m | r | wolfe
& associates, p.c.
attorneys-at-law

January 24, 2014

Via Fax & E-Mail
Acknowledgement of Receipt Requested

Mayor Phil Smith
Members of the City Council
City of Tehachapi
c/o City Clerk
115 South Robinson Street
Tehachapi, CA 93561
Fax: (661) 822-8559
Email: djones@tehachapicityhall.com

Re: Appeal of Planning Commission Action: Architectural Design And Site Plan Review No. 2007-11; Tehachapi Walmart Supercenter

Dear Mayor Smith White and Members of the City Council:

On behalf of Tehachapi First, this is to request that the City Council uphold the appeal of the above-referenced action and decline to certify the revised Final Environmental Impact Report ("FEIR") for the Tehachapi Walmart project and to deny the land use entitlements approved by the Planning Commission. As discussed further below, the revised FEIR remains inadequate under CEQA and otherwise fails to satisfy the conditions of the writ of mandate issued by the Kern County Superior Court.

First, Tehachapi First objects as a matter of procedure to the fact that the FEIR was not made available to the public until December 5, 2013, just two business days before the Planning Commission hearing on the Project. The FEIR contains dozens of changes to the revised draft EIR ("RDEIR") and more than 100 pages of comment responses and new analysis. It is patently unreasonable to expect the public to review and digest such a large volume of new material in so short a period of time. Furthermore, the CEQA Guidelines require that a lead agency "shall provide a written proposed response to a public agency on comments made by that public agency at least 10 days prior to certifying an environmental impact report." Guidelines, § 15088(b). Caltrans, a public agency, commented on the RDEIR on August 8, 2013. There is no indication in the materials provided to the public to date that the City provided Caltrans with a written proposed response to its comments 10 days before the Planning Commission voted to certify the FEIR. If the City did in fact provide such a response, that should be included

in the administrative record and made available to the public in advance of any action by the Council.

Following are more specific objections to the substantive content of the FEIR, organized by topic.

Noise

Please refer to the attached letter from noise expert Derek Watry of the acoustical consulting firm Wilson Ihrig & Associates. As the letter shows, Mr. Watry identified three major problems with the FEIR's responses to timely comments on the RDEIR's analysis of the Project's cumulative noise impacts.

First, the FEIR failed to justify the RDEIR's improper reliance on noise levels measured at the building facades of affected residences rather than at the property lines or outdoor activity areas located well away from the facades. Tehachapi First commented on this failure specifically, asking that levels be re-measured at the proper location. In response, the FEIR simply offered a blanket statement that "Outdoor activity areas are normally located near or adjacent to the main residential building and are areas where people expect to congregate for conversation. Outdoor activity areas for single-family residential uses are typically represented by back yards or the building setback." FEIR at p. II-23. In other words, the City did not report noise levels at the property lines as requested.

This omission was material, and resulted in a failure to disclose a significant noise impact. The City's own General Plan provides, in Chapter 2.1 H, *Community Safety Element, Part B: Noise* (January 2012) :

> "Noise sources that do not generate noise levels in excess of an annual average Ldn of 60 dBA beyond the right-of-way line, in the case of highways, major local streets, and railroad rights-of-way, or the property line for stationary noise sources, are generally not included unless otherwise indicated." [emphasis added]

Thus, the proper point of measurement for determining whether noise sources from "major local streets" exceed applicable standards is boundary roadway right-of-way, which in practical terms is necessarily even closer to the noise source than the property lines of adjacent residences.

Regardless, there is no evidence to support the FEIR's cavalier statement people are only going to use those areas of their front or back yards that are next to the facades of their homes. As Mr. Watry explains in his letter, there is photo-based evidence that at least one affected residence has a picnic table situated approximately 50' from the roadway. To assume, with no factual basis, the manner and location where affected residents use their homes' outdoor spaces is contrary to CEQA's mandate for reasoned,

fact-base analysis. In this case, this assumption appears calculated to produce a finding of a less than significant noise impact.

In fact, as Mr. Watry documents, there are at least four residences where the distance from the roadway to the outdoor area is substantially closer than from the roadway to the building façade. Using standard sound level attenuation rates applicable to roadways with earth or vegetation alongside, Watry calculated correction factors between the building façade locations used in the RDEIR and the outdoor activity areas for all the affected residences, *i.e.*, where children play. The results show that 65 CNEL residential noise standard adopted by the RDEIR is in fact exceeded at at least one residence. This is a significant impact that is nowhere disclosed in the RDEIR or FEIR.

Second, the FEIR fails to evaluate the Project's considerable contribution to the existing noise impact from train noise to three hotels local along Tehachapi Boulevard. The RDEIR improperly classified the hotels as "Commercial" land uses and hence applied the more lenient noise standards applicable to commercial uses, finding that neither the Project-specific noise increase nor future combined sound levels exceed the commercial standards of 5 dB increase or 70 CNEL absolute, respectively.

The decision to classify the hotels as non-residential uses was improper. As Mr. Watry explains, it is usual and customary to treat lodging as a residential, noise-sensitive receptor (*see, e.g.*, Federal Transit Administration *Transit Noise and Vibration Impact Assessment*, May 2006). In fact, the RDEIR itself acknowledges that the hotels "may be considered a noise-sensitive use because people sleep there," while also reporting a noise standard of 65 CNEL for "Transient Lodging – Motels, Hotels" (RDEIR Table IV.I-3).

Had the RDEIR properly considered the hotels as noise-sensitive uses, it would have concluded that there is an existing cumulative noise impact. This in turn would have triggered a duty to determine and assess whether or not the Walmart project makes a "considerable contribution" to that existing cumulative impact. Because the RDEIR fails to identify the existing impact in the first instance, it does not undertake the second step of the analysis. This constitutes a failure to proceed in the manner required by CEQA. *See Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 ("lead agency shall consider whether the cumulative impact is significant and whether the proposed project's incremental effects are cumulatively considerable," emphasis added).

Third and finally, the RDEIR fails to provide substantial evidence to justify its use of the very same thresholds of significance to determine 1) whether noise impacts from the Project by itself are significant and 2) whether the Project makes a considerable contribution to significant cumulative impacts. In response to Tehachapi First's comment objecting to this, the FEIR claimed incorrectly that the project-specific and cumulative analyses used "very different thresholds." In fact the two analyses used the same FTA thresholds of significance, e.g., a 2 dB increase is significant when existing noise is between 60 and 65 CNEL, but simply applied these thresholds to different baselines. For

the project-specific analysis, the RDEIR determined whether the Project's noise increment exceeded the FTA threshold for a baseline consisting of the 2009 existing noise exposure. For step two of the cumulative analysis, the RDEIR determined whether the Project's noise increment exceeded the FTA threshold for a baseline consisting of the projected noise level for the General Plan Buildout traffic without the Project.

CEQA requires that an agency justify its significance thresholds with substantial evidence. The RDEIR did not provide any justification for employing the same FTA thresholds to determine whether the project-specific impact is significant and whether the project makes a considerable contribution to a significant cumulative impact. Nor, in response to Comment No. 4-13, did the FSEIR justify the threshold by explaining how it could be consistent with the CEQA principle that an individually minor impact may be a considerable contribution. The FSEIR's response does not provide any substantial evidence to justify the threshold; it simply explains how the threshold is applied in the RDEIR by stating that the two analyses use different baselines. As Mr. Watry explains, the response does not disclose that the cumulative analysis is simply redundant and will never identify a considerable contribution unless the analysis has already found a significant project-specific impact.

Using the same thresholds for project-specific and step two of the cumulative analysis is inconsistent with the CEQA principle that an individually minor impact may nonetheless constitute a considerable contribution to a significant cumulative impact. *Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1025-1026; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 117-118, 121. Mr. Watry's comments demonstrate that using the same FTA threshold to determine whether the project-specific impact is significant and whether the Project makes a considerable contribution to a significant cumulative impact renders the cumulative analysis redundant and therefore meaningless. Using the same thresholds means that the EIR will never find a considerable contribution to a future significant cumulative noise impact unless it also finds that the Project's individual impacts are significant. There is simply no point to the cumulative analysis.

As Mr. Watry explains, the EIR does in fact project future significant cumulative traffic noise impacts due to the expected addition of traffic from multiple future projects projected by the General Plan. For example, Mr. Watry explains that the Walmart Project is by far the largest single contributor to an acknowledged significant cumulative impact at Tucker Road north of Conway caused by Walmart and 14 identified future projects. This cumulative impact would not occur at all but for the Walmart project. Despite the fact that Walmart is the largest contributor, the RDEIR's approach does not, and cannot, find that the Walmart project or any other project makes a considerable contribution to this impact. The result: no mitigation despite the significant cumulative impact.

By relying on the same threshold, the City ensures that it will not take action to address significant cumulative noise impacts even from very large traffic-generating

projects like the Walmart Project. Given this practical consequence, and given the failure of the EIR to provide any justification for the threshold used to determine "considerable contribution," the City has prejudicially failed to provide substantial evidence in the EIR to justify the step two threshold.

Water Supply

The Final EIR includes a vast quantity of new information, including charts, graphs, mathematical formulae that was omitted from the Revised Draft EIR. Although purportedly developed simply to respond to Tehachapi First's comments on the Revised Draft, the new information should have been circulated for public review and comment. Where new information shows that the analysis in a Draft EIR was "basically inadequate and conclusory in nature that meaningful public review and comment were precluded," the agency's sole course is to recirculate a corrected EIR so that the information may be tested by public comment and response. Guidelines, § 15088.5(a)(4). It is unreasonable for the City to provide the actual, substantive technical analysis supporting the EIR's broad conclusions regarding cumulative water supply impacts for the first time in nominal comment responses in a final EIR. At the very least this information should have been included in an appendix to the Revised Draft EIR. *See* Guidelines, § 15147 ("Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review").

Given the current state of drought emergency statewide, adequate opportunity for public scrutiny of information directly relevant to the Project's potential cumulative impacts on water use by residents and businesses within the Tehachapi Basin is of critical importance. The City Council should direct staff to recirculate the new water analysis.

Traffic

In its comments on the Revised Draft EIR, Caltrans states re-striping requirements for a two-way left turn lane at the intersection of SR 202 Valley Boulevard at Sierra Vista will require additional pavement width. The same is true for a free right turn and receiving lane at SR 202 at eastbound SR 58. Caltrans commented further that new requirements to accommodate bike lanes and pedestrian medial refuge areas will substantially change the configurations, and will make it "difficult to impossible to make the modifications fit within the existing curb-to curb distances." *See* Caltrans comments 3-4, 3-5, and 3-6. The FEIR responds generally that the Revised Draft EIR was only supposed to identify which impacted intersections are outside City jurisdiction and the comments are technically outside the scope of the Writ. The City then states that additional right-of-way costs would be incorporated into the fair share contribution and that at the time the improvements are initiated, "the design will be required to meet Caltrans design specifications."

What the FEIR fails to disclose is that the necessary right of way to accommodate the features in these mitigation measures may not be available at all. If this is the case, then the mitigation would become physically infeasible, as opposed to legally infeasible by virtue of being outside the City's jurisdiction. This fact should have been disclosed in the Revised Draft EIR, or at the very least in the FEIR. Furthermore, the revised EIR continues to find that the impact at SR 202 at EB SR58 Ramps is less than significant, based on the expectation that RTIF program is flexible enough to accommodate the design change. However, if right of way is not available for this design change, the impact will be unavoidably significant regardless of RTIF funding because the mitigation cannot be constructed, which the EIR fails to disclose. Finally, if the mitigation in fact proves infeasible, bicycle and pedestrian safety would be compromised as a result of the Project. This potentially significant impact likewise has nowhere been disclosed, in violation of CEQA.

In conclusion, Tehachapi First respectfully requests the City Council to uphold its appeal and to DECLINE to certify the FEIR and approve the Project at this time. The Council should instead direct staff to recirculate a revised Draft EIR that corrects the deficiencies identified above and includes the new information disclosed only for the first time in the FEIR.

Thank you for your consideration of these concerns.

Yours sincerely,

M. R. WOLFE & ASSOCIATES, P.C.

Mark R. Wolfe

MRW:am
attachment

WILSON IHRIG & ASSOCIATES
ACOUSTICAL AND VIBRATION CONSULTANTS
CALIFORNIA NEW YORK WASHINGTON

6001 SHELLMOUND STREET
SUITE 400
EMERYVILLE, CA 94608
Tel: 510-658-6719
Fax: 510-652-4441
www.wiai.com

MEMORANDUM

23 January 2014

To: Tehachapi First

Fr: Derek L. Watry, Principal

Re: Tehachapi Walmart Final Revised Environmental Impact Report Review – Noise

As requested, we have reviewed the various documents pertaining to the Tehachapi Walmart Environmental Impact Report (EIR), including, but not limited to, the Revised Draft EIR ("RDEIR") and associated appendices dated June 2013 and the Final Revised EIR ("FREIR") dated November 2013. Wilson Ihrig has practiced exclusively in the field of acoustics since 1966. During our 45 years of operation, we have prepared hundreds of noise studies for Environmental Impact Reports and Statements. We have also peer-reviewed and critiqued many more noise studies. Wilson Ihrig has one of the largest technical laboratories in the acoustical consulting industry, and we routinely utilize industry-standard acoustical programs such as Environmental Noise Model (ENM), Traffic Noise Model (TNM), SoundPLAN, and CADNA. In short, we are well qualified to prepare environmental noise studies and review studies prepared by others.

As the California legislation that establishes the need for an EIR states, "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." [Calif. Public Resources Code, Section 21002.1(a)]. A set of "guidelines" have been established since this legislation was signed into law in 1970 to aid in the required identification of significant environmental effects, and we believe that these have not be correctly followed in all instances by the Tehachapi Walmart EIR Noise section. As such, the EIR does not adequately and reliably inform the public and decision-makers about the noise impacts from this proposed project. Details about our analyses and findings follow.

Issue #1: FREIR Failed to Identify Significant Impact on Tucker Road

Comment No. 4-11 on the RDEIR requested that the noise analysis be conducted at the property line of affected properties rather than at the building façades. The FREIR response to this comment states that "Outdoor activity areas are normally located near or adjacent to the main residential building and are areas where people expect to congregate for conversation. Outdoor

activity areas for single-family residential uses are typically represented by back yards or the building setback". FREIR at p. II-23. The FREIR did not restate the noise analysis as requested.

First, the *Tehachapi General Plan - Chapter 2: The Elements of Our Community Vision, CHAPTER 2.1 H, Community Safety Element, Part B: Noise* (January 2012) states:

> Noise sources that do not generate noise levels in excess of an annual average Ldn of 60 dBA beyond the right-of-way line, in the case of highways, major local streets, and railroad rights-of-way, or the property line for stationary noise sources, are generally not included unless otherwise indicated. [emphasis added]

This indicates that the noise analysis should be conducted at the roadway right-of-way, or at least the property line, albeit, in many cases, these are one and the same.

Second, when a home has an established front yard, it is not reasonable to assert that people are going to congregate only at the front building façade. A perfect counter-example is the situation at 19239 Red Apple Avenue. The RDEIR shows the analysis location to be at the building setback and the text states correctly that this is 67' from the roadway. However, the Street View function of Google Maps clearly shows a picnic table in the front of this residence at a distance of approximately 50' from the roadway. It is inappropriate for environmental analysts to make assumptions about where and in what manner people enjoy their own property. This is, we believe, a primary reason why the vast majority of noise regulations apply unambiguously at the property line.

Photo of 19239 Red Apple Avenue showing picnic table in front yard

All that said, we reviewed the representative locations used by the RDEIR and looked for situations where the distance to the outdoor area nearest the roadway (typically the front yard) was markedly shorter than to the building façade. We found four such instances: 107 Tucker, 19239 Red Apple, the residence on Valley Blvd west of Mountain View Avenue (no address given in RDEIR), and 831 Curry.

Using the closer distance and the sound level attenuation rate applicable to a roadway with earth or vegetation alongside [4.5 dB per doubling of distance; see RDEIR at p. IV.I-3], we calculated correction factors between the location used in the RDEIR (i.e., the building façade) and the more reasonable outdoor activity area. Note that we did not use the distance to the property line, but, rather, the distance to an area that could very reasonably be used as an "outdoor activity area"; an area where children might play, for example. For the property at 107 Tucker, this correction discloses that the project traffic causes a significant impact because it causes noise levels to exceed the applicable outdoor numerical standard for residences identified by the RDEIR at p. IV.I-16, 65 CNEL. Our calculations are summarized thusly:

Corrected Calculations for 107 Tucker Road (north of Conway Avenue)

FREIR Baseline	63.6	CNEL	Table IV.I-4
FREIR Baseline + Project	64.5	CNEL	Table IV.I-4
Project only	57.2	CNEL	Calculated
Distance to Bldg Façade	116	feet	Scaled from aerial photo
Distance to Front Yard	99	feet	Scaled from aerial photo
4.5 dB/dd Correction	+ 1.0	dB	Calculated
Corrected Baseline at 99 feet	64.6	CNEL	Calculated
Corrected Baseline + Project	65.4	CNEL	Calculated

In this instance, the analysis using the more reasonable front yard outdoor activity area discloses a significant project noise impact at this residence. This impact was not identified by the RDEIR because the analysis therein used an analysis location that was farther from the roadway. The assessment of outdoor noise impacts at building facades rather than at the actual outdoor activity areas systematically, and erroneously, minimizes noise levels at the subject properties.

Issue #2: FREIR Fails to Assess Considerable Contribution to Impact at Hotels

There are three hotels on Tehachapi Boulevard between S. Mills St. and Mulberry St., namely, Fairfield Inn & Suites by Marriott, Best Western Country Park Hotel, and Best Western Mountain Inn. The RDEIR described this land use as "Commercial (Hotel)", and subsequently assessed the properties using criteria established for commercial enterprises.

However, it is usual and customary to treat lodging as a residential, noise-sensitive receptor (see, for example, the Federal Transit Administration *Transit Noise and Vibration Impact Assessment*, May 2006). The RDEIR itself acknowledges that the hotels "may be considered a noise-sensitive use because people sleep there". [RDEIR at IV.I-26]

The RDEIR and FREIR failed to evaluate the segment of Tehachapi Boulevard between S. Mills Street and Mulberry Street under cumulative General Plan Buildout conditions, addressing only the segment of Tehachapi Boulevard west of Mountain View Avenue, a segment that begins one block west of the segment between S. Mills St. and Mulberry St. that contains the three hotels. Given the presence of the three noise-sensitive hotels, this omission is problematic.

However, noise conditions on the segment of Tehachapi Boulevard containing the three hotels can be inferred from the FREIR's Table IV.I-9, Year 2009 to General Plan Buildout Roadway Noise level Impacts, at FREIR p. II-21 (which was revised to reflect revised train noise levels assumptions). The table includes both train and roadway noise. Although the table does not include the road segment including the hotels, it does include an analysis of the nearby segment of Tehachapi Blvd west of Mountain View Avenue. Based on the similar results between this road segment and the segment on which the hotels are found in other parts of the FREIR [for example, Table IV.I-6, Cumulative Project Roadway Noise Level Impacts (Listed Projects &Walmart)], the information in the "west of Mountain Avenue" segment may be used as a proxy for the absent, segment-specific data.

Table IV.I-9 reveals that the General Plan Buildout will cause a 4.0 dB increase on Tehachapi Boulevard, increasing from a year 2009 baseline of 61.3 CNEL to a General Plan Buildout level of 65.3 CNEL. Since the RDEIR and FREIR treat Tehachapi Boulevard west of Mountain View as a commercial location, they apply the significance criteria for commercial locations, under which impacts would only be significant if noise exceeds 70 CNEL or if there were a 5 dB increase. Thus, the RDEIR and FREIR do not disclose a significant cumulative impact.

We believe the relevant absolute standard that should be applied to the road segment containing the three hotels is 65 CNEL. First, as the RDEIR acknowledges, hotels are in fact a noise-sensitive land use. Second, as shown in the RDEIR on Table IV.I-3, Land Use Compatibility, 65 CNEL is the maximum normally acceptable noise level for "Transient Lodging – Motels, Hotels," as it is for "Multi-Family Homes". This is, by the way, an exterior noise standard, and the Best Western Mountain Inn has an outdoor pool directly adjacent to Tehachapi Boulevard, so there can be no question about the applicability of an exterior standard to this situation.

The RDEIR at p. IV.I-17 identifies a noise increase at a noise-sensitive land use as a significant impact if it causes the noise level to exceed 65 CNEL or if it adds more than 2 dB in an area where the baseline is between 60 and 65 CNEL. Applying either criteria, the 4.0 dB increase on Tehachapi Boulevard, from the 2009 baseline of 61.3 CNEL to a General Plan Buildout level of 65.3 CNEL, is a significant cumulative impact.

Had the RDEIR correctly identified the cumulative noise impact at the hotels, it would then have had to determine and assess whether or not the Walmart project makes a "considerable contribution" to that impact. Because it failed to identify the impact, it did not undertake the second step of the analysis. Therefore, we believe the analysis is inadequate.

Issue #3: FREIR Cumulative Considerable Contribution Analysis Logically Flawed

Comment No. 4-13 on the RDEIR states:

> The cumulative analysis uses the same FTA thresholds to determine whether the project-specific impact is significant and to determine whether the Project makes a considerable contribution to significant cumulative impacts. This approach is flawed because CEQA recognizes that individually minor (i.e., less than significant project specific impacts) may be a considerable contribution to a cumulatively significant impact.
> [FREIR at p. II-24, emphasis added]

The response to this comment begins:

> The City disagrees with the comment's claim that the City applied the same thresholds to determine whether the cumulative noise impact is significant and the project's incremental impact is cumulatively considerable. The City applied the same FTA methodology in making both determinations, but with very different thresholds.
>
> The Revised EIR's cumulative analysis compared total cumulative noise, including the incremental noise added by the Proposed Project, with baseline noise. The Revised EIR's analysis of whether the Proposed Project's incremental impact is cumulatively considerable examined the effect caused by adding the noise increase resulting solely from the Proposed Project to the total cumulative noise without the Proposed Project.
> [FREIR at p. II-24, emphasis added]

First, we note that the FREIR does not demonstrate that the City applied "very different thresholds" in the project-specific and cumulative analyses. At most, the FREIR response claims that the City applied the same FTA thresholds of significance but used different baselines: existing "baseline noise" for the project-specific analysis and "total cumulative noise without the Proposed Project" for the cumulative analysis. The FREIR response also obscures the fact that the cumulative analysis is necessarily made in two steps, which requires comparing two different noise increments to the FTA thresholds, using two different baselines.

More importantly, as we will demonstrate below, the RDEIR's repeated applications of the FTA methodology with different thresholds has the necessary result that it is impossible for any project that does not individually create a significant noise impact to ever be found to contribute considerably to a cumulative significant noise impact.

The RDEIR logic may be summarized as follows:

PROJECT-SPECIFIC ANALYSIS:
Determine if the project noise creates, by itself, a significant impact based on the FTA criteria in light of the existing baseline noise.

CUMULATIVE ANALYSIS:

Step One: Determine if all cumulative noise including the project noise creates a significant impact based on the FTA criteria in light of the existing baseline noise.

Step Two: If there is a significant cumulative impact, determine if the project noise makes a considerable contribution based on the FTA criteria in light of the cumulative noise without the project.

As stated above, the problem with this approach is that by using the FTA criteria multiple times in this manner it is *impossible* for the project noise to *ever* be found to be individually less than significant but nonetheless found to be a considerable contribution to a significant cumulative impact. Thus, the cumulative impact analysis with respect to the project is meaningless. This approach is simply not capable of determining that an individually minor project increment, i.e., an increment that is not found significant in the project-specific analysis, may nonetheless be a considerable contribution to a significant cumulative impact.

The simplest way to see this is to consider the basic presentation of the FTA impact criteria upon which the RDEIR relies. The RDEIR Figure IV.I-2 uses the equivalent "Noise Exposure Increase" presentation of these same criteria, but this point is much more easily understood using the FTA's basic formulation, which relates the project noise exposure alone to existing (baseline) noise exposure. The RDEIR also refers to a tabular presentation of these same criteria in its Table IV.I-7 (FTA Manual, Table 3-1 Excerpt). These are all just alternative presentations of the same basic criteria.

The figure below, taken from the FTA manual relied upon by the EIR, shows the basic FTA criteria formulation. In this form, one finds the intersection of the existing noise exposure on the abscissa with the project noise exposure on the ordinate. For the sake of illustration, consider the situation at Tucker Road north of Conway Avenue presented in the RDEIR at p. IV.I-27. The following information is given in the RDEIR discussion:

Existing 2009 Baseline Noise Level	63.6 dBA
Future Noise Level Including Walmart	65.4 dBA
Future Noise Level Excluding Walmart	64.7 dBA
Noise Level Caused By Walmart Alone	57.2 dBA

The noise level produced by other projects is not given explicitly, but may be calculated using the numbers given above. For example, the Future Noise Level Excluding Walmart is comprised of the Existing 2009 Baseline Noise Level and the Other Future Projects Noise Level, and since we know two of these, we can calculate the third. This can then be used to get the Walmart Plus Other Future Projects Noise Level:

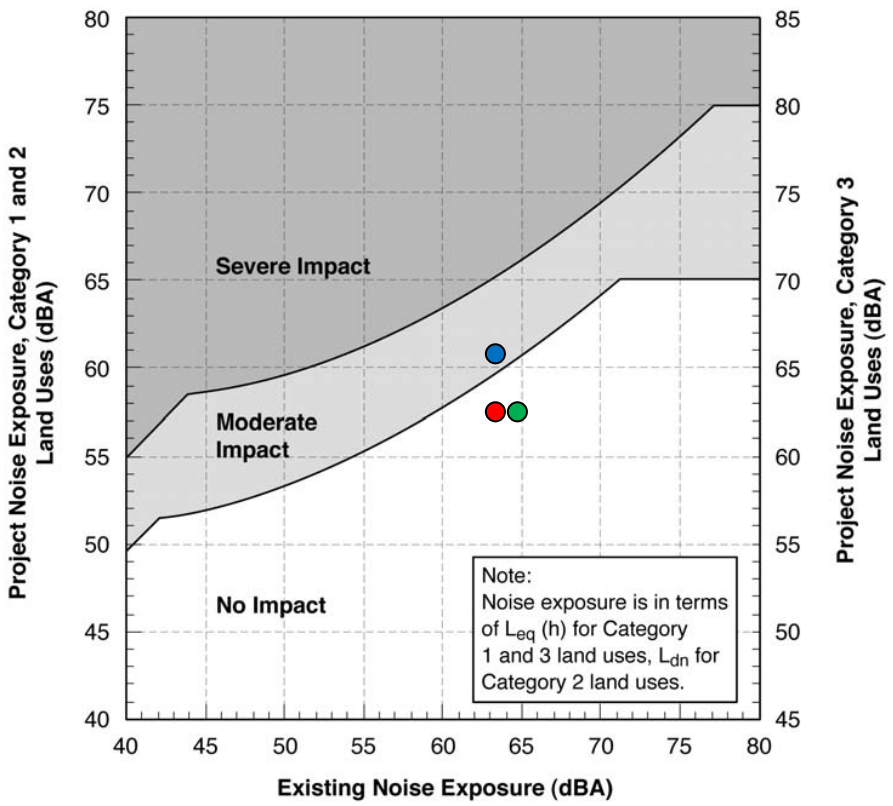
Other Future Projects Noise Level	58.2 dBA
Walmart Plus Other Future Projects Noise Level	60.7 dBA

In the project specific analysis, the Noise Level Caused By Walmart Alone (57.2 dBA) would be plotted against the Existing 2009 Baseline Noise Level (63.6 dBA) on the figure below (see the red dot) and the conclusion would be that the project itself does not create a significant impact.

In step one of the RDEIR cumulative analysis approach, the noise from the project would be combined with the noise from other future projects to arrive at the Walmart Plus Other Future Projects Noise Level (60.7 dBA) and assessed against the Existing 2009 Baseline Noise Level (63.6 dBA). This is represented by the blue dot on the graph below, and, in fact, the RDEIR correctly determined that there is a significant cumulative noise impact on Tucker Road north of Conway.

In step two of the RDEIR cumulative analysis approach, the Noise Level Caused By Walmart Alone (57.2 dBA) is assessed against a redefined baseline that combines the Existing 2009 Baseline Noise Level with the Other Future Projects Noise Level to get the Future Noise Level Excluding Walmart (64.7 dBA). In the graph below, this assessment is represented by the green dot.

Ordinate represents: Noise Level Caused By Walmart Alone in project-specific analysis and step two of cumulative analysis; and Walmart Plus Other Future Projects Noise Level in step one of cumulative analysis



Abscissa represents: Existing 2009 Baseline Noise Level in project specific analysis and step one of cumulative analysis; and Future Noise Level Excluding Walmart in step two of cumulative analysis

Ref: *FTA Transit Noise and Vibration Impact Assessment*, May 2006, p. 3-3

Here's the fatal flaw in this approach: the green dot will *always* be somewhere directly to the right of the red dot, and thus outside the impact zone, because it is located at the intersection of the project noise level (here, the Noise Level Caused By Walmart Alone) and the future noise level excluding the project (here, Future Noise Level Excluding Walmart). In almost every situation, including this one, the future noise level excluding the project will be greater than the existing baseline noise level, simply because noise levels usually increase as future projects are built. Thus, it is *impossible* for the RDEIR approach to ever find that project that does not individually create a significant noise impact could nonetheless be a considerable contributor to a cumulative noise impact.

As mentioned above, the RDEIR actually uses a different – but equivalent – formulation of the FTA criteria which obscures the logically necessary outcome illustrated on the graphical formulation presented here. What the RDEIR preparers may be thinking is that because the allowable increment measured in decibels from a project gets smaller as the baseline noise exposure gets larger, they are effectively using a more stringent criterion for the second step of their cumulative impact analysis. If so, the error in their thinking lies in the fact that if the increment a project adds to the existing noise exposure is less than significant under the FTA criteria, then the amount it adds to a higher future noise exposure (here, the redefined baseline of Future Noise Level Excluding Walmart used in the step two analysis) will necessarily be less than significant under the FTA criteria.

This would not necessarily be the case if decibels were an algebraic scale that adds "normally" (e.g., 2 + 2 = 4), but it is necessarily the case because decibels add logarithmically (60 dB + 60 dB = 63 dB). Because of the logarithmic nature of decibels, as a given noise level is added to increasingly larger baselines, the algebraic increase shrinks. Again, consider the situation at Tucker Road north of Conway:

Noise Level Caused By Walmart Alone	Existing 2009 Baseline Noise Level	Existing 2009 Baseline + Walmart (from RDEIR Table IV.I-4)	Algebraic increase
57.2 dBA	63.6 dBA	64.5 dBA	0.9 dB
Noise Level Caused By Walmart Alone	Future baseline, i.e., Future Noise Level Excluding Walmart	Future baseline + Walmart, i.e., Future Noise Level Including Walmart	Algebraic increase
57.2 dBA	64.7 dBA	65.4 dBA	0.7 dB

As this table shows, the amount that the Walmart traffic noise adds algebraically to the baseline decreases as the baseline increases. Thus, it is impossible for the traffic noise to be identified as a considerable contribution to a cumulative impact unless it is also identified as a project-specific impact – even though the allowable (algebraic) increase diminishes as the baseline increases.

As a practical matter, the RDEIR's approach provides an illusory cumulative analysis under any normal scenario in which future cumulative conditions are noisier than existing conditions and

the increment is due to both the project and other future projects. The analysis is illusory because it will *never* identify a considerable contribution to a significant cumulative impact unless the project-specific analysis also finds that the project, by itself, is a significant impact.

The RDEIR's failure to recognize that individually minor impacts may be a considerable contribution has a practical consequence here. Where future cumulative conditions are projected to be unacceptable, as here, and the problem is due to projected approvals of multiple future projects, none of which cause significant project-specific impacts, the RDEIR's approach will simply fail to address the problem.

For example, Tables IV.I-6 evaluating cumulative conditions for 14 related projects plus Walmart indicates that noise at Tucker Road north of Conway will experience a significant cumulative impact because noise will increase from 63.6 to 65.4 CNEL, an increase that is "substantial or excessive", and which results in a level that exceeds the applicable 65 CNEL standard. As indicated above, the Walmart project contributes sound energy of 57.2 dBA and the other 14 future projects contribute sound energy of 58.2 dBA. Thus, Walmart contributes 44% of the future sound energy that causes the substantial increase.[1] Furthermore, but for Walmart, the applicable 65 CNEL standard would not be exceeded and the increase would not be substantial. It is clear that Walmart's sound energy contribution is much larger than the individual contributions of the other 14 projects – approaching half of the total contribution of the 15 future projects that cause the significant cumulative impact. Yet the RDEIR does not recognize Walmart's contribution as considerable. As established in detail above, the RDEIR's cumulative analysis approach is fundamentally flawed and is incapable of ever determining that Walmart's contribution to the cumulative impact is considerable in this situation.

The RDEIR and FREIR indicate that future traffic under both "Listed Projects & Walmart" conditions and under General Plan buildout conditions will cause significant cumulative noise impacts. These cumulatively significant traffic noise impacts are due to projected increases in traffic from multiple predictable future projects. Although the Walmart project is a very large traffic-generating use for the City of Tehacahapi (for example, it requires extensive traffic impact mitigations), the RDEIR's approach to traffic noise analysis *cannot* find that it makes a considerable contribution unless it causes a significant impact by itself. Thus, the RDEIR's approach will never require mitigation from any project based only on its cumulative analysis, even though there is in fact a significant cumulative impact.

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[1] The RDEIR erroneously states that Walmart contributes only 37% of the increase. [RDEIR at p. IV.I-27.] The RDEIR's calculation is apparently based on dividing the total 1.9 dBA increase (from 63.6 CNEL to 65.4 CNEL) by the 0.7 dBA increase that would result from the Walmart project alone. As the RDEIR explains, sound levels expressed in decibels cannot be added together without converting them into their respective energies. [RDEIR at p. IV.I-27, note 31.] Similarly, arithmetic differences in sound levels such as the 1.9 dBA and 0.7 dBA increases cannot be divided without converting them into their respective energies. Thus, the proper calculation to determine Walmart's share of the sound energy of the 14 listed projects plus Walmart is 10^(57.2 dBA/10)/[10^(57.2 dBA/10) + 10^(58.2 dBA/10)] = 44%.

In effect, the RDEIR's approach provides no check on the prospect of significant cumulative noise impacts caused by multiple future projects, none of which would cause significant project-specific impacts, but all of which, taken together, will cause cumulatively significant noise impacts. However, the purpose of cumulative analysis is to address just such a situation. Our understanding is that the justification for a threshold of significance for "considerable contribution" must be based on the objective of actually addressing projected significant cumulative impacts, which requires that the threshold be realistically related to the number and scope of individual future projects. Here, the EIR has not demonstrated that its threshold was set with reference to any such projections. Indeed, as discussed, the threshold and analysis approach guarantee that even the City's largest future projects will not be required to abate or address cumulative noise impacts.

WILSON IHRIG & ASSOCIATES
ACOUSTICAL AND VIBRATION CONSULTANTS

CALIFORNIA NEW YORK

6001 SHELLMOUND STREET
SUITE 400
EMERYVILLE, CA 94608
Tel: 510-658-6719
Fax: 510-652-4441
www.wiai.com

DEREK L. WATRY, M.S.

Experience

Wilson, Ihrig & Associates, Inc. (1992 to Present)
Principal

Mr. Watry is experienced in all aspects of environmental acoustics, including noise measurement and prediction, regulatory analysis, environmental impact assessment, and noise control design. He is well versed in the requirements of CEQA, and has both prepared and critiqued many environmental noise studies. Over the past 18 years, he has conducted numerous construction, traffic, HVAC, and industrial equipment noise projects, and has extensive experience with construction noise and vibration monitoring.

University of California, Berkeley (1988 - 1992)
Graduate Student, Research and Teaching Assistant

Teaching Assistant for "Fundamentals of Acoustics" course

Education

M.S. (1991) in Mechanical Engineering, University of California at Berkeley
B.S. (1988) in Mechanical Engineering, University of California at San Diego
M.B.A. (2000), Saint Mary's College of California, Moraga

Professional Associations

Member, Acoustical Society of America
Member, National Council of Acoustical Consultants

Academic Distinctions

Summa Cum Laude, Saint Mary's College of California (2000)
National Science Foundation Fellowship Recipient (1988 - 1991)
Summa Cum Laude, University of California, San Diego (1988)

Representative Projects

Patterson Ranch EIR, Fremont
Noise section of EIR for 428 acre project that included residential, educational, religious, community recreation, and commercial land uses.

Mare Island Dredged Material Disposal Facility EIR, Vallejo
EIR noise study for proposed disposal facility to be built next to residential neighborhood.

Silva Ranch Annexation EIR, King City
EIR noise study for development of new, large, primarily residential, district on the outskirts of King City.

525 Golden Gate Avenue Demolition, San Francisco
Noise and vibration monitoring and consultation during the demolition of multi-story office building next to Federal, State, and Municipal Court buildings in San Francisco.

Tyco Electronics Annual Noise Compliance Study, Menlo Park
Conducted annual noise compliance monitoring for Tyco Electronics in 2009 and 2010. Provided letter critiquing the regulatory requirements and recommending improvements.

Safeway Redevelopment, Sunnyvale
Noise study of store redevelopment including loading dock, trash compactor, parking lot, and rooftop HVAC equipment.

Safeway Redevelopment, Los Altos
Noise study of store redevelopment including loading dock, trash compactor, rooftop parking lot, rooftop HVAC equipment, and Foothill Expressway traffic noise.

Central Park Apartments Noise Study, Mountain View
Noise study for new residential building development. Major noise sources included Central Expressway and Caltrain.

465 N. Whisman Road, Mountain View
Noise control among suites in a low-rise office complex.

Caltrain Centralized Equipment Maintenance and Operations Facility, San Jose
Noise study of impacts for new maintenance and operations facility built next to existing residential neighborhood. Included analysis of 16 ft sound barrier wall.

Conoco-Phillips Refinery Noise Control, Rodeo
Environmental noise study and assessment of refinery noise at residential neighborhood.

Groth Winery HVAC Sound Barrier, Oakville
Design of sound barriers to control noise from rooftop HVAC equipment.

Dahl Booster Pump Station, Palo Alto
Design of sound barrier and specification of mufflers for pump station equipment.