number of days per week of source operaion
ScHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant	Child
Age -->	0 - <2	2 - <16
Parameter		
ASF	10	3
8-Hr BR* =	1200	520
ScHR** =	9.00	9.00
SHR =	24	24
SDay =	7	7
A =	1	1
EF =	250	250
AT =	70	70
SAF =	1.13	1.13

* 95th percentile 8-hr breathing rates for moderate intensity activities
** ScHR based on 9 hours school day

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information: Age Sensitivity Factor	Annual TAC Conc (ug/m3): DPM	Exhaust TOG	Evaporative TOG	Cancer Risk (per million): DPM	Exhaust TOG	Evaporative TOG	Total	Hazard Index
1 - Kin	2021	1	5 - 6	10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00004
2 - 1st	2022	1	6 - 7	10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3 - 2nd	2023	1	7 - 8	3	0.0002	0.0184	0.0232	0.0038	0.0020	0.0001	0.0059	
4 - 3rd	2024	1	8 - 9	3	0.0002	0.0184	0.0232	0.0038	0.0020	0.0001	0.0059	
5 - 4th	2025	1	9 - 10	3	0.0002	0.0184	0.0232	0.0038	0.0020	0.0001	0.0059	
6 - 5th	2026	1	10 - 11	3	0.0002	0.0184	0.0232	0.0038	0.0020	0.0001	0.0059	
Total Increased Cancer Risk								0.0151	0.0079	0.0006	**0.02**	