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March 17, 2025

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Re: Appeal Comment for the California Environmental Quality Act Class 32 Categorical Exemption for the 18434 West Vanowen Street Project (CPC-2022-8567-DB-CDO-SPR-VHCA; ENV-2022-8568-CE)

Dear Honorable Members of the Planning & Land Use Management Committee and Mr. Woon:

This comment is submitted on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") and its members living or working in the City of Los Angeles ("City"), regarding the appeal of the proposed California Environmental Quality Act ("CEQA") Class 32 Categorical Exemption for the 18434 West Vanowen Street Project (CPC-2022-8567-DB-CDO-SPR-VHCA; ENV-2022-8568-CE) ("Project"). The Project involves the demolition of an existing commercial building and carport, and the construction and use of a new, seven-story residential building with 95 dwelling units and two levels of parking, located at 18430-18434 West Vanowen Street, Los Angeles, CA 91335. The Los Angeles City Planning Commission ("CPC") approved the Project at its November 21, 2024 hearing and in its December 19, 2024 Letter of Determination.

On November 19, 2024, SAFER submitted written comments to the CPC providing that the CEQA Class 32 Categorical Exemption, or Infill Exemption ("Exemption"), which exempts the Project from further review under CEQA, does not apply to the Project because the Project will have significant adverse impacts on indoor air quality. This appeal comment supplements the prior SAFER comment and includes additional expert comments from (1) noise expert Ani Toncheva from the acoustical consulting firm Wilson Ihrig, and (2) air quality experts Matt Hagemann, P.G., C.Hg., and Dr. Paul Rosenfeld, Ph.D., from the environmental consulting firm

Soil/Water/Air Protection Enterprise ("SWAPE"). Ms. Toncheva's written comments and C.V. are attached as Exhibit A and are incorporated herein by reference in their entirety. SWAPE's written comments and C.V. are attached as Exhibit B and are incorporated herein by reference in their entirety.

After careful review, SAFER maintains its appeal that the Project does not qualify for the Infill Exemption because, as discussed below, (1) the Project will have significant adverse impacts on noise and air quality, and (2) the unusual circumstances exception to the Exemption applies. Instead, further CEQA review, either through a mitigated negative declaration ("MND") or environmental impact report ("EIR"), is required to analyze and mitigate these impacts before project approval. SAFER thus respectfully requests that the Planning & Land Use Management ("PLUM") Committee require the City to prepare an MND or EIR for the Project and find that the Infill Exemption does not apply.

I. LEGAL STANDARD

CEQA mandates that "the long-term protection of the environment . . . shall be the guiding criterion in public decisions" throughout California. (Public Resources Code ["PRC"] § 21001(d).) A "project" is "the whole of an action" directly undertaken, supported, or authorized by a public agency "which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (PRC § 21065; 14 California Code of Regulations ["CCR"] § 15378(a).) CEQA requires environmental factors to be considered at the "earliest possible stage . . . before [the project] gains irreversible momentum," (*Bozung v. Loc. Agency Formation Com*. (1975) 13 Cal. 3d 263, 284), "at a point in the planning process where genuine flexibility remains." *(Sundstrom v. Mendocino County* (1988) 202 Cal.App.3d 296, 307.)

To achieve its objectives of environmental protection, CEQA has a three-tiered structure. (14 CCR § 15002(k); *Committee to Save the Hollywoodland Specific Plan v. City of Los Angeles* (2008) 161 Cal.App.4th 1168, 1185-86 ["*Hollywoodland*"].) First, if a project falls into an exempt category, or if it can be seen with certainty that the activity in question will not have a significant effect on the environment, no further evaluation is required under CEQA. (14 CCR § 15002(k)(1).) Second, if the project is not exempt, and there is a possibility the project will have a significant environmental effect, then the agency must perform an initial threshold study. (14 CCR § 15002(k)(2).) Third, if the initial study indicates that there is no substantial evidence that the project may have a significant environmental effect (*id*.), then a mitigated negative declaration ("MND") is required, but if the initial study shows that the project may have a significant environmental effect, then an environmental impact report ("EIR") is required. (14 CCR § 15002(k)(3).) Here, because the City exempted the Project from CEQA entirely, the first step of the CEQA process applies.

CEQA identifies certain classes of projects as exempt from CEQA's provisions. These are called categorical exemptions. (14 CCR §§ 15300, 15354.) "Exemptions to CEQA are narrowly construed and '[e]xemption categories are not to be expanded beyond the reasonable

scope of their statutory language.' [Citations]." (*Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 125.) The determination as to the appropriate scope of a categorical exemption is a question of law subject to independent, or de novo, review. (*San Lorenzo Valley Community Advocates for Responsible Education v. San Lorenzo Valley Unified School Dist.* (2006) 139 Cal. App. 4th 1356, 1375 ["[Q]uestions of interpretation or application of the requirements of CEQA are matters of law. [Citations.] Thus, for example, interpreting the scope of a CEQA exemption presents 'a question of law, subject to de novo review by this court.'"].) Here, the City has recommended that the Project is categorically exempt from CEQA's requirements pursuant to the Class 32 Exemption, or "Infill Exemption." (14 CCR § 15332.)

Under CEQA's Infill Exemption, a project is exempt from CEQA's requirements if the project meets the following five conditions:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
(c) The project site has no value, as habitat for endangered, rare, or threatened species.
(d) ***Approval of the project would not result in any significant effects relating to*** traffic, ***noise***, ***air quality***, or water quality.
(e) The site can be adequately served by all required utilities and public services.

(14 CCR § 15332 [emph. added].) Importantly, mitigated categorical exemptions are not allowed. (*Salmon Protection & Watershed Network v. County of Marin* (2004) 125 Cal.App.4th 1098, 1102 ["*SPAWN*"]; *Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster* (1997) 52 Cal.App.4th 1165, 1200 ["*Azusa*"].) Agencies may not rely on mitigation measures as a basis for concluding that a project is categorically exempt, or as a basis for determining that one of the significant effects exceptions does not apply.

II. DISCUSSION

A. CEQA's Infill Exemption does not apply on its face to the Project and thus a full CEQA analysis is required.

The CPC has determined that the CEQA Infill Exemption applies to the Project. The Exemption does not apply on its face if the project will have any significant effects related to traffic, noise, air quality, or water quality. (14 CCR § 15332(d).) Here, the Exemption does not apply to the Project on its face because the Project will have significant adverse impacts on noise and air quality. Therefore, the City must prepare an initial study to determine the appropriate level of CEQA review of these impacts before approval, whether an MND or an EIR.

1. The Project will have significant adverse impacts on noise, precluding reliance

on the Infill Exemption.

Noise expert Ani Toncheva from the acoustical consulting firm Wilson Ihrig has reviewed the November 2024 Staff Report, Categorical Exemption Justification Report ("CER"), and Noise Technical Report ("Noise Report") the City prepared for the Project. As discussed below, Ms. Toncheva concluded that the Project will significantly affect noise levels because (1) the CER's noise analysis relies on a noise baseline that was improperly established; (2) the Project will result in potentially significant construction noise impacts; and (3) the Noise Report's operational noise analysis is incomplete. Thus, Ms. Toncheva's expert comments constitute substantial evidence that the Project will have significant adverse impacts on noise.

a. The City's noise analysis relies on an improperly established noise baseline.

Ms. Toncheva found that the manner in which the CER determined the existing noise baseline was flawed. The noise section of the CER claims that sensitive receptors are located 1,000 feet from the Project site, whereas the Noise Report shows that the closest residence, 6727 Darby Avenue, is only 20 feet away. (CER at 16; Noise Report at 8; Ex. A at 3.) The Noise Report shows that no noise measurements were made at the closest residence. (Noise Report at 10.) Instead, the closest measurements were taken on Darby Avenue, where traffic levels would be lower, rather at the back of the buildings close to the Project. (Ex. A at 3.) Furthermore, the ambient noise levels the City reported were based on short-term, 20-minute measurements. (*Id.*; Noise Report at 10.) However, ambient noise levels fluctuate throughout the day and change based on distance and relative location from the Project site. (Ex. A at 3.) The City's 20-minute measurements account for neither fluctuations in noise over the course of the day nor adjustments with distance from the sources studied. (*Id.*) Therefore, Ms. Toncheva concluded that the City must conduct properly documented ambient measurements near sensitive receptors in an MND or EIR to capture the baseline ambient noise conditions across the day to determine the impact of construction and operational noise.

b. There is substantial evidence that the Project will result in potentially significant construction noise impacts.

Ms. Toncheva concluded that the City failed to disclose and mitigate the Project's potentially significant construction noise impacts. The City performed the construction analysis using a SoundPLAN model ("Model"), which uses an area noise source for the entire construction site. (*Id*. at 4; Noise Report at 14.) Ms. Toncheva explained that this Model effectively lowers the predicted noise levels by averaging out the sound across the entire site. (Ex. A at 4.) Additionally, Ms. Toncheva found it unclear which reference noise levels were used for the predictions. (*Id*.) The Noise Report mentioned that equipment will be occasionally idle but provided no assumptions on usage factors or the individual equipment to be used. (*Id.*; Noise Report at 13.)

The City's SoundPLAN model used noise contours to represent demolition and grading work. (Noise Report at 13; Ex. A at 4.) The Model also only showed building outlines, not

specific noise receptor locations. (Noise Report at 13; Ex. A at 4.) The Model showed a 75 dBA contour touching the nearest residential building, 6727 Darby Avenue. (Noise Report at 13; Ex. A at 4.) However, Table 5 of the Noise Report showed a much lower noise level, 35.7 dBA, at 6727 Darby Avenue. (Noise Report at 13; Ex. A at 4.) The Report claimed that these predictions included "best practices" like sound barriers, but it did not quantify what mitigation was applied, and the Model did not show any such barriers. (Ex. A at 4.) Ms. Toncheva concluded that it is highly unlikely that this discrepancy between the 75 dBA noise contour in the Model and the 36 dBA level in Table 5 is from the effect of a noise barrier. (*Id*.) Additionally, Ms. Toncheva calculated that construction noise of 75 dBA is 19.5 dB above the ambient noise level measured at a sensitive receptor site on the east side of 6727 Darby Avenue. (*Id*.) As discussed in the Noise Report, a 5- to 10-dBA increase, depending on the duration of the construction activity, is considered significant. (Noise Report at 11.) Moreover, a 10-dB increase is subjectively heard as an approximate doubling in loudness. (Ex. A at 4.)

Because the Noise Report provided no reference noise levels, and there is a discrepancy between the levels shown in the Model and Table 5 of the Report, Ms. Toncheva also estimated construction noise levels for grading, incorporating the reference levels and usage factors for the equipment typically used during grading from the Federal Highway Administration Roadway Construction Noise Model as comparison. (*Id*. at 5.) Ms. Toncheva found that construction noise levels are 84 to 89 dBA for individual equipment at 6727 Darby Avenue, 20 feet from the site, and 64 to 69 dBA at 6751 Darby Avenue, 200 feet from the site. (*Id*.) Combined activity levels are 95 dBA and 75 dBA at these two receptors, ranging as high as 39 dB above measured ambient levels. (*Id*.)

The City did not discuss construction mitigation measures for any of these potentially significant noise impacts. (*Id*.) Ms. Toncheva estimates that noise barriers at the perimeter of the Project site could provide 10 to 15 dB of noise reduction, depending on the site geometry and barrier construction. (*Id*.) She notes, however, that contractors are often reluctant to employ barriers because they slow production. (*Id*.) Thus, the City must prepare an MND or EIR to properly evaluate construction noise impacts, including the construction noise increase over ambient levels at sensitive receptor locations. (*Id*.) If the increase is significant, then the City must properly evaluate mitigation measures to reduce the impacts to less-than-significant.

c. The City's operational noise analysis is incomplete.

Lastly, Ms. Toncheva found that the City failed to provide a proper quantitative analysis of operational noise. The Noise Report claimed, without evidence, that the Project will have no operational noise impact. The Report identified HVAC noise as a potential source of operational noise but fails to offer any numerical assessment of predicted mechanical noise levels. (Noise Report at 23; Ex. A at 6.) The CER also mentioned a ground floor oil transformer that is neither evaluated nor mentioned in the Noise Report. (CER at 18; Ex. A at 6.) Furthermore, the Report fails to address noise from the parking garage entrance or ventilation system. (Ex. A at 6.) Thus, the Project's operational noise must be properly evaluated in an MND or EIR.

2. The Project will have significant adverse impacts on air quality, precluding reliance on the Infill Exemption.

Air quality experts Matt Hagemann, P.G., C.Hg., and Dr. Paul Rosenfeld, Ph.D., from the environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE") have reviewed the November 2024 Staff Report, Categorical Exemption Justification Report ("CER"), and Air Quality Technical Report ("AQ Report") the City prepared for the Project. As discussed below, SWAPE concluded that the Project will significantly affect air quality because (1) the City inadequately evaluated the Project's diesel particulate matter ("DPM") emissions; (2) the Project will have significant impacts related to air pollutant health risks that the City failed to adequately address; and (3) the Project requires mitigation measures to reduce its DPM emissions. SWAPE recommends that a "full analysis, compliant with the California Environmental Quality Act . . . requirements, should be prepared to adequately assess and mitigate the health risk impacts that the project may have on the surrounding community." (Ex. B at 1.)

a. The City inadequately evaluated diesel particulate matter ("DPM") emissions.

SWAPE found that the City failed to conduct a construction or operational health risk analysis ("HRA"). (Ex. B at 1.) Instead, based on conservative modeling assumptions, the City merely asserted that the Project would produce minimal emissions of diesel particulate matter ("DPM"), a known human carcinogen, and that the Project's toxic air contaminant ("TAC") emissions would be less than significant. (*Id*. at 1-2.)

SWAPE highlighted that CEQA requires agencies to make "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." (*Id*. at 2; *see Sierra Club v. Cnty. of Fresno* (2018) 6 Cal.5th 502.) Additionally, CEQA Guidelines § 15332 specify that a project can only qualify for the Infill Exemption if it will not result in significant effects on air quality, among other things. (14 CCR § 15332(d).) Therefore, to establish consistency with the Infill Exemption criteria, the City should have performed a construction and operational HRA to evaluate the health risks posed to nearby sensitive receptors from the Project's construction DPM emissions. (Ex. B at 2.) Furthermore, SWAPE found that the City failed to compare the Project's excess cancer risk to the South Coast Air Quality Management District's ("SCAQMD") specific significance threshold of 10 per million. (*Id*.) Thus, to align with the most recent guidance, a comprehensive HRA should be prepared in an MND or EIR to evaluate the potential health impacts of the Project's construction and operation emissions on nearby sensitive receptors.

b. There is substantial evidence that the Project will have significant impacts related to air pollutant health risks that the City failed to adequately address.

SWAPE performed a preliminary HRA of the Project's construction health risk impact on sensitive residential receptors using AERSCREEN, a screening-level air quality dispersion model, and the City's total annual particulate matter estimates from its California Emissions

Estimator Model ("CalEEMod"). (*Id*.) The CalEEMod showed that the Project's construction activities will produce about 1,039 pounds of DPM over the 2-year construction period. (*Id*.) SWAPE found that the maximally exposed individual receptor ("MEIR") is approximately 100 meters (328 feet) south of the Project site. (*Id*. at 3.) According to the City's Staff Report, the site is also located directly adjacent to a multi-family residential building. (*Id*.)

SWAPE calculated the Project's excess cancer risk to the MEIR using applicable HRA methodologies from the Office of Environmental Health Hazard Assessment, as recommended by SCAQMD. (*Id*.) SWAPE found that, over the Project's 2-year construction period, the excess cancer risks at the MEIR about 100 meters from the site are approximately 14.9 per million for the third trimester of pregnancy and 315 per million for infants. (*Id*. at 5.) Additionally, SWAPE found that the excess cancer risk during a residential lifetime of 30 years is about 330 per million. (*Id*.) The third trimester, infant, and lifetime cancer risks all exceed the SCAQMD threshold of 10 per million, resulting in a potentially significant impact that the City failed to identify. (*Id*.) Thus, the Project's construction could pose significant health risks, and a full CEQA analysis should be prepared, including a comprehensive HRA. (*Id*.)

c. The Project requires mitigation measures to reduce its DPM emissions.

To address the Project's health risks, the City must review all feasible mitigation measures. (*Id*. at 6.) SWAPE offers various mitigation measures the City could implement to reduce the DPM emissions from Project construction. Such measures include, among other things, minimization of unnecessary vehicular and machinery activities, utilization of clean fuel generators and existing power sources, use of alternative fuel and electric equipment, and required implementation of Tier 4 equipment or better for all engines above 50 horsepower. (*Id*.) SWAPE states that a "full CEQA analysis should be conducted that includes all feasible mitigation measures, along with the preparation of an HRA, to ensure emissions are reduced to the maximum extent feasible." (*Id*. at 7.)

B. The Project does not qualify for CEQA's Infill Exemption due to the Unusual Circumstances Exception.

The Unusual Circumstances Exception ("Exception") prohibits categorical exemptions where there is a "reasonable possibility" that a project will significantly impact the environment "due to unusual circumstances." (14 CCR § 15300.2(c).) To determine whether the Exception applies, agencies use a two-part test. They first ask whether a project presents unusual circumstances. If it does, they then ask whether there is a reasonable possibility that a significant environmental effect will result from those unusual circumstances. (*Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1098.) The California Supreme Court has held that "a party may establish an unusual circumstance with evidence that the project *will* have a significant environmental effect." (*Id.* at 1105 [emph. added].) That evidence, if convincing, necessarily also establishes a reasonable possibility that the project will significantly affect the environment due to those unusual circumstances. (*Id.*)

As discussed above, we have submitted substantial evidence that the Project will have significant adverse impacts on noise and air quality. The fact that these impacts will occur constitutes an unusual circumstance, thereby precluding the City's determination that the Exemption applies to the Project.

III. CONCLUSION

The City cannot rely on a CEQA Infill Exemption because the Project does not meet the terms of the Exemption. Instead, in accordance with CEQA, the City must prepare an initial study, followed by either an MND or EIR, to examine the Project's adverse environmental effects before approval. Therefore, SAFER respectfully requests that the PLUM Committee find that the Project does not qualify for the Infill Exemption under CEQA.

Sincerely,

Hayley Uno
LOZEAU DRURY LLP

EXHIBIT A

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION

CALIFORNIA
WASHINGTON
NEW YORK

WI #24-002.26

January 7, 2025

Hayley Uno
Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

SUBJECT: 18434 Vanowen Street
City of Los Angeles, CA
Review and Comment on Noise Study

Dear Ms. Uno,

Per your request, Wilson Ihrig has reviewed the information and noise impact analysis in the following documents:

18434 Vanowen Street Project
Staff Report, Exhibit C, Categorial Exemption – Class 32, October 2024 (CER)
Noise Technical Report (Noise Report)

The Proposed 18434 Vanowen Street Project (Project) would result in the construction of a residential development consisting of a six-story building with two levels of parking. The project is surrounded by some residential uses, as well as commercial and industrial properties.

This letter reports our comments on the Categorical Exemption Report (CER) accompanying Noise Technical Report, both attached to the Project Staff Report. Wilson Ihrig, Acoustical Consultants, has practiced exclusively in the field of acoustics since 1966. During our 57 years of operation, we have prepared hundreds of noise studies for Environmental Impact Reports and Statements. We have one of the largest technical laboratories in the acoustical consulting industry. We also utilize industry-standard acoustical programs such as Roadway Construction Noise Model (RCNM), SoundPLAN, and CADNA. In short, we are well qualified to prepare environmental noise studies and review studies prepared by others.

Adverse Effects of Noise[1]

Although the health effects of noise are not taken as seriously in the United States as they are in other countries, they are real and, in many parts of the country, pervasive.

Noise-Induced Hearing Loss. If a person is repeatedly exposed to loud noises, he or she may experience noise-induced hearing impairment or loss. In the United States, both the Occupational Health and Safety Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) promote standards and regulations to protect the hearing of people exposed to high levels of industrial noise.

Speech Interference. Another common problem associated with noise is speech interference. In addition to the obvious issues that may arise from misunderstandings, speech interference also leads to problems with concentration fatigue, irritation, decreased working capacity, and automatic stress reactions. For complete speech intelligibility, the sound level of the speech should be 15 to 18 dBA higher than the background noise. Typical indoor speech levels are 45 to 50 dBA at 1 meter, so any noise above 30 dBA begins to interfere with speech intelligibility. The common reaction to higher background noise levels is to raise one's voice. If this is required persistently for long periods of time, stress reactions and irritation will likely result.

Sleep Disturbance. Noise can disturb sleep by making it more difficult to fall asleep, by waking someone after they are asleep, or by altering their sleep stage, e.g., reducing the amount of rapid eye movement (REM) sleep. Noise exposure for people who are sleeping has also been linked to increased blood pressure, increased heart rate, increase in body movements, and other physiological effects. Not surprisingly, people whose sleep is disturbed by noise often experience secondary effects such as increased fatigue, depressed mood, and decreased work performance.

Cardiovascular and Physiological Effects. Human's bodily reactions to noise are rooted in the "fight or flight" response that evolved when many noises signaled imminent danger. These include increased blood pressure, elevated heart rate, and vasoconstriction. Prolonged exposure to acute noises can result in permanent effects such as hypertension and heart disease.

Impaired Cognitive Performance. Studies have established that noise exposure impairs people's abilities to perform complex tasks (tasks that require attention to detail or analytical processes) and it makes reading, paying attention, solving problems, and memorizing more difficult. This is why there are standards for classroom background noise levels and why offices and libraries are designed to provide quiet work environments.

[1] More information on these and other adverse effects of noise may be found in *Guidelines for Community Noise*, eds B Berglund, T Lindvall, and D Schwela, World Health Organization, Geneva, Switzerland, 1999. (https://www.who.int/docstore/peh/noise/Comnoise-1.pdf)

Baseline Noise is Not Properly Established

The manner in which the CER has determined the existing noise environment is unsupported. The noise section of the CER claims that sensitive receptors are located 1000 feet from the project site [CER, pg. 16], even though the Noise Report shows the closest residence, 6727 Darby Avenue, being only 20 feet away [Noise Report, pg. 8]. Further, Table 3 [Noise Report pg. 10] indicates that no measurement was made at this residence. The closest measurements C and D (shown in Figure 1 below) were taken at Darby Avenue, not in the back of the buildings close to the project, where traffic noise levels would be lower, while other industrial sources may dominate.

Further, the ambient levels presented in Table 3 are based on short-term 20-minute measurements. The ambient would fluctuate over the course of each day as well as based on distance and relative location from the site. The measurements used account for neither fluctuation over the course of the day nor adjustment with distance from the sources captured.

The Project must conduct properly documented ambient measurements near sensitive receptors that capture the current baseline conditions during quiet period of the day and night to determine the impact of construction and operational noise.

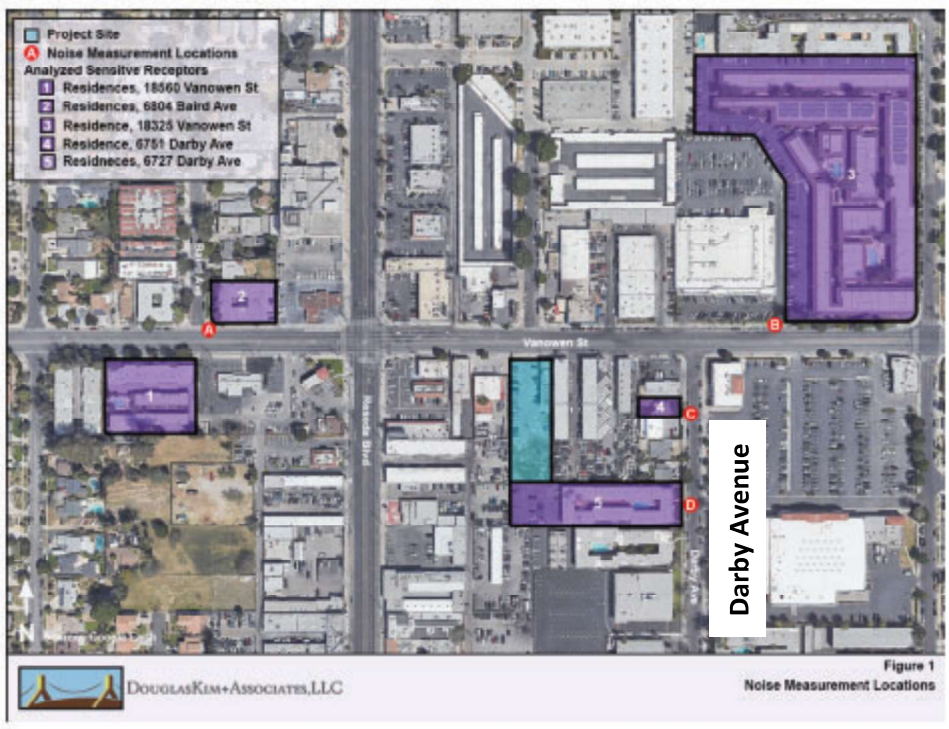

Figure 1 Project Site and Noise Sensitive Receivers

Potentially Significant Construction Noise Impacts

The CER fails to disclose and mitigate the Project's potentially significant construction noise impacts. The construction analysis was done using a SoundPLAN model. As shown in Figure 2 of the Noise Report (reproduced below), the model uses an area source for the entire construction site [Noise Report, pg. 14]. This effectively lowers the projected levels by averaging out the sound across the site. Further, it's not clear what reference noise levels were used for the predictions. The report mentions that equipment will be occasionally idle [pg. 13] but gives no assumptions on usage factors or individual equipment to be used.

The noise contours in Figure 2, which represent demolition and grading work [pg. 13], show the 75 dBA contour touching the nearest residential building. Table 5 below it shows a much lower level – 35.7 dBA – at 6727 Darby Avenue. The figure does not show receptor locations, only building outlines. The report states that these predictions include "best practices" like sound barriers, but does not quantify what mitigation was applied and Figure 2 does not show any barriers. It is highly unlikely the discrepancy between the 75 dBA noise contour and the 36 dBA level shown in Table 5 is due to the effect of a noise barrier. Construction noise of 75 dBA is 19.5 dB above the measured ambient at location D. As discussed in the Noise Report, a 5 to 10 dBA increase, depending on the duration of the construction activity, is considered to be significant [pg. 11]. A 10-dB increase is subjectively heard as an approximate doubling in loudness.

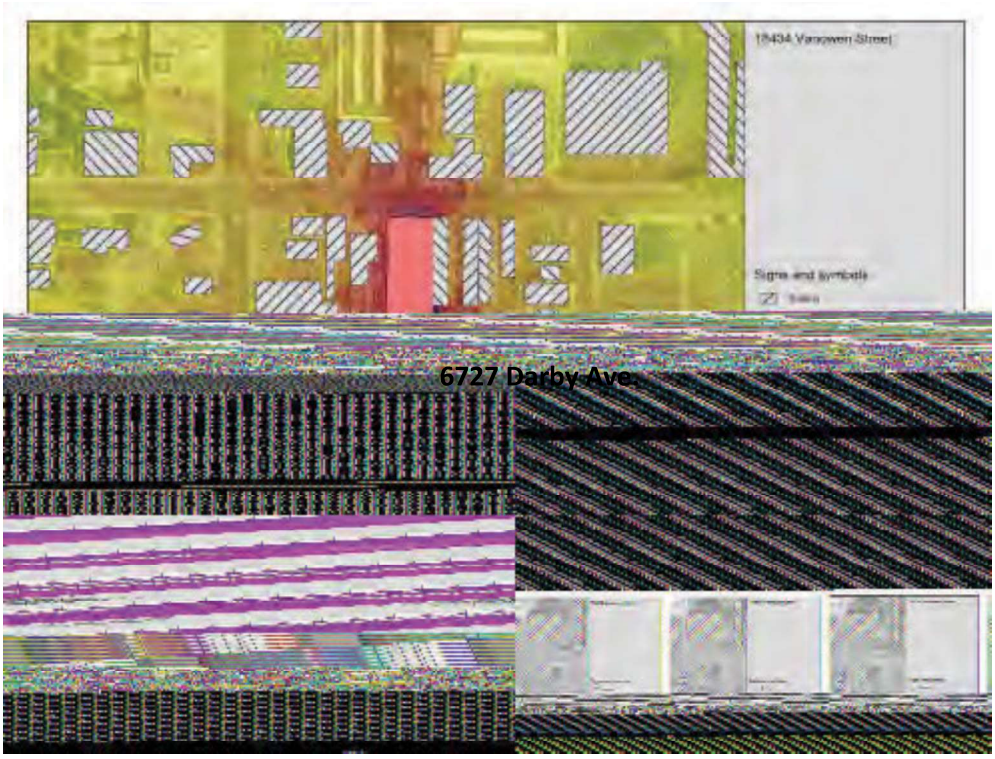

Figure 2 Noise Report Construction Noise Sound Contours

Since no reference levels were provided in the Noise Report and there is a discrepancy between the levels shown in Figure 2 and Table 5 in the report, Table 1 below shows estimated construction levels for grading, using reference levels and usage factors for equipment typically used during this type of activity provided by the Federal Highway Administration Roadway Construction Noise Model (RCNM) for comparison. As shown, estimated levels are 84 to 89 dBA for individual equipment at 6727 Darby Avenue (20 feet from the site) and 64 and 69 dBA at 6751 Darby Avenue (200 feet from the site). Combined activity levels are 95 dBA and 75 dBA at these two receptors, as high as 39 dB above measured ambient levels.

Table 1 Estimated Construction Noise Levels at 6727 Darby Avenue

Phase	Equipment	Lmax at 50ft (dBA)[1]	Distance to Receiver (ft)[2]	Lmax at Closest Receiver (dBA)[3]	RCNM Usage Factor (%)[1]	Leq at Closest Receiver (dBA)	Increase Over Ambient (dB)
Grading at 6727 Darby Avenue	grader	85	20	93	40	89	33
	bulldozer	85	20	93	40	89	33
	trucks	84	20	92	40	88	32
	backhoe	80	20	88	40	84	28
	trenching equipment	82	20	90	50	87	31
						95	**39**
Grading at 6751 Darby Avenue	grader	85	200	73	40	69	13
	bulldozer	85	200	73	40	69	13
	trucks	84	200	72	40	68	12
	backhoe	80	200	68	40	64	8
	trenching equipment	82	200	70	50	67	11
						75	**19**

1. From RCNM
2. Calculated based on distance using 20*log(distance / 50 feet)

The CER does not discuss construction mitigation measures for any of these potentially significant noise impacts. Noise barriers at the parameter of the site could provide 10 to 15 dB of reduction, depending on site geometry and barrier construction, however, contractors are often reluctant to employ barriers because they slow production.

The Project must properly evaluate construction noise impacts, including the noise increase over ambient levels at sensitive receptor locations. If the increase is significant the Project must properly evaluate mitigation measures to reduce the impacts to less than significant.

Operational Analysis Incomplete

The Noise Report claims with no evidence that there is no operational noise impact. The report identifies HVAC noise as a potential operational noise source [pg. 23] but does not provide any quantitative analysis of predicted levels from mechanical noise. The CER mentions a ground floor oil transformer [CER, pg. 18], which is not evaluated or mentioned in the Noise Report. Further, the report does not address noise from the parking garage entrance or ventilation system.

Conclusion

The Project may result in potentially significant construction noise impacts. The CER relies on an inadequate baseline, based on short-term measurement not located at sensitive receivers. Finally, the CER fails to provide a proper quantitative analysis of operational noise.

Please feel free to contact me with any questions on this information.

Very truly yours,
Ani Toncheva, Senior Consultant, WILSON IHRIG

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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December 26, 2024

Hayley Uno
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Subject: Comments on the 18434 Vanowen Street Infill Residential Project

Dear Ms. Uno

We have reviewed the November 2024 Recommendation Report ("Staff Report") for the 18434 Vanowen Street Infill Residential Project ("Project") located in the City of Los Angeles. The Project proposes to construct a 90,112-square-foot residential development, including 94-residential units and 102 parking spaces on the 0.67-acre site.

Our review concludes that the Staff Report fails to adequately evaluate the Project's health risk impacts. The Project's construction and operation emissions and associated health risks may be underestimated and not properly addressed. A full analysis, compliant with the California Environmental Quality Act ("CEQA") requirements, should be prepared to adequately assess and mitigate the health risk impacts that the project may have on the surrounding community.

Air Quality

Diesel Particulate Matter Emissions Inadequately Evaluated

The Categorical Exemption Justification ("Justification"), included as Exhibit C of the Staff Report, asserts that the Project qualifies for a Class 32 Categorical Exemption under the California Environmental Quality Act ("CEQA"), stating it is "appropriate to determine this [P]roject is categorically exempt from the requirements of CEQA" (p. 27). CEQA Guidelines § 15332 specify that a project can only qualify for this exemption if it will not result in significant effects on traffic, noise, air quality, or water quality.[1] The Staff Report fails to conduct a construction or an operational health risk analysis ("HRA"), stating that

[1] "Infill Development Projects." CEQA, *available at:* https://planning.lacity.gov/odocument/ad70d15e-11b8-49ef-aba3-b168f670a576/Class%2032%20Categorical%20Exemption.pdf.

Project would produce minimal diesel particulate matter ("DPM") emissions, based on conservative modeling assumptions, and that the Project's toxic air contaminant emissions would be less than significant (p. 4).

CEQA requires that Project's display "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences."[2] Thus, a construction and operational HRA should have been conducted to evaluate the health risks posed to nearby sensitive receptors from the Project's construction DPM emissions to establish consistency with the Class 32 Categorical Exemption criteria. Additionally, The Staff Report fails to compare the Project's excess cancer risk to the South Coast Air Quality Management District's ("SCAQMD") specific numeric threshold of 10 in one million.[3] To align with the most recent guidance, a comprehensive HRA should be prepared to evaluate the potential impacts of Project construction and operation on nearby existing receptors.

Screening-Level Analysis Demonstrates Potentially Significant Health Risk Impact

To conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[4] AERSCREEN uses a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If a potentially unacceptable air quality hazard is determined, a more refined modeling approach should be conducted prior to Project approval.

We conducted a preliminary HRA of the Project's construction health risk impact to residential sensitive receptors using the annual particulate matter 10 ("PM_{10}") total estimates from the Staff Report's "18434 Vanowen Street (Future)" California Emissions Estimator Model ("CalEEMod") model. PM_{10} exhaust values are typically used to generate the most conservative AERSCREEN outputs; however, the Project's CalEEMod model does not provide PM_{10} exhaust values, so the Project's PM_{10} total values were utilized for modeling purposes instead. Consistent with recommendations set forth by the Office of Environmental Health Hazard Assessment ("OEHHA"), we assumed residential exposure begins during the third trimester stage of life.[5] The Staff Report's CalEEMod model indicates that construction activities will generate approximately 1,039 pounds of DPM over the 729-day construction period.[6] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. We calculated an average DPM emission rate to account for the variability in equipment usage and truck trips over Project construction through the following equation:

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[2] "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, a*vailable at:* https://ceqaportal.org/decisions/1907/Sierra%20Club%20v.%20County%20of%20Fresno.pdf.
[3] "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, March 2023, *available at*: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25.
[4] "Air Quality Dispersion Modeling - Screening Models," U.S. EPA, *available at:* https://www.epa.gov/scram/air-quality-dispersion-modeling-screening-models.
[5] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[6] See Attachment A for health risk calculations.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{1039.1\ lbs}{729\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00748\ g/s}$$

The construction emission rate is approximately 0.00748 grams per second ("g/s"). An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of the Los Angeles was obtained from U.S. 2023 Census data.[7]

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. The U.S. Environmental Protection Agency ("U.S. EPA") suggests that the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10% in screening procedures.[8] According to the AERSCREEN output files, the Maximally Exposed Individual Receptor ("MEIR") is located approximately 100 meters downwind of the Project site. Review of the Staff Report reveals that the Project site is located directly adjacent to an existing multi-family residential building (p. A-4). The single-hour concentration estimated by AERSCREEN for Project construction is therefore approximately 10.90 µg/m^3 DPM at approximately 100 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 1.090 µg/m^3 for Project construction at the MEIR.[9]

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SCAQMD.[10] Guidance from OEHHA and the California Air Resources Board recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters used for the various age groups in our screening-level HRA are as follows:

[7] "Los Angeles." U.S. Census Bureau, 2023, *available at:* https://datacommons.org/place/geoId/0644000.
[8] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." U.S. EPA, October 1992, *available at:* https://www.epa.gov/sites/default/files/2020-09/documents/epa-454r-92-019_ocr.pdf.
[9] See Attachment B for AERSCREEN output files.
[10] "AB 2588 and Rule 1402 Supplemental Guidelines." SCAQMD, October 2020, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19, p. 2.

Exposure Assumptions for Residential Individual Cancer Risk						
Age Group	**Breathing Rate** (L/kg-day)[11]	**Age Sensitivity Factor**[12]	**Exposure Duration** (years)	**Fraction of Time at Home**[13]	**Exposure Frequency** (days/year)[14]	**Exposure Time** (hours/day)
3rd Trimester	361	10	0.25	0.85	350	24
Infant (0 – 2)	1090	10	2	0.85	350	24
Child (2 – 16)	572	3	14	0.72	350	24
Adult (16 – 30)	261	1	14	0.73	350	24

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day^{-1}) to derive the cancer risk estimate. Therefore, to assess exposures, we used the following dose algorithm:

$$Dose_{AIR,per\ age\ group} = C_{air} \times EF \times \left[\frac{BR}{BW}\right] \times A \times CF$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
C_{air} = concentration of contaminant in air (µg/m3)
EF = exposure frequency (number of days/365 days)
BR/BW = daily breathing rate normalized to body weight (L/kg/day)
A = inhalation absorption factor (default = 1)
CF = conversion factor (1x10-6, µg to mg, L to m3)

The following equation was used to calculate the total cancer risk for each appropriate age group:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

where:

[11] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[12] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5 Table 8.3.
[13] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5, Table 8.4.
[14] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-24.

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
CPF = cancer potency factor, chemical-specific $(mg/kg/day)^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (always 70 years)

The annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years), and the first 1.75 years of the infantile (0 – 2) stage of life, consistent with the 729-day construction schedule.

The Maximally Exposed Individual at an Existing Residential Receptor During Construction

Age Group	**Emissions Source**	**Duration** (years)	**Concentration** (ug/m3)	**Cancer Risk**
3rd Trimester	Construction	0.25	1.0990	1.49E-05
Infant (0 - 2)	Construction	1.75	1.0990	3.15E-04
Construction		**2**		**3.30E-04**

The excess cancer risks for the 3rd trimester of pregnancy and infants at the MEIR located approximately 100 meters away, over the course of Project construction, are approximately 14.9 and 315 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) is approximately 330 in one million. The third trimester, infant, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million, resulting in a potentially significant impact not previously addressed or identified by the Staff Report or associated documents.

Our screening-level HRA is intentionally conservative, prioritizing health protection by assessing the potential connection between Project-generated emissions and adverse health risks. The U.S. EPA recommends the use of a screening-level analysis as the first phase of a tiered to conducting exposure assumptions, as outlined in their Exposure Assessment Guidelines.[15] Screening-level analyses require detailed modeling for further evaluation. Our HRA demonstrates that the Project's construction could pose significant health risks; thus, a full CEQA analysis should be prepared, including a comprehensive HRA.

[15] "Guidelines for Exposure Assessment." U.S. Environmental Protection Agency, 1992, *available at:* https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=15263.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

To substantially address the Project's potential health risks, the Staff Report must review all feasible mitigation measures.[16] We recommend the Staff Report consider implementing the following measures to mitigate the DPM emissions associated with Project construction (see list below).

The Southern California Association of Governments ("SCAG")'s 2020 Regional Transportation Plan/Sustainable Communities Strategy Program EIR provides the following mitigation measures:[17]

- Minimize unnecessary vehicular and machinery activities.
- Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project.
- Ensure all construction equipment is properly tuned and maintained.
- Minimizing idling time to 5 minutes or beyond regulatory requirements —saves fuel and reduces emissions.
- Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
- Develop a traffic plan to minimize community impacts because of traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites. Project sponsors should consider developing a goal for the minimization of community impacts.
- Require projects to use Tier 4 Final equipment or better for all engines above 50 horsepower (hp). If construction equipment cannot meet to Tier 4 Final engine certification, the Project representative or contractor must demonstrate through future study with written findings supported by substantial evidence that is approved by SCAG before using other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, construction equipment with Tier 4 Interim or reduction in the number and/or horsepower rating of construction equipment and/or limiting the number of construction equipment operating at the same time. All equipment must be tuned and maintained in compliance with the manufacturer's recommended maintenance schedule and specifications. All maintenance records for each equipment and their contractor(s) should make available for inspection and remain on-site for a period of at least two years from completion of construction, unless the

[16] "Mitigation Measures and Control Efficiencies.", SCAQMD, *available at*: https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.

[17] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." SCAG, May 2020, *available at:* https://scag.ca.gov/peir.

individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds. Project sponsors should also consider including ZE/ZNE technologies where appropriate and feasible.

The CalEEMod User's Guide confirms that the methods for mitigating DPM emissions include the use of "alternative fuel, electric equipment, diesel particulate filters (DPF), oxidation catalysts, newer tier engines, and dust suppression."[18]

The implementation of the mitigation measures above could reduce Project construction-related DPM emissions. These SCAG measures offer feasible methods of incorporating lower-emitting design features into the Project, corroborated by the CalEEMod User's Guide. A full CEQA analysis should be conducted that includes all feasible mitigation measures, along with the preparation of an HRA, to ensure emissions are reduced to the maximum extent feasible. The updated analysis should also demonstrate a commitment to implementing these measures before Project approval to ensure that potentially significant emissions are minimized.

Disclaimer

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

Sincerely,

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

Paul E. Rosenfeld, Ph.D.

[18] "Calculation Details for CalEEMod." CAPCOA, May 2021, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6, Appendix A, p. 60.

Attachment A: Health Risk Calculations
Attachment B: AERSCREEN Output Files
Attachment C: Matt Hagemann CV
Attachment D:: Paul Rosenfeld CV

Construction				
2024			**Total**	
Annual Emissions (tons/year)	0.35		Total DPM (lbs)	1039.068493
Daily Emissions (lbs/day)	1.917808219		Total DPM (g)	471321.4685
Construction Duration (days)	365		Emission Rate (g/s)	0.007483004
Total DPM (lbs)	700		Release Height (meters)	3
Total DPM (g)	317520		Total Acreage	5
Start Date	1/2/2024		Max Horizontal (meters)	201.17
End Date	1/1/2025		Min Horizontal (meters)	100.58
Construction Days	365		Initial Vertical Dimension (meters)	1.5
2025			Setting	Urban
Annual Emissions (tons/year)	0.17		Population	3,820,914
Daily Emissions (lbs/day)	0.931506849		Start Date	1/2/2024
Construction Duration (days)	364		End Date	12/31/2025
Total DPM (lbs)	339.0684932		Total Construction Days	729
Total DPM (g)	153801.4685		Total Years of Construction	2.00
Start Date	1/1/2025		Total Years of Operation	28.00
End Date	12/31/2025			
Construction Days	364			

The Maximally Exposed Individual at an Existing Residential Receptor During Construction				
Age Group	**Emissions Source**	**Duration** (years)	**Concentration** (ug/m3)	**Cancer Risk**
3rd Trimester	Construction	0.25	1.0990	1.49E-05
Infant (0 - 2)	Construction	1.75	1.0990	3.15E-04
Construction		**2**		**3.30E-04**

AERSCREEN 21112 / AERMOD 21112 12/10/24
14:56:01

TITLE: 18434Vanowen, Construction

********** AREA PARAMETERS **********

SOURCE EMISSION RATE:	0.748E-02	g/s	0.594E-01	lb/hr
AREA EMISSION RATE:	0.370E-06	g/(s-m2)	0.294E-05	lb/(hr-m2)
AREA HEIGHT:	3.00	meters	9.84	feet
AREA SOURCE LONG SIDE:	201.17	meters	660.01	feet
AREA SOURCE SHORT SIDE:	100.58	meters	329.99	feet
INITIAL VERTICAL DIMENSION:	1.50	meters	4.92	feet
RURAL OR URBAN:	URBAN			
POPULATION:	3820914			
INITIAL PROBE DISTANCE =	5000.	meters	16404.	feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********

25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	10.90	0	100.0	WIN

* = worst case diagonal

```
**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                   0.35
BOWEN RATIO:              1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



--------------------------------------------------------------------------------
********** AERSCREEN AUTOMATED DISTANCES **********
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------


                    MAXIMUM                             MAXIMUM
           DIST     1-HR CONC                DIST     1-HR CONC
            (m)      (ug/m3)                  (m)      (ug/m3)
         --------------------              --------------------
           1.00     8.561                 2525.00    0.1072
```

25.00	9.259	2550.00	0.1057
50.00	9.967	2575.00	0.1043
75.00	10.47	2600.00	0.1030
100.00	10.90	2625.00	0.1016
125.00	7.757	2650.00	0.1003
150.00	5.395	2675.00	0.9904E-01
175.00	4.285	2700.00	0.9778E-01
200.00	3.532	2725.00	0.9656E-01
225.00	2.982	2750.00	0.9536E-01
250.00	2.567	2775.00	0.9418E-01
275.00	2.246	2800.00	0.9303E-01
300.00	1.986	2825.00	0.9191E-01
325.00	1.777	2850.00	0.9081E-01
350.00	1.602	2875.00	0.8973E-01
375.00	1.457	2900.00	0.8867E-01
400.00	1.332	2925.00	0.8763E-01
425.00	1.224	2950.00	0.8662E-01
450.00	1.132	2975.00	0.8562E-01
475.00	1.051	3000.00	0.8465E-01
500.00	0.9793	3025.00	0.8369E-01
525.00	0.9158	3050.00	0.8276E-01
550.00	0.8588	3074.99	0.8184E-01
575.00	0.8079	3100.00	0.8093E-01
600.00	0.7621	3125.00	0.8005E-01
625.00	0.7208	3150.00	0.7918E-01
650.00	0.6831	3174.99	0.7833E-01
675.00	0.6485	3199.99	0.7749E-01
700.00	0.6169	3225.00	0.7667E-01
725.00	0.5879	3250.00	0.7586E-01
750.00	0.5612	3275.00	0.7507E-01
775.00	0.5366	3300.00	0.7430E-01
800.00	0.5138	3325.00	0.7353E-01
825.00	0.4927	3350.00	0.7278E-01
850.00	0.4730	3375.00	0.7204E-01
875.00	0.4546	3400.00	0.7132E-01
900.00	0.4374	3425.00	0.7061E-01
925.00	0.4214	3450.00	0.6991E-01
950.00	0.4063	3475.00	0.6922E-01
975.00	0.3921	3500.00	0.6855E-01
1000.00	0.3787	3525.00	0.6788E-01
1025.00	0.3661	3550.00	0.6723E-01
1050.00	0.3542	3575.00	0.6659E-01
1075.00	0.3430	3600.00	0.6595E-01
1100.00	0.3324	3625.00	0.6533E-01
1125.00	0.3223	3650.00	0.6472E-01
1150.00	0.3128	3675.00	0.6412E-01
1175.00	0.3037	3700.00	0.6353E-01
1200.00	0.2951	3724.99	0.6294E-01
1225.00	0.2869	3750.00	0.6237E-01
1250.00	0.2791	3775.00	0.6181E-01

1275.00	0.2717	3800.00	0.6125E-01
1300.00	0.2646	3825.00	0.6070E-01
1325.00	0.2578	3849.99	0.6016E-01
1350.00	0.2513	3875.00	0.5963E-01
1375.00	0.2451	3900.00	0.5911E-01
1400.00	0.2392	3925.00	0.5860E-01
1425.00	0.2335	3950.00	0.5809E-01
1450.00	0.2280	3975.00	0.5759E-01
1475.00	0.2228	4000.00	0.5710E-01
1500.00	0.2178	4025.00	0.5661E-01
1525.00	0.2129	4050.00	0.5614E-01
1550.00	0.2082	4075.00	0.5566E-01
1575.00	0.2037	4100.00	0.5520E-01
1600.00	0.1994	4125.00	0.5474E-01
1625.00	0.1952	4150.00	0.5429E-01
1650.00	0.1912	4175.00	0.5385E-01
1675.00	0.1873	4200.00	0.5341E-01
1700.00	0.1835	4225.00	0.5298E-01
1725.00	0.1799	4250.00	0.5255E-01
1750.00	0.1764	4275.00	0.5213E-01
1775.00	0.1730	4300.00	0.5172E-01
1800.00	0.1697	4325.00	0.5131E-01
1825.00	0.1665	4350.00	0.5091E-01
1850.00	0.1634	4375.00	0.5051E-01
1875.00	0.1611	4400.00	0.5012E-01
1900.00	0.1582	4425.00	0.4973E-01
1925.00	0.1554	4450.00	0.4935E-01
1950.00	0.1527	4475.00	0.4897E-01
1975.00	0.1500	4500.00	0.4860E-01
2000.00	0.1475	4525.00	0.4823E-01
2025.00	0.1450	4550.00	0.4787E-01
2050.00	0.1426	4575.00	0.4751E-01
2075.00	0.1402	4600.00	0.4716E-01
2100.00	0.1379	4625.00	0.4681E-01
2125.00	0.1357	4650.00	0.4647E-01
2150.00	0.1336	4675.00	0.4613E-01
2175.00	0.1315	4700.00	0.4579E-01
2200.00	0.1294	4725.00	0.4546E-01
2225.00	0.1274	4750.00	0.4513E-01
2250.00	0.1255	4775.00	0.4481E-01
2275.00	0.1236	4800.00	0.4449E-01
2300.00	0.1218	4825.00	0.4418E-01
2325.00	0.1200	4850.00	0.4387E-01
2350.00	0.1183	4875.00	0.4356E-01
2375.00	0.1166	4900.00	0.4325E-01
2400.00	0.1149	4924.99	0.4295E-01
2425.00	0.1133	4950.00	0.4266E-01
2450.00	0.1117	4975.00	0.4236E-01
2475.00	0.1102	5000.00	0.4208E-01
2500.00	0.1087		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	10.92	10.92	10.92	10.92	N/A
DISTANCE FROM SOURCE	101.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	8.561	8.561	8.561	8.561	N/A
DISTANCE FROM SOURCE	1.00 meters				

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009