



WI #19-108

10 March 2020

Mr. Andrew Crabtree  
Community Development Director  
City of Santa Clara  
1500 Warburton Avenue  
Santa Clara, CA 95050

Subject: Amendment to Norman Y. Mineta San José International Airport Master Plan  
First Amendment to the Draft Environmental Impact Report  
City of San José PP 18-103, SCH #2018102020  
Comments First Amendment Responses - Noise

Dear Mr. Crabtree,

In January, we reviewed and assisted you in commenting on the following documents pertaining to the *Amendment to Norman Y. Mineta San José International Airport Master Plan Draft Environmental Impact Report*:

1. *Amendment to Norman Y. Mineta San José International Airport Master Plan Draft Environmental Impact Report*  
City of San José PP 18-103, SCH #2018102020, November 2019 (“DEIR”)
2. *Norman Y. Mineta San José International Airport Noise Assessment for the Master Plan Environmental Impact Report*  
October 2019 (“Noise Assessment”)

In February, the City of San José released the following which contains responses to the comments made on the DEIR:

3. *Amendment to Norman Y. Mineta San José International Airport Master Plan First Amendment to the Draft Environmental Impact Report*  
City of San José PP 18-103, SCH #2018102020, February 2020 (“First Amendment”)

This letter presents our comments on some of the responses to the DEIR noise comments.

## 1 DEIR Does Not Assess Impact of Additional Nighttime Flights on Sleep Disturbance

The gist of this comment in our 13 January 2020 letter was that the DEIR does not assess the propensity of nighttime take-offs – in particular the 11 to 12 additional nighttime take-offs that will occur by 2037<sup>1</sup> – to disrupt sleep or awaken people who live under the flight paths near the airport. We recommended that the DEIR analysis be revised to include an analysis of the probability of individual and multiple single-event take-offs to disturb sleep and/or awaken people. Our comment, as summarized in the City of Santa Clara’s comment letter on the DEIR, is Comment C.5 in the First Amendment.

In our comment letter, which was attached to the City of Santa Clara’s letter and is included in Appendix A (Draft EIR Comment Letters) of the First Amendment, we pointed out that the California Court of Appeal, First District, Division 2 in *BERKELEY KEEP JETS OVER THE BAY COMMITTEE v BOARD OF PORT COMMISSIONERS* ruled that an EIR for an airport expansion should not rely solely on the Community Noise Equivalent Level (CNEL) to assess noise, as is done in the DEIR here, but should also consider the probability of sleep disturbance and awakenings. As summarized by Westlaw, the court ruled:

The environmental impact report (EIR) for an airport expansion failed to address adequately the potential disturbance to area residents resulting from increased nighttime air cargo operations and should not have relied exclusively on the Community Noise Equivalent Level (CNEL) regardless of the change in noise to quiet neighborhoods; the EIR contained no quantitative discussion of ambient noise levels in any nearby community and no meaningful analysis of noise levels over and above the existing ambient noise level at a given location and the community reaction to aircraft noise, including sleep disturbance, and the probability of being repeatedly awakened by multiple single-event sounds that could be calculated.<sup>2</sup>  
[emphasis added]

Although the Wilson Ihrig letter was attached to the City of Santa Clara’s letter, the comments made by Wilson Ihrig are not addressed directly in the First Amendment. Rather, responses are only given to the comments as summarized by the City of Santa Clara. Because Santa Clara’s letter did not cite the *BERKELEY KEEP JETS OVER THE BAY* ruling, the First Amendment does not address it. Rather, the response only reasserts that sole reliance on the CNEL is adequate.

We recommend that City of Santa Clara, in commenting on the First Amendment, specifically ask the City of San José why they believe the *BERKELEY KEEP JETS OVER THE BAY* ruling does not apply to the subject DEIR.

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<sup>1</sup> The Noise Assessment states that in 2037 there will be 42,067 more operations in 2037 than in 2018, that the time-of-day percentages are assumed to remain that same as in 2018, and that currently 10% of flights occur during the nighttime. [Noise Assessment at p 18] An annual increase of 42,067 operations implies a daily increase of 115 operations, 10% of which will be 11 or 12 flights.

<sup>2</sup> 91 Cal.App.4th 1344, 111 Cal.Rptr.2d 598

If it is determined that sleep disturbance and awakenings from individual flights should be addressed, we note that the noise insulation characteristics of many of the Santa Clara residences potentially affected by airport noise are known to the airport because each owner was given the opportunity for their home to be acoustically insulated through the airport's Acoustical Treatment (ACT) Program. [DEIR at p 265; First Amendment at p 29] With this detailed information about the noise insulation, the calculations necessary for the evaluation of sleep disturbance and awakening would be straightforward with minimal assumptions required.

## 2 DEIR Relies Solely on a Relative CNEL Increase Threshold of Significance

The gist of this comment is that because the DEIR analysis relies solely on a relative increase threshold of significance, there is, in theory, no limit to how loud the area can get over time. This comment is addressed as Comment C.6 in the First Amendment.

The DEIR cites the FAA's Airport Improvement Program (AIP) Handbook as establishing two thresholds of significance for noise increases:

1. If the increase in land area inside the 65 CNEL or Ldn contour does not exceed 17 percent (measured from the no project condition), the impact is considered insignificant.
2. If [the] analysis shows that cumulative noise exposure as defined by CNEL or Ldn does not increase by 1.5 dB or greater, the aircraft noise impacts of the project are considered insignificant. [DEIR at p 256]

It is very common for EIR analyses to state that because a 1.5 dB increase in a transportation-source noise level is not perceptible to the public (particularly when it occurs over time), it cannot cause a significant impact.<sup>3</sup> The primary fallacy of this reasoning is that "perceptibility" is only one potential basis for a threshold of significance, and it is not necessarily the correct one when noise levels are already high. To make a parallel with water quality, the increase of a toxic chemical may not be perceptible (and in many cases is not), but the amount in the water could cross an absolute threshold that is known to be dangerous. While studies establishing direct links between noise exposure and non-auditory health effects may lag those for chemical exposure, there is progress being made in this area:

Observational and experimental studies have shown that noise exposure leads to annoyance, disturbs sleep and causes daytime sleepiness, affects patient outcomes and staff performance in hospitals, increases the occurrence of hypertension and cardiovascular disease, and impairs cognitive performance in schoolchildren.<sup>4</sup>

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<sup>3</sup> Note that the first threshold, the increase in area under the 65 dBA CNEL contour is also a relative threshold, so the arguments presented regarding the second threshold also pertain to the first.

<sup>4</sup> Basner, Mathias, M.D., et al, *Auditory and non-auditory effects of noise on health*, Lancet, 12 Apr 2014; 383(9925): 1325–1332. Mathias Basner, Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania Perelman School of Medicine.

As stated in our previous letter, by using only a relative increase, “perceptibility” threshold, there will be, effectively, no limit on how loud airport noise levels may become over time. It may take a long time, but the First Amendment response to Comment C.6 tacitly acknowledges that increases may be perpetual because of the constant resetting of the baseline:

Future changes in noise exposure due to aircraft operating at SJC will be subject to many influences including number of aircraft operating, the types of aircraft in operation, and the airlines operating at the Airport. Any future baseline noise modeling would take all of these factors into account. [First Amendment at p 29; emphasis added]

The First Amendment responses implies the noise levels could come down with future technologies and states that it does not need to consider noise levels past 2037. While those both may be true, they miss the point of Comment C.6: by not establishing an absolute threshold, any noise level – even 85 dBA CNEL – could be attained over time. All the more reason to establish an absolute threshold now for future use and consideration.

In the current DEIR, we recommend additional absolute criteria be adopted along these lines:

- A. Since the fundamental FAA threshold of significance is 65 dBA CNEL, any noise sensitive receptor that is currently not exposed to this level but who would be as a result of the project – regardless of the relative increase – be identified as significantly impact. The rationale is that persons who were formerly exposed to noise levels less than the FAA’s fundamental threshold of significance will be as a result of the project. Our 13 January 2020 letter indicated one area where this seems to be the case.
- B. Establish an absolute threshold above which any increase would be considered a significant impact, again, regardless of the relative increase. This level may be above any that the current project is expected to cause, but, even if that is the case, it would recognize the need for an absolute limit and set a precedent for future development. An example of this may be found in the City of Newport Beach thresholds of significance for aircraft noise levels:<sup>5</sup>

City of Newport Beach CNEL Increase	
Noise Exposure with Project	CNEL Increase over Existing Conditions
55 CNEL	3 dB or greater
60 CNEL	2 dB or greater
65 CNEL	1 dB or greater
70 CNEL	1 dB or greater
> 75 CNEL	Any increase is considered significant

<sup>5</sup> Draft Environmental Impact Report No. 617 John Wayne Airport Settlement Agreement Amendment, Appendix C, Noise Analysis Technical Report, April 2014.

Finally, the response to Comment C.6 states that all potentially affected residences in Santa Clara under the flight path have already been treated by the airport’s Acoustical Treatment (ACT) Program, and, therefore, the homes “are considered compatible with the Airport”. [First Amendment at p 29] It may be the case that the noise insulation provided by the ACT Program is adequate for the noise exposure that will result from the current project, but that does not mean that it will be sufficient for any future noise level. If that were the case, then there would be no need to conduct this or any future noise study for an EIR because the finding *a priori* would be that the noise had already been mitigated to a less-than-significant level.

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Please contact us if you have any questions about our comments on the responses provided in the First Amendment to the DEIR for the Amendment to the Mineta San José International Airport Master Plan.

Very truly yours,

WILSON IHRIG

Derek L. Watry  
Principal

