From:	Tom Conlon
To:	Claudette Diaz
Cc:	David Rabbitt; Susan Gorin; Chris Coursey; district4; Lynda Hopkins; Tennis Wick
Subject:	Re: PLP19-0009 - Data Request on Airport Hotel and Mitigated Negative Declaration
Date:	Friday, July 15, 2022 5:06:25 PM
Attachments:	image001.png image002.png image003.png image004.png GeoPraxis-Hyatt-MND-comments-(2022-07-15).pdf New-VMT-Analysis–Hyatt-Hotel-(v1.1).pdf

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EXTERNAL

Hi Claudette,
I have finally completed my comments on the Hyatt Wine Country Hotel MND.

I am happy to discuss what I believe to be some major shortcomings in the MND application with you, the applicant, or anyone else at your earliest convenience.

Thanks for your patience and for all you do for our county!
Sincerely,
- Tom

On Wed, Jul 13, 2022 at 2:12 PM Tom Conlon <editor@transitionsonomavalley.org> wrote:

> Hi Claudette,
> Thanks for the nudge and your patience. I too was out sick last week and now that I'm feeling better, I am back and working on my comments again.
> In fact, I spoke with the developer this morning, and he helped clear up a few questions.
> I plan to get my comments to you as soon as possible.
> Thanks Again!
> - Tom
>
> On Tue, Jul 12, 2022 at 5:03 PM Claudette Diaz <Claudette.Diaz@sonoma-county.org> wrote:
>
> > Good Afternoon, Tom,
> >
> > PLP19-0009 will be heard before the Board of Supervisors on July 19th, 1:30 pm.
> >
> > Thank you,
> >
> > Claudette Diaz
> >
> > ---
> >
> > **From:** Tom Conlon <editor@transitionsonomavalley.org>

Sent: Wednesday, June 01, 2022 11:57 AM
To: Claudette Diaz <Claudette.Diaz@sonoma-county.org>
Subject: Re: PLP19-0009 - Data Request on Airport Hotel and Mitigated Negative Declaration

Hi Claudette,

Thank you, this new link appears to take me to the documents that I was looking for. I won't know for sure until I dig in, which I intend to do soon.

I am assuming that I am the first person from the public to receive access to these technical documents under this "available upon request" process you described (i.e., that no ALUC or BZA commissioners, or other members of the public previously requested them).

If my assumption is incorrect, especially if one or more commissioners did already request access to any of these documents, please let me know who you believe did and when.

Thanks Again!

- Tom

PS - As I mentioned, I believe I already have the Cultural Resources study; as I recall it acknowledges that confidential information was evaluated, but excludes any of that from the published report (as is customary for this type of study).

On Tue, May 31, 2022 at 12:18 PM Claudette Diaz <Claudette.Diaz@sonoma-county.org> wrote:

> Hi Tom,
>
> The link didn’t work in the previous email. Please use this updated link: https://share.sonoma-county.org/link/gbHCTStLWSg/

Thank you,

Claudette Diaz

From: Claudette Diaz <>
Sent: Tuesday, May 31, 2022 12:15 PM
To: Tom Conlon <editor@transitionsonomavalley.org>
Subject: RE: PLP19-0009 - Data Request on Airport Hotel and Mitigated Negative Declaration

Hello Tom,

I apologize for the delay, I've been out sick. I'm happy to provide you with the studies you are referring to, however, the Cultural Resource study is confidential information.

The Planning Commission staff report states that these documents are on file at Permit Sonoma and available by request. You may find the materials you requested here.

Please let me know if you have any trouble downloading these files and if you have any comments or questions.

Thank you,

Claudette Diaz

Claudette Diaz

Planner II

www.PermitSonoma.org

County of Sonoma

Planning Division | Project Review

2550 Ventura Avenue, Santa Rosa, CA 95403

Direct: 707-565-7387 | Office: 707-565-1900

Access Permit Sonoma's extensive online services at www.PermitSonoma.org

Permit Sonoma's public lobby is open Monday, Tuesday, Thursday, Friday from 8:00 AM to 4:00 PM, and Wednesday from 10:30 AM to 4:00 PM.

From: Tom Conlon <editor@transitionsonomavalley.org>
Sent: Wednesday, May 25, 2022 2:52 PM
To: Claudette Diaz <Claudette.Diaz@sonoma-county.org>
Subject: PLP19-0009 - Data Request on Airport Hotel and Mitigated Negative Declaration

EXTERNAL

Dear Ms. Diaz,

I am hoping you can help me. I am trying to locate several references I found cited in the IS/MND for project PLP19-0009 which I can't seem to find in the public record for the Board of Zoning Adjustments (BZA), which took an action on this project in a meeting on 3/10/2022:

https://permitsonoma.org/boardofzoningadjustmentsmeetingmarch102022

- AECOM, "Technical Report for the Proposed Hyatt Place Hotel Air Quality and Greenhouse Gas Emissions." July 2021.
- WRA Environmental Consultants. "Biological Assessment, Landmark Hotels, Inc., Hyatt Place Sonoma Wine County (sic) Project, Santa Rosa, Sonoma County, California," May 2020.
- WRA Environmental Consultants. "Biological Resources Technical Report, Landmark Hotel Group, Hyatt Hotel Project, Santa Rosa, Sonoma County, California," August 2019.
- Tom Origer and Associates. "A Cultural Resources Study for the Airport Boulevard Hotel Project (APNs 059-370-033 and 059-370-034), Santa Rosa,

Sonoma County, California," October 23, 2018
- EBA Engineering. "Phase I Environmental Site Assessment, Westwind Business Park Lot A, 3750 North Laughlin Road," December 7, 2016.
- PJC & Associates, Inc. "Geotechnical Investigation, Proposed Hotel and Site Improvements, 3750 North Laughlin Road Santa Rosa, California," October 2018.
- Always Engineering. "Preliminary Storm Water Low Impact Development (SWLID) Report, Hyatt Place Sonoma Wine Country Use Permit," April 20, 2020.
- Charles M Salter Associates, Inc. "Hyatt Place Sonoma Wine Country Environmental Noise Study," Prepared May 9, 2019

I did locate an "Attachments" folder that included some technical studies cited in the MND (e.g., the VMT and Traffic Impact Analyses provided by W-Trans) but these other studies I listed above don't to appear to be in that folder:

https://share.sonoma-county.org/link/bBfU0a1FkQg/Item%202%20PLP19-0009%20Laughlin%20Hotel/Attachments/

Similarly, I could not find these documents in a packet that appears to have been prepared for the Airport Land Use Commission (ALUC), which took action on this project in a meeting on June 18, 2021:

https://permitsonoma.org/alucspecialmeetingjune182021

I did find some of these documents (e.g., the Origer cultural resources and several engineering studies) in a much earlier agency referral request sent to other agencies on March 25, 2019.

https://parcelsearch.permitsonoma.org/api/documents/5980860

Am I simply missing where these documents have been provided in the administrative record to date?

Or were these documents somehow overlooked when the later packages were assembled for the ALUC and BZA meetings?

Or were they deemed to be no longer relevant to the MND, or for some other reason, intentionally left out?

Thank you for all your work on this,

- Tom Conlon

--

Thomas P. Conlon

Ex-Com and Co-chair Climate & Energy, Sierra Club Sonoma Group

Steering Committee, Transition Sonoma Valley

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GeoPraxis

P.O. Box 5 • Sonoma California 95476 • USA

IDEAS *with* ENERGY

July 15, 2022

Permit Sonoma, County of Sonoma
Attn: Claudette Diaz, Planner II
2550 Ventura Avenue, Santa Rosa, CA 95403
707-565-7387
Claudette.Diaz@sonoma-county.org

Re: PLP19-0009 – Public Comments on Airport Hotel and Mitigated Negative Declaration

Dear Ms. Diaz:

Thank you again for providing me (on May 31, 2022) with a link to the following supplemental studies cited in this application that I had requested on May 25, 2022:

- AECOM, "Technical Report for the Proposed Hyatt Place Hotel Air Quality and Greenhouse Gas Emissions." July 2021.
- WRA Environmental Consultants. "Biological Assessment, Landmark Hotels, Inc., Hyatt Place Sonoma Wine County (sic) Project, Santa Rosa, Sonoma County, California," May 2020.
- WRA Environmental Consultants. "Biological Resources Technical Report, Landmark Hotel Group, Hyatt Hotel Project, Santa Rosa, Sonoma County, California," August 2019.
- EBA Engineering. "Phase I Environmental Site Assessment, Westwind Business Park Lot A, 3750 North Laughlin Road," December 7, 2016.
- PJC & Associates, Inc. "Geotechnical Investigation, Proposed Hotel and Site Improvements, 3750 North Laughlin Road Santa Rosa, California," October 2018.
- Always Engineering. "Preliminary Storm Water Low Impact Development (SWLID) Report, Hyatt Place Sonoma Wine Country Use Permit," 4/20/20.
- Charles M Salter Associates, Inc. "Hyatt Place Sonoma Wine Country Environmental Noise Study," Prepared May 9, 2019

Thanks too for also confirming (on June 1, 2022) that none of these studies had previously been made publicly available or reviewed by any members of the public, nor the Board of Zoning Adjustments (BZA), nor the Airport Land Use Commission (ALUC) before each of these bodies voted to recommend approval of this application at their meetings on March 10, 2022 and June 18, 2021, respectively.

While I have not yet come to any final conclusion about whether to support or oppose this project, I have reviewed the original package plus these additional studies and still have significant concerns about the accuracy and completeness of this Mitigated Negative Declaration (MND) application as presently drafted.

Therefore, I have attempted to summarize the many apparent problems within this MND application below:

1. According to Attachment 10, the Federal Aviation Administration's (FAA) "No Hazard" determination for this project expired on 2/7/2022. However, Permit Sonoma's staff report and presentation failed to make this fact clear to the Board of Zoning Adjustments at its hearing on 3/10/2022. Instead, it appears that BZA members were led to believe that this FAA determination was still in full effect, despite the fact that it had been issued during a period of time when Trump-appointee Elaine Chao was running the Department of Transportation and aviation safety had reached a point of crisis, marked most notably by two Boeing 737 MAX disasters resulting in 346 fatalities.

Is Permit Sonoma taking the position that it has considered the risks, and believes that in the event of a hazard involving this building that the County would bear no legal liability for having approved this MND based on an expired determination letter? If so, this should be made explicit in the project record.
ATT 10 PLP19-0009 FAA Determination of No Hazard to Air Navigation.PDF

2. Notice of this project appears to have been inadequate based on the lack of public comment to date, including at the BZA meeting on 3/10/2022 and the Board of Supervisors meeting on 5/3/2022. Specifically, there appears to be no record of any notice to the 30-plus attendees of the Airport Area Specific Plan Scoping meeting held on May 22, 2019. Because Staff has recommended *ad hoc* amendments to the existing Specific Plan which would enable this project to be fast-tracked prior to the completion and adoption of the new specific plan, is it the position of Permit Sonoma that these recommended amendments are insubstantial? If not, Staff should either notice those members of the public who took the trouble to attend that scoping meeting, or provide a written justification as to why Staff believes those members of the public would have no interest in the plan amendments this project would require.
https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Instructions%20and%20Forms/_PJR%20Project%20Review/Pre-2022/Department%20Information/Cannabis%20Program/_Documents/Airport%20Area%20Specific%20Plan%20NOP%205.7.19.pdf

3. Many of the cumulative impact issues raised in the Sierra Club's June 5, 2019 letter on the scoping of the anticipated Airport Area Specific Plan appear to have been inadequately assessed in this MND. These include the loss of local manufacturing, warehousing, or food processing capacity, and the need for a gap analysis of actual existing development compared to that previously forecast in the original plan. In particular, the analysis of this hotel project's impacts should address how prior errors in forecasting or plan implementation may already affect the proposed Airport Area Specific Plan area and/or the region in general, and therefore how these impacts may need to be addressed and/or mitigated.

Is it Staff's position that the old specific plan which zoned this area for industrial uses is now irrelevant and that no additional manufacturing, warehousing, or food processing capacity will need to be built in Sonoma County outside this plan area?

If not, these issues should be addressed, and if necessary mitigated, before these recommended amendments are approved.

A copy of Sierra Club's letter is provided at this link:
https://tinyurl.com/aasp-2019-06-05

4. The Permit Sonoma BZA Staff Report (March 10, 2022, page 5) describes the project as, "a 165-room, six-story hotel with a 176-seat rooftop restaurant in a single building." However, the same page also states that the "ground floor of the proposed building would contain, "an entrance lobby, kitchen, bar/cafe, lounge area…" and on page 12 adds that, "At full capacity, including all seats located within the restaurant, bar, and outdoor patio, a total of 242 seats would be occupied. The Use Permit is for a 176-seat restaurant. This calculation is based off restaurant and bar at full capacity." (emphasis in the original).

This *prima facie* underestimate of the rooftop restaurant and bar's true capacity appears to have been carried forward into the Traffic Impact analysis by W-Trans (ATT 9 A PLP19-0009 Traffic Impact Study.pdf, page 13) which states: "only those seats that are within the restaurant were counted as the bar is ancillary to the restaurant and hotel." This is also confirmed by a review of the CalEEMod documentation provided in Attachment A of the AECOM GHG Technical Report, which is the source of the project's already significant estimated GHG impacts that are in need of mitigation.

While it may be reasonable to include this project's proposed "ground floor bar/cafe" as integral to the trip generation estimate for a typical hotel land use, it is certainly not reasonable to under-count the true capacity of the rooftop "Quality Restaurant" by 37.5% (i.e., 242/176) and then further reduce the estimated number of trips associated with this restaurant by an additional 25% (based on the assumption of the internal capture of hotel guests). Is this really Permit Sonoma's position?

To confirm that Traffic and VMT impacts are fully accounted for, Staff should either clarify that the rooftop restaurant and bar at full capacity will not exceed the Use Permit total of 176, or require the Traffic and GHG analyses be re-performed using the higher "full capacity" number of 242 that is documented in the Staff Report. Alternatively, a Condition of Approval should be added requiring use of the rooftop bar and patio exclusively by registered hotel guests.

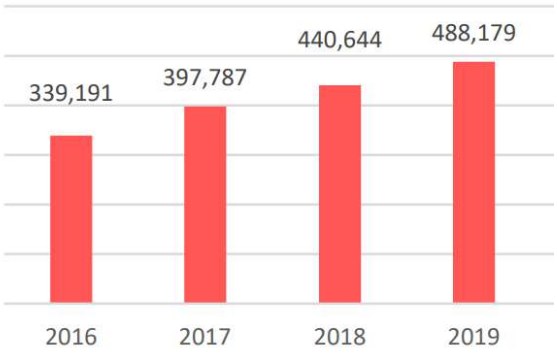
5. The Vehicle Miles Traveled (VMT) analysis by W-Trans (ATT 9 B PLP19-0009 VMT Analysis.pdf) cites Permit Sonoma as the source of a novel theory that the threshold of significance for VMT induced by this hotel should not conform with well established industry-standard practices for new "hotels" (as long recommended by the Office of Planning and Research (OPR), the Institute of Traffic Engineers (ITE), and historically observed by Permit Sonoma on previous hotel approvals). Instead, they cite "office hours – and informal sessions" to argue, without any further evidence, that this new hotel project should be treated as if it were somehow equivalent to "local-serving retail".

This is significant because new local retail uses are sometimes assumed to merely redistribute, but not add to regional VMT. This is based on the assumption that a new retail building is not expected to increase the total number of shopping trips by the static number of local residents. In other words, W-Trans argues that the new hotel would not generate any net increase in regionwide VMT unless it were to exceed the amount of trips associated with a 50,000 sq. ft. retail mall.

By introducing this argument into the record, is Staff making the claim that the total number of overnight visitors and hotel rooms in Sonoma County has somehow reached its peak? After this hotel is built will no net new visitors spend the night in Sonoma County lodging establishments (thus generating no additional GHG emissions or Transient Occupancy Tax dollars)?

If so, this questionable assumption should be well documented with substantial evidence as to which existing permitted hotels (inside or outside the County) would be expected to lose occupancy as a result of this newer and/or better located competitor.

This assumption should also be developed not in isolation by Permit Sonoma (for what appears to be the exclusive purpose of post-SB 743 CEQA compliance) but with the full cooperation of the Sonoma County Economic Development Board (EDB), Sonoma Tourism, and numerous private sector stakeholders. In particular, there should be a more robust explanation of how this aggressive “no net hotel growth” assumption is reasonable alongside TOT growth forecasts in the County’s FY2022-23 budget, the steady record of increasing hotel capacity since the County’s General Plan 2020 was adopted, and most notably steep historical passenger growth at the immediately adjacent airport:



According to the EDB, “Since 2012, passenger traffic at the Airport has increased each year, with the exception in 2020 due to COVID-19. During this slower period, Charles M. Schulz-Sonoma County Airport initiated construction of its Terminal Improvement and Modernization Project, which is expected to be completed by fall of 2022.” (Sonoma County Annual Tourism Report 2021, underlying dataset at: https://sonomacountyairport.org/about-sts/passenger-numbers).

Without substantial evidence, Staff should clarify that the speculative VMT methodology proposed by W-Trans in this hotel application is not acceptable for non-retail land uses in Sonoma County, especially not hotel-sector projects.

6. The Traffic Impact analysis and the VMT analysis (both by W-Trans) use very different baseline assumptions. The Traffic Impact analysis states, "Because the site is currently unoccupied, there are no existing trips to be deducted." However, as noted above, the VMT analysis ignores this common sense approach, and instead assumes an arbitrary threshold of significance baseline as if the project was actually a retail use (as described above). If vehicles are somehow "real" when they queue up at intersections, but their GHG emissions are somehow not, this apparent discrepancy is not adequately explained in the administrative record.

7. Both the Traffic Impact analysis and the VMT analysis by W-Trans (cited above) rely on an obsolete version of the ITE's Trip Generation Manual (v10), instead of the current version (ITE TripGen11, September 2021, https://itetripgen.org/index.html). Staff failed to note this fact to the BZA on 3/10/2022.

Does Permit Sonoma routinely cite obsolete technical standards without checking to see if the updates might have any substantive effects? If so, this should be clearly stated so that Commissioners, Supervisors, and members of the public are well aware of the potential risks involved in such a practice. Otherwise, this application should be updated to reflect at least the most current ITE methods, and any additional methodology upgrades adopted at the local level.

8. Similarly, the AECOM GHG Technical Report (p. 1-11) references the old 2016 Green Building Code, and the even older 2013 CALGreen Code, which is likely to be at least 10 years old before this project ever breaks ground. Furthermore, there are no references to California's 2022 Title 24 Building Code. California's building codes update on a triennial cycle and the most recently adopted code goes into force on January 1, 2023. These lacunae are 'red flags' indicating that some of the mitigation measures proposed in the application are likely to have already become required minimums under these updated minimum mandatory Codes and Standards (e.g., dedicated 208/240v raceways, ready to install EV charging stations, EV charging station accessibility, minimum 6% of all parking spaces required to install accessible EV charging stations, as required in TABLE 5.106.5.3.3, secure bicycle parking mandatory minimum of 5% of all parking, mandatory CO2 monitoring, etc.). Indeed, the CalEEMod 4.0 2020 user guide confirms that this version of the software only takes into account those mandatory building efficiency improvements through the 2019 code cycle (http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-e2020-4-0.pdf p. E-14).

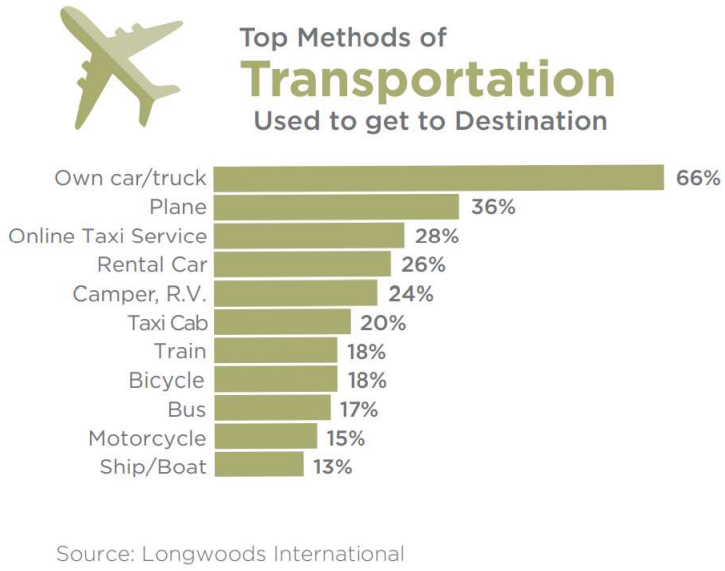
Is Permit Sonoma stating an opinion that the 2022 Energy Code updates will have no substantive effect on the post-mitigation GHG emissions of this project? If so, that should be clearly stated. If not, the MND should include an explanation of how these updated codes and standards (particularly new mandates for building decarbonization) will affect the project's GHG impacts.

9.The VMT analysis by W-Trans (cited above) states: "the VMT estimate also does not fully account for the fact that many hotel guests will be travelers using the airport that is only one-third of a mile away. For these reasons the VMT estimate should be considered conservative." However, despite this acknowledged linkage

between the project and the immediately adjacent airport, no GHG emissions associated with transport by airplane has been included in the administrative record. This matter has previously been litigated in Sonoma County in SCV-259242, the case which struck down the Sonoma County RCPA's Climate Action Plan 2020 for this very same reason.

10. The VMT analysis by W-Trans (cited above) fails to explain the seemingly absurd assumption that employee trips are assumed to be longer distance on average than trips made by hotel visitors. This might make sense if a Condition of Approval were to be added requiring all hotel guests to provide proof of residence in the County of Sonoma (or some similar distance limitation). However, no such condition is included in the Use Permit at this time. Such a condition should be added, or else additional documentation attempting to justify this absurd assumption should be provided in the administrative record.

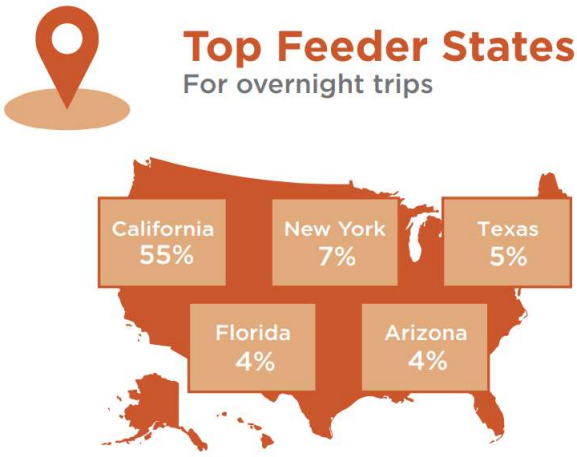
For example, Sonoma County Tourism has analyzed the various modes of transportation used by travelers visiting Sonoma County. They concluded that only 66% use their own car or truck, and that 36% travel by airplane. While these statistics are presented at the countywide level, an even higher fraction of travelers should be expected to use an airplane to reach a hotel that is only one-third of a mile from the region's largest airport.



Source: 2021 Sonoma County Annual Tourism Report

Is Permit Sonoma making the argument that the AECOM GHG impact analysis captures all emissions associated with all these modes of transportation used to get to this new hotel destination?

Sonoma County Tourism has also identified the top "feeder states" for guests generating "overnight trips" to Sonoma County.



Source: 2021 Sonoma County Annual Tourism Report

Is Permit Sonoma stipulating that this hotel will not advertise to or accept bookings from any guests originating in these other states? If so, this should exclusion should be added to the Use Permit. If the hotel will be serving guests traveling from these out-of-state regions, a reasonable estimate of the GHG emissions induced by this hotel's new overnight room capacity should be captured in the project's GHG analysis.

A simple and feasible method for estimating and attributing these air-related GHG emissions is provided in Attachment 1.

11. Appendix A of the AECOM GHG analysis documents an assumption of 76.8% of the hotel's occupancy rate (adjusted to exclude the atypical year of 2020 during which COVID 19 temporarily depressed global economic activity):

Sonoma County 5-year Hotel Occupancy Trend	
2017	78.65%
2018	82.60%
2019	78.20%
2020	37.90%
2021	67.80%
Aerage (not including 2020)	76.81%

Source: https://www.sonomacounty.com/partners/statistics

Appendix A also documents the CalEEMod input assumption that only 47% of the hotel's guests will have originated their trips to the hotel from "in-state" California.

Estimated Daily Hotel Guests from In-State	
Average Year Occupancy Rate in Sonoma County	76.81%
Number of Rooms	162
People per Room	2
Average Daily Visitors	249
Percent Visitors In State	47%
Average Daily In-State Guests	117

Is it Permit Sonoma's position that only the local GHG emissions of these "in-state" originating guests ought to be included in the environmental analysis of the MND and that the majority (53%) of this hotel's guests are irrelevant for purposes of GHG impact assessment under CEQA? This is unclear.

If this is the case, the absolute quantity of GHG emissions induced by this project's approval and construction, but excluded from the County's regulatory authority, should be calculated and clearly stated. In addition, whichever other jurisdiction(s) or third party(ies) the County presumes does have regulatory authority over this quantity of excluded project-specific emissions should be affirmatively identified. To confirm there are no misunderstandings, Sonoma County should also take the proactive step of notifying this (these) third party(ies) to alert them that they are considered to be co-responsible for regulating these induced impacts.

Furthermore, a more logical and well documented argument is needed to explain why after years of exercising broad regulatory authority over development projects of this same general type, Sonoma County somehow now lacks the full authority needed to regulate 100% of the cumulative environmental impacts its local land use decisions directly and indirectly induce. Does Permit Sonoma presume Sonoma County's local regulatory authorities to be limited only in this one category of cumulative VMT-related GHG impacts? Or are its regulatory powers over other environmental impacts similarly only proportional, and thus limited at the local level?

Specifically, if the Traffic and GHG emissions impacts of this project are each calculated based on only 47% of the total hotel guests who are "in-state" visitors, is Permit Sonoma intending to collect the full volume of traditional traffic impact fees and other fair share contributions this project would generate, or are these fees similarly reduced?

Supervisors should be fully informed and clear on this issue before making a discretionary decision to adopt an MND on this project.

12. The AECOM GHG Analysis assumes an estimated electricity emissions factor for 2019 of 40.09 lbs CO2e/Mwh. However, a quick check of the Sonoma Clean Power website (https://sonomacleanpower.org/power-sources, as of 7/12/2022)

confirms that 2020 emissions were as much as twice this rate, depending on which power product is selected:

- CleanStart - 80 lbs CO2e/Mwh
- EverGreen - 64 lbs CO2e/MWh

Because the CalEEMod software used to calculate GHG impacts assumes that emissions factors will continue to decrease over time (per CA law and policy directives), future year emissions estimates will be much lower. This apparent underestimate of actual base-year emissions intensity suggests that the project's Operational GHG emissions from electricity usage are unreasonably undercounted, here by as much as 100%.

Is Staff recommending approval of this MND despite this obviously aggressive baseline year emissions factor estimate, which is less than 20% of the CalEEMod (PG&E) default value?

If not, the more recent base-year emissions factor estimate for Sonoma Clean Power should be used and the electricity GHG impacts estimate should be re-factored proportionally higher (i.e., 80/40 = 2.0). Alternatively, the CalEEMod analysis should be re-performed using the more accurate "CleanStart" factor.

13. The "No significant impact" conclusion of the VMT threshold of significance analysis by W-Trans does not appear to have been accepted by AECOM, the applicant, or Permit Sonoma. A footnote or other statement to clarify that this portion of the record has been superseded by AECOM's assessment should be added to avoid confusion.

14. Because the GHG threshold of significance analysis has been customized for this project, the Service Population estimate is so low (relative to conventional practice), and the mitigation measures are so vaguely specified and conditional upon one another, more detail should be added to explain what quantitative thresholds and reporting protocols would actually invoke the various mitigation options. For example, if the hotel hires twice as many employees and vendors (150), will that impact the Service Population calculation, and therefore affect the mitigation gap that is required to be reported in the Annual Report and offset with credits? Will a certain minimum of ancillary parking lot solar (e.g.., above net annual on-site kWh demand) be required to be available for export offsite, or will any amount of parking lot solar be allowable mitigation? If parking lot solar becomes mandatory, will it still be eligible for mitigation credit?

Based on these major flaws in the application and its analysis to date, I respectfully request that Permit Sonoma encourage the applicant to withdraw the present application, and resubmit a revised MND once these informational gaps have been adequately addressed.

I trust you, your office, and the applicant will agree that the issues raised in this letter deserve resolution before this project's environmental assessment is presented to the Board of Supervisors for its approval.

Sincerely,

Thomas P. Conlon, President

cc: Chair, and Members Board of Supervisors

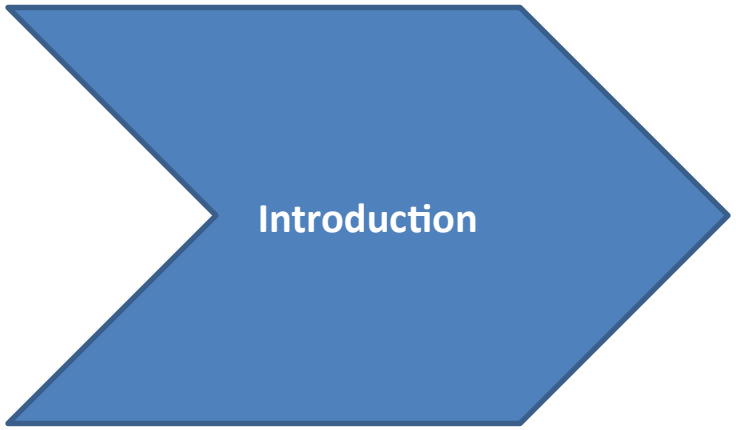
GeoPraxis

Hyatt Wine Country Hotel MND
GHG Analysis Recommendations

v.1.1, "Attachment A"
July 15, 2022


Overview of ICLEI US Protocol Air Transport Method
One Feasible Alternative Air-VMT Approach (based on the ICLEI Protocol)

CEQA Requires and ICLEI Recommends Estimating Air-Travel Impacts



- MND states only “47%” of hotel visitors will originate “in-state”
- Sonoma County Tourism documents a direct link between new hotel rooms and increased air travel
- Public tourism statistics are readily available
- ICLEI protocols provide a straightforward and feasible way to calculate air-travel VMT

Sonoma County Promotes Travel to Local Hotels

- Sonoma Co. Tourism's mission is to "*Inspire overnight travel*"
- SCT Strategic Plan sets a priority to:

o Generate revenue for BIA properties through campaigns that drive consumer purchase decisions through laser pinpoint messaging, customized booking options and in-market information sources.

o Drive revenue to the region through positioning Sonoma County as a premier destination with unique key appeals for overnight domestic and international leisure, business meeting, and social group gatherings.

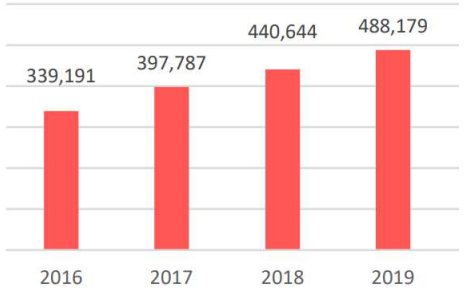
Source: https://www.sonomacounty.com/partners/strategic-business-plan
"BIA" = County-defined "Business Improvement Area:
http://sonomacounty-ca.elaws.us/code/coor_ch33_sec33-2

Increased Passenger Capacity at STS Airport Benefits Local Hospitality Industry

"A study by the airport has shown that each new route adds direct and indirect benefits of $23 million annually to the local economy, plus 70 new jobs.

"*That kind of expansion is an amazing thing for our economy. Our tourism industry benefits greatly," said Peter Rumble, CEO of the Santa Rosa Chamber of Commerce*."

- North Bay Business Journal (10/13/2019)



Sources: https://www.pressdemocrat.com/news/10163097-181/sonoma-county-airport-officials-optimistic
https://www.sonomacounty.com/sites/default/files/2021-07/SC-quick-facts-2020.pdf

Hotel Capacity is Increasing Countywide

“ If approved, the two hotels would join the recent boom in lodging construction. There are 6,900 hotel rooms across the county, according to Sonoma County Tourism, with about 1,500 more rooms either pitched or nearing completion - a 22% increase by 2022 if all 14 projects are built.”

- North Bay Business Journal (1/14/2020)

Source:
https://www.northbaybusinessjournal.com/article/article/sonoma-county-reviewing-pitches-for-two-large-hotel-projects-near-santa-ros/

Developer Acknowledges Airport ↔ Project Linkage

"I think any hotel that's near an airport benefits from traffic from that airport."

- Glynis Esmail, Vice President of Marketing and distribution, Landmark Hotels Inc.

Source:
https://www.northbaybusinessjournal.com/article/article/sonoma-county-reviewing-pitches-for-two-large-hotel-projects-near-santa-ros/

Significant Air-VMT Impacts Will Occur If These New Hotel Rooms Are Added

Hyatt MND acknowledges that only 47% of new hotel guests are expected to originate "In State":

Estimated Daily Hotel Guests from In-State	
Average Year Occupancy Rate in Sonoma County	76.81%
Number of Rooms	162
People per Room	2
Average Daily Visitors	249
Percent Visitors In State	47%
Average Daily In-State Guests	117

GHG impacts have been underestimated for the majority (53%) of hotel guests from out-of-state.

Source: AECOM Hyatt Place Hotel Air Quality & GHG Technical Report, (p.88 of 98).

1. Ground-VMT are under-counted

Table AQ-10. GHG Emissions	
Category	**CO_2e (Metric Ton Per Year)**
Area	0.01
Energy	627
Mobile	1,542
Stationary	7
Waste	54
Water	19
Total	**2,248**
Operational + Amortized[1] Construction Emissions	**2,270**
Service Population[2]	**75**
Per Service Population Emissions	**30.3**
Sonoma County SB 32-based efficiency threshold for land use sector[3]	**2.7**
Exceed Significance Threshold?	**Yes**
Notes: CO_2e= carbon dioxide equivalent.	

Source: AECOM Hyatt Place Hotel Air Quality & GHG Technical Report, p.3-14.

ICLEI USCP Protocol v.1.1*

U.S. Community Protocol
for Accounting and Reporting of Greenhouse Gas Emissions

Overview of ICLEI US Protocol Air Transport Method

Version 1.1

July 2013

Ground VMT Approach:

- preference given to origin-destination (using a demand-based allocation model) of vehicle trips by community members, as opposed to emissions from vehicles driving inside your community boundary (Methods TR.1.A and TR.1.B, respectively in Appendix D);

** A newer version of the USCP (v1.2) was issued in 2019, but this method was not materially updated. https://icleiusa.org/us-community-protocol/*

ICLEI USCP Sources & Activites

Table 2. Potential Community-Wide GHG Emission Sources and Associated Activities

In-boundary GHG Emissions Sources	Activities Resulting in GHG Emissions
Transportation and Other Mobile Sources [ii, iii, iv, v]	
On-road passenger vehicles operating within the community boundary	On-road passenger vehicle travel associated with community land uses
On-road freight and service vehicles operating within the community boundary	On-road freight and service vehicle travel associated with community land uses
On-road transit vehicles operating within the community boundary	
Transit rail vehicles operating within the community boundary	Use of transit rail travel by the community
Inter-city passenger rail vehicles operating within the community boundary	
Freight rail vehicles operating within the community boundary	
Marine vessels operating within the community boundary	Use of ferries by the community
Off-road surface vehicles and other mobile equipment operating within the community boundary	
	Use of air travel by the community

[ii] Community refers to residents, businesses, industries, and government co-located within a defined jurisdiction. Across each mode, travel by members of the community often involves crossing the community boundary with a portion of travel occurring outside the community.

[v] Some communities with transportation hubs or ports may be interested in tracking emissions associated with fuel loaded into aviation, marine, or rail vessels departing from those hubs or ports. These vessels often transport people and goods associated larger geographic regions, and often most of the fuel loaded into them is combusted outside the community boundary. These emissions are not included in Table 2 for these reasons, but local governments may choose to report on them in addition to the GHG sources and activities listed in Table 2.

ICLEI USCP Required Elements

Required Emissions Inventory Process

Step One: Conduct the Scoping Process

To scope out what GHG emissions will be included in the inventory, consider what stories you wish to convey about emissions in your community and what reporting frameworks will help you tell those stories (recommended at right). Identify the GHG emission sources and activities to be included under those reporting frameworks. At a minimum, the following five Basic Emissions Generating Activities must be included in the inventory.

- Use of electricity by the community
- Use of fuel in residential and commercial stationary combustion equipment
- On-road passenger and freight motor vehicle travel
- Use of energy in potable water and wastewater treatment and distribution
- Generation of solid waste by the community

Local governments are strongly encouraged to include other sources and activities in accounting and reporting as well.

MND does this (CalEEMod analysis)

MND fails to do this

ICLEI USCP Recommended Elements

Recommended Reporting Frameworks

Strongly Encouraged: Focus on Key Stories

Complete your emissions inventory report using one or more of the following reporting frameworks (in order of recommended priority).

1) **Significant Influence.** The GHG activities and sources over which your local government has significant influence.
2) **Community-wide Activities.** The wide set of community GHG activities of community interest, regardless of your local government's influence.
3) **Household Consumption**, regardless of your local government's influence.

Also Encouraged: Additional Reporting Frameworks

Expand your GHG emissions inventory report through any or all of the following reporting frameworks:

- In-boundary sources
- Government consumption
- Full consumption-based inventory
- Life cycle emissions of community businesses
- Individual industry sectors
- Create your own story

ICLEI USCP "Significant Influence"

2.3.2 Identifying Emissions Sources and Activities Subject to Significant Local Government Influence

This section provides guidance on identifying sources and activities to include under the strongly recommended Significant Influence reporting framework, defined above in section 2.3.1. Every local government has the opportunity to use its jurisdictional authority and community influence to reduce GHG emissions associated with some subset of community sources and activities. Use the following criteria to identify which GHG emission sources and activities your local government has significant influence over. Affirmation of any one or more of these criteria indicates an emissions source or activity is subject to significant local government influence.

- Regulatory Authority – Does the local government have the statutory authority to enact regulatory requirements or incentives that could significantly impact the emission generating activity or source, even if it chooses not to exercise such authority?

ICLEI USCP on Tourism and Travel

8) **Individual Industry Sectors** – Local governments may want to call out the contribution to emissions from individual industry sectors. For example, a tourism-dependent community might want to report on the emissions associated with the local tourism industry. This Protocol does not provide methods for estimating such emissions, but such methods may be developed.

CalEEMod does not do this… yet

3.2.2 Transportation and Other Mobile Sources Accounting Methods

The transportation sector comprises emissions associated with the movement of people and goods, as well as service vehicles. This movement may be by road, rail, air, or water.

As a source over which local governments have significant influence, passenger vehicle emissions will be most commonly accounted for in emissions inventories. The recommended method for passenger vehicles requires modeling of travel demand (vehicle miles travelled) induced by land uses in the community, assigning trips to the community when their origin or destination is located inside the jurisdictional boundaries, even if the trip extends outside the boundaries.

ICLEI USCP on Air Travel

Table TR.1 Summary of Transportation Greenhouse Gas Emission Sources

Attribution of Air travel emissions	Airport passenger surveys that identify the number of passengers that are traveling to/from the community	TR.6.D

or Project

Modeled after this well documented and widely applied "community" level approach, GeoPraxis recommends using a similar simplified air-passenger VMT methodology to estimate this hotel project's induced air travel GHG impacts.

This is surely not be the only way to do such an analysis, but this demonstrates one simple and feasible approach.

USCP: Air Travel Emissions Attribution

TR.6.D Attribution of Air Travel Emissions to your Community

plan or project

This section discusses the assignment of the airport emissions to a specific community. This assignment is based on some known or estimated portion of passengers that begin or end their air travel in the community.

Note that communities may use or include A) commercial service airports and B) other airports, such as general aviation airports and military bases. The inventories for non-commercial airports could be obtained from the airports, or calculated for each airport using methods TR.6.B-TR.6.C.

A number of alternative means[19] of allocating airport emissions to the communities they serve were considered. These include:

- All emissions from the airport are allocated to the community in which it is located. However, because economic activity associated with the airport accrue to more than just the host community, this alternative is not recommended;
- Allocate the emissions from the airport in accordance with the economic benefits of the airport. However, while many airport operators have sponsored the preparation of economic impact studies, not all studies identify the economic contribution to each community.
- Allocate the emissions from the airport in accordance with the users of the airport. Users of the airport represent primarily passengers and cargo. Passenger information was selected as that information is often more readily available.

TR.6.D Attribution of Air Travel Emissions to your Community

This section discusses the assignment of the airport emissions to a specific community. This assignment is based on some known or estimated portion of passengers that begin or end their air travel in the community.

Note that communities may use or include A) commercial service airports and B) other airports, such as general aviation airports and military bases. The inventories for non-commercial airports could be obtained from the airports, or calculated for each airport using methods TR.6.B-TR.6.C. If the community boundary includes non-commercial service airports, the emissions associated those airports should be included in the community inventory in their entirety (not allocated), in addition to any allocated emissions associated with commercial service airports.

A number of alternative means[19] of allocating airport emissions to the communities they serve were considered. These include:

- All emissions from the airport are allocated to the community in which it is located. However, because economic activity associated with the airport accrue to more than just the host community, this alternative is not recommended;
- Allocate the emissions from the airport in accordance with the economic benefits of the airport. However, while many airport operators have sponsored the preparation of economic impact studies, not all studies identify the economic contribution to each community.
- Allocate the emissions from the airport in accordance with the users of the airport. Users of the airport represent primarily passengers and cargo. Passenger information was selected as that information is often more readily available.

Data Needs

Preferred Data:	Airport passenger surveys that identify the number of passengers that are traveling to/from the community.
Alternate Data:	Estimates of the % of passengers that are traveling to/from the community.

If a passenger survey identifying the number or percentage of passengers who are traveling to or from your community is not available, you can try to estimate the percentage of passengers traveling through the airport who are from your community. Information from taxi and shared ride companies may be

[19] Ramaswami, A., Hillman, T., Janson, B., et al. (2008). A Demand- Centered, Hybrid Life-Cycle Methodology for City-Scale Greenhouse Gas Inventories. Environ. Sci. Technol., 42 (17), 6455-6461.
Hillman, T., & Ramaswami, A. (2010). Greenhouse Gas Emission Footprints and Energy Use Benchmarks for Eight U.S. Cities. *Environ. Sci. Technol., 44*(6), 1902-1910.

helpful in making this estimation. Examples of surveys can be found in Chavez et al. (2011), and Bay Area Airline Passenger Survey.[20]

Note that airports may report passengers in several ways. "Total passengers" often refers to the passengers that enplane (board aircraft), deplane (disembark), and origin & destination (begin or end their trip at the airport). It is important that when preparing the inventory that the passengers (either total, enplanements, or O&D) be in the same format. For instance, if information about passengers that begin/end their trip in the community are noted as O&D, then that information should be paired with total O&D passengers. If community passengers are noted as enplanements, then they should be paired with the airport's total enplanements (which are usually about half of total passengers).

Calculation Method
The method consists of the following 4 steps:

Step 1: Collect the total number of passengers that use each airport. Identify the basis of the data (total passengers, enplanements, or O&D).
Step 2: Collect from the airport passenger survey, the number of passengers that are traveling to/from the community. Identify the basis of the data (total passengers, enplanements, or O&D).
Step 3: Collect airport emissions from method TR.6.A or TR.6.B and TR.6.C.
Step 4: Plug the data collected in Steps 1 through 3 into Equation TR.6.D.1.

Equation TR.6.D.1 Attribution of Emissions from Air Travel		
Annual CO_2e emissions = [CMPAX / TPAX] x AGHG Where: Description		Value
TPAX	= Total number of passenger origins and destinations at airport	Total passengers
CMPAX	= The number of passengers traveling to/from the community that use the airport. Note that if enplanements are used here, then TPAX should be total enplanements	Community based passengers
AGHG	The CO_2e inventory reflecting only aircraft/APU, GSE, and airport fleet vehicles	Tons CO_2e

[20] 1. Chavez, A., Ramaswami, A., Dwarakanath, N., Ranjan, R., & Kumar, E. (2012). Implementing Expanded Geographic-Based Greenhouse Gas Accounting for Delhi, India. Data Availability and Methods. *Journal of Industrial Ecology*. In Press.
2. MTC. (2007). 2006 Airline Passenger Survey: Oakland and San Francisco International Airports. Metropolitan Transportation Commission. JD Franz Research, Inc.

Box TR.6.D.1 below gives an example of how to calculate the CO_2e emission from air travel associated with your community using Equation TR.6.D.1

Box TR.6.D.1	**Example Calculation Attributed CO_2e Emissions from Air Travel**	
Airport ABC conducted passenger surveys five years ago, showing that 45% of their origin and destination passengers reported that their air travel trip started or ended in XYZtown. The airport currently accommodated 1.25 million total passengers. The GHG inventory for the airport indicated a total airport-related GHG levels of 2,345,000 mt.		
Description		Value
TPAX	= Total number of passengers using the airport	1,250,000 total passengers
CMPAX	= The number of airport passengers traveling to/from XYZtown	562,500 passengers (45% of the total)
A-GHG	= The CO_2e inventory reflecting ONLY aircraft/APU, GSE, and airport fleet vehicles	2,345,000 $mtCO_2e$
Sample Calculation: *Annual CO2e emissions = [562,500 /1,250,000] x 2,345,000* *= 1,055,250 $mtCO_2e$*		

An Alternative Approach

- Estimate % hotel guests by points of origin
- Calculate Arrivals & Departures VMT
- Validate against default analysis (CalEEMod)

Hotel Travel VMT Impact Model: Occupancy Rate

Variable	Estimate	Source
# Rooms	165	MND (AECOM Appx A)
Workers/Room	0.45	
# Workers	75	MND (AECOM Appx A)
Days/Yr	365	
Max. # Room-Nights/Yr	60,225	if 100% occupancy
Occupancy rate (ann.)	76.81%	MND (AECOM Appx A)
# Occupied-Room-Nights/Yr	46,259	

Projected Hotel Guests by Origin Type

Projected Guest Types	Rm-Ngts/Yr.	%
Domestic	34,694	75%
International*	11,565	25%
Total Occupied Room Nights/Yr.	46,259	100%

Assume airport hotel will target this % of all guests to originate internationally
i.e., still less than intl. % observed in all SF and Sonoma Plaza Visitors Bureau in 2018

Overnight Visitors - San Francisco		
	n	%
Domestic	7,395,400	71.8%
International	2,904,600	28.2%
Total	10,300,000	100.0%

Sonoma Plaza - Walk-ins		
18,866	Domestic	73.7%
6,716	Intl	26.3%
25,582	Total	100.0%

Hotel Guest Origins: Domestic

2017 Total Domestic Origins	Cardholders	%	Source: Visa Vue
SF-Oakland-San Jose - CA	2,658,929	57.8%	SCT Partner Session 9/2018
All Other Domestic Origins	1,144,248	24.9%	(slide 62, 63, GeoPraxis)
Sacramento-Yolo - CA	274,900	6.0%	
LA-Riverside-Orange - CA	203,800	4.4%	
New York-N. New Jersey - NY	69,100	1.5%	
San Diego - CA	52,400	1.1%	
Seattle-Tacoma-Bremert. - WA	50,100	1.1%	
Chicago- Gary - Kenosha - IL	38,900	0.8%	
Washington-Baltimore - DC	37,100	0.8%	
Phoenix-Mesa - AZ	36,300	0.8%	
Portland-Salem, OR-WA	35,300	0.8%	
	4,601,077	**100%**	(slides 62-64)

Sonoma County analyzes the transactions of visiting Visa credit cardholders to estimate their points of origin.

Source: https://www.sonomacounty.com/sites/default/files/legacy-files/pdf/partner-session-sept-2018.pdf

Hotel Guest Origins: International

2017 Total International Origins	Cardholders	%	Source: Visa Vue
Canada	18,500	29.0%	SCT Partner Session 9/2018
All Other International Origins	18,724	29.3%	(slide 57, 58, GeoPraxis)
United Kingdom	6,780	10.6%	
Germany	3,820	6.0%	
Australia	3,410	5.3%	
France	2,930	4.6%	
China	2,310	3.6%	
Mexico	2,300	3.6%	
Japan	2,190	3.4%	
Denmark	1,510	2.4%	
Republic of Ireland	1,370	2.1%	
	63,844	**100%**	

Distance to Hyatt from Major Origins

Distance - Ground (One Way)*		
Major Origins - Domestic	**Ground Miles**	**Origin**
Santa Rosa	1	STS
San Francisco	69	SFO
Oakland	74	OAK
San Jose	106	SJC
Sacramento	109	SMF
Los Angeles	438	LAX
Santa Ana	474	SNA
Ontario	474	ONT
San Diego	562	SAN
Portland, OR	602	PDX
Las Vegas, NV	621	LAS
Seattle, WA	768	SEA
Phoenix, AZ	810	PHX
Houston, TX	1,994	IAH
Chicago, IL	2,139	ORD
Washington, DC	2,820	IAD
Newark, NJ	2,916	EWR
New York, NY	2,941	JFK

** domestic distances from Google maps,*
assume trips originate at local airports
*** air distances from ICAO (great circle)*

Distance - Air*	
Major Origins - International	**Miles (1-way)**
Vancouver, CAN	799
Mexico City, MEX	1,881
Toronto, CAN	2,254
Dublin, IRE	5,028
Tokyo, JPN	5,146
London, UK	5,352
Copenhagen, DEN	5,470
Paris, FRA	5,566
Frankfurt, GDR	5,683
Shanghai, CHN	6,135
Sydney, AUS	7,421

** air distances from ICAO (great circle)*

ICAO UNITING AVIATION
A UNITED NATIONS SPECIALIZED AGENCY

https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx

ICAO Air Emissions Estimates Domestic Origins

Air Travel Emissions Intensity	Distance - Air	One-Way	CO2e/trip**	CO2e/VMT
Major Origins - Domestic	Air-Route	Air-VMT	(MTCO2e/pax)	(MTCO2e/VMT
SF-Oakland-San Jose - CA*	SFO-STS	65.2	0.02155	0.00033045
All Other Domestic Origins	*Avg. of Top 10*	965.5	0.15096	0.00015635
Sacramento-Yolo - CA	SMF-SFO	85.1	0.02785	0.00023209
LA-Riverside-Orange - CA	LAX/SNA/ONT-SFO	357.7	0.08334	0.00017619
New York-N. N Jersey - NY	EWR/JFK-SFO	2,568.6	0.29688	0.00010100
San Diego - CA	SAN-SFO	446.2	0.08881	0.00015500
Seattle-Tacoma-Bremert. - WA	SEA-SFO	677.3	0.11784	0.00015128
Chicago- Gary - Kenosha - IL	ORD-SFO	1,841.2	0.23328	0.00010850
Washington-Baltimore - DC	IAD-SFO	2,414.2	0.28894	0.00010206
Phoenix-Mesa - AZ	PHX-SFO	650.0	0.12002	0.00014619
Portland-Salem, OR-WA	PDX-SFO	549.9	0.10800	0.00017618

** assume air emissions for any Bay Area short-haul trip are same as SFO-STS*

*** calculated, based on https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx*

ICAO Air Emissions Estimates International Origins

Air Travel Emissions Intensity	Distance - Air	One-Way	CO2e/trip**	CO2e/VMT
Major Origins - International	**Air-Route**	**Air-VMT**	**(MTCO2e/pax)**	**(MTCO2e/VMT**
Canada*	YVR/YYZ-SFO	1,526	0.14615	0.00009574
All Other International Origins	*Avg. of Top 10*	4,921	0.41158	0.00008364
United Kingdom	LHR-SFO	5,352	0.47659	0.00008905
Germany	FRA-SFO	5,683	0.53619	0.00009435
Australia	SYD-SFO	7,421	0.59892	0.00008070
France	CDG-SFO	5,566	0.48670	0.00008744
China	PVG-SFO	6,135	0.36795	0.00005998
Mexico	MEX-SFO	1,881	0.26499	0.00014088
Japan	HND-SFO	5,146	0.34029	0.00006612
Denmark	CPH-SFO	5,470	0.48471	0.00008861
Republic of Ireland	DUB-SFO	5,028	0.41327	0.00008219

** distance = average of Vancouver & Toronto*

*** calculated, based on https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx*

Domestic VMT – Ground vs. Air Method 1 Weighted by Engineering Judgment

DOMESTIC VMT-from-Origin Estimates (1-way)							
	Distance**	Mode Share Est.*		Weighted Estimates ***			
2017 Total Domestic Origins	VMT 1-way	Ground %	Air %	G-VMT-wgt	A-VMT-wgt	VMT-wgt	VMT-wgt-%
SF-Oakland-San Jose - CA	83	99.5%	0.5%	47.7	0.2	48.0	10%
All Other Domestic Origins	1,128	33%	67%	93.7	186.9	280.6	60%
Sacramento-Yolo - CA	109	99.5%	0.5%	6.5	0.0	6.5	1%
LA-Riverside-Orange - CA	462	30%	70%	6.1	14.3	20.5	4%
New York-N. New Jersey - NY	2,929	5%	95%	2.2	41.8	44.0	9%
San Diego - CA	562	30%	70%	1.9	4.5	6.4	1%
Seattle-Tacoma-Bremert. - WA	768	20%	80%	1.7	6.7	8.4	2%
Chicago- Gary - Kenosha - IL	2,139	5%	95%	0.9	17.2	18.1	4%
Washington-Baltimore - DC	2,820	5%	95%	1.1	21.6	22.7	5%
Phoenix-Mesa - AZ	810	20%	80%	1.3	5.1	6.4	1%
Portland-Salem, OR-WA	602	20%	80%	0.9	3.7	4.6	1%
		per domestic visitor:		**164.1**	**302.0**	**466.1**	**100%**
				35%	**65%**	**100%**	

** where Mode Share Estimates are assumed, based on engineering judgment*

*** where for 'All Other Domestic Origins', 1,128 VMT and 33% ground share are averages of Top 10 origins*

**** where Weighted Estimates are calculated, based on mode share, and Visa Vue cardholder origins*

International VMT – Assume via SFO

INTERNATIONAL VMT-from-Origin Estimates (1-way)							
	Distance	Mode Share Est.***		Unweighted (avg.)		Weighted Estimate****	
2017 Total International Origins	VMT 1-way	Ground %	Air %	G-VMT*	A-VMT**	VMT-wgt	VMT-wgt-%
Canada	1,595	4%	96%	69.0	1,526	462.3	11%
All Other International Origins	4,990	1%	99%	69.0	4,921	1,463.4	35%
United Kingdom	5,421	1%	99%	69.0	5,352	575.7	14%
Germany	5,752	1%	99%	69.0	5,683	344.2	8%
Australia	7,490	1%	99%	69.0	7,421	400.1	9%
France	5,635	1%	99%	69.0	5,566	258.6	6%
China	6,204	1%	99%	69.0	6,135	224.5	5%
Mexico	1,950	4%	96%	69.0	1,881	70.2	2%
Japan	5,215	1%	99%	69.0	5,146	178.9	4%
Denmark	5,539	1%	99%	69.0	5,470	131.0	3%
Republic of Ireland	5,097	1%	99%	69.0	5,028	109.4	3%
		per international visitor.		**69.0**	**4,921.0**	**4,218.3**	**100%**
Total:	54,890			759	54,131		
				1%	**99%**	**100%**	

** where G-VMT is distance from SFO to destination hotel (by ground)*
*** where A-VMT is "great circle" air distance from origin airport(s) to SFO*
- except 4,921 A-VMT for 'All Other Intl. Origins' is average of Top 10
**** where Mode Shares are calculated, based on G-VMT and A-VMT*
***** where Weighted Estimates are calculated, based on mode share, and Visa Vue cardholder origins*

Per Traveler VMT
(Arrival & Departure Trips Only)

Weighted Average VMT/Traveler	1-Way	2-Way
Ground VMT - Domestic*	164	328
Ground VMT - International	69	138
Air VMT - Domestic*	302	604
Air VMT - International	4,921	9,842

** Per Method 1 for ground vs. air VMT allocation (engineering judgment)*

Domestic Travelers VMT (Arrival & Departure Only)

Domestic	Travelers /Yr. Factor	VMT/Guest	Domestic Guests' VMT/Yr.
Ground VMT - (use reservations)*	11,964	328	3,926,763
Air VMT - (use Travelers)**	20,339	604	12,286,281

** Guests sharing a reservation are assumed to ride-share when traveling by ground*

*** All guests traveling by air assumed to require their own plane seat*

International Travelers VMT (Arrival & Departure Only)

International	Travelers/Yr.	VMT/Guest	Intl. Guests' VMT/Yr.
Ground VMT - (use reservations)*	3,988	138	550,344
Air VMT - (use Travelers)**	6,780	9,842	66,724,620

** Guests sharing a reservation are assumed to ride-share when travelling by ground*

*** All guests travelling by air assumed to require their own plane seat*

International Travelers VMT (Arrival & Departure Only)

International	Travelers/Yr.	VMT/Guest	Intl. Guests' VMT/Yr.
Ground VMT - (use reservations)*	3,988	138	550,344
Air VMT - (use Travelers)**	6,780	9,842	66,724,620

** Guests sharing a reservation are assumed to ride-share when travelling by ground*

*** All guests travelling by air assumed to require their own plane seat*

Simplified GHG Emission Factor for Estimating Ground-based Trips Outside of CalEEMod

MND Mobile CO2e Emissions	1,542	MTCO2e/Yr
MND Annual VMT	4,292,422	VMT/Yr
Emissions Factor (derived)*	0.00035913	MTCO2e/VMT

** Derived from AECOM Appendix A, p. 24 (CalEEMod.2020.4, w/ EMFAC adj. factors for SAFE Rule) assumes all non-CA VMT per CA policies (e.g., Low-Carbon Fuel standards, etc. over 20 years)*

Simplified GHG Emission Factor for Estimating Air-based Trips Outside of CalEEMod

Air CO2e Emissions	6,316	MTCO2e/Yr
Annual VMT	66,749,852	VMT/Yr
Emissions Factor (derived)*	0.00009462	MTCO2e/VMT

** Derived from ICAO weighted analysis*

Guest GHG Impacts (Arrival & Departure Only)

	Domestic Guests' VMT/Yr.	MTCO2e/VMT	MTCO2e/Yr
Ground GHG Impacts - Domestic	3,926,264	0.00035913	1,410.0
Air GHG Impacts - Domestic	10,497,336	0.0001433	1,504.0
Total	14,423,600		2,914.1

	Intl. Guests' VMT/Yr.	MTCO2e/VMT	MTCO2e/Yr
Ground GHG Impacts - Intl.	813,581	0.00035913	292.2
Air GHG Impacts - International	56,252,517	0.00008554	4,812.0
Total	57,066,098		5,104.13

Combined Domestic & Intl.	VMT/Yr.	MTCO2e/Yr	%
Ground GHG Impacts	4,739,845	1,702.21	21%
Air GHG Impacts	66,749,852	6,315.99	79%
Combined GHG Impacts	71,489,698	8,018.19	100%

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