Hello, my name is Pete Sheehan and I'm with the Golden State Environmental Justice Alliance. We submitted a comment letter regarding the Environmental Impact Report (EIR). Our letter identified several deficiencies with the EIR.

During these turbulent times, we as citizens expect and deserve our local government's elected and appointed officials to protect us from environmental and social injustice, to aid in the preservation and rehabilitation of the environment in which we all share, and to ensure accountability and responsibility regarding the environmental decisions they make.

We stand by our comment letter and believe the EIR is flawed, and a new EIR must be drafted and circulated for public review.

In closing, we call on this Commission to be a leader on these issues and be the first line of defense for our citizenry and environment. Only by working together can we continue to be excellent stewards of our environment, outstanding stewards to our citizens and each other.

Green Jobs & Clean Communities

30 April 2026

Planning Commission
City of Santa Maria
110 E. Cook Street
Santa Maria, CA 93454

Delivered via email to: cgraybehl@cityofsantamaria.org
cityclerk@cityofsantamaria.org

Re: Supplemental Comments on Stowell Road Package Delivery Warehouse Environmental Impact Report (EIR), SCH No. 2025080640

Commissioners,

Golden State Environmental Justice Alliance (GSEJA) has presented arguments regarding the aforementioned project in the form of a Comment Letter dated 23 December 2025, which objects the EIR and documents systematic California Environmental Quality Act (CEQA) violations including inadequate project description, deficient VMT (vehicle miles traveled) analysis, incomplete General Plan consistency review, insufficient alternatives analysis, and failure to address impacts on disadvantaged communities.

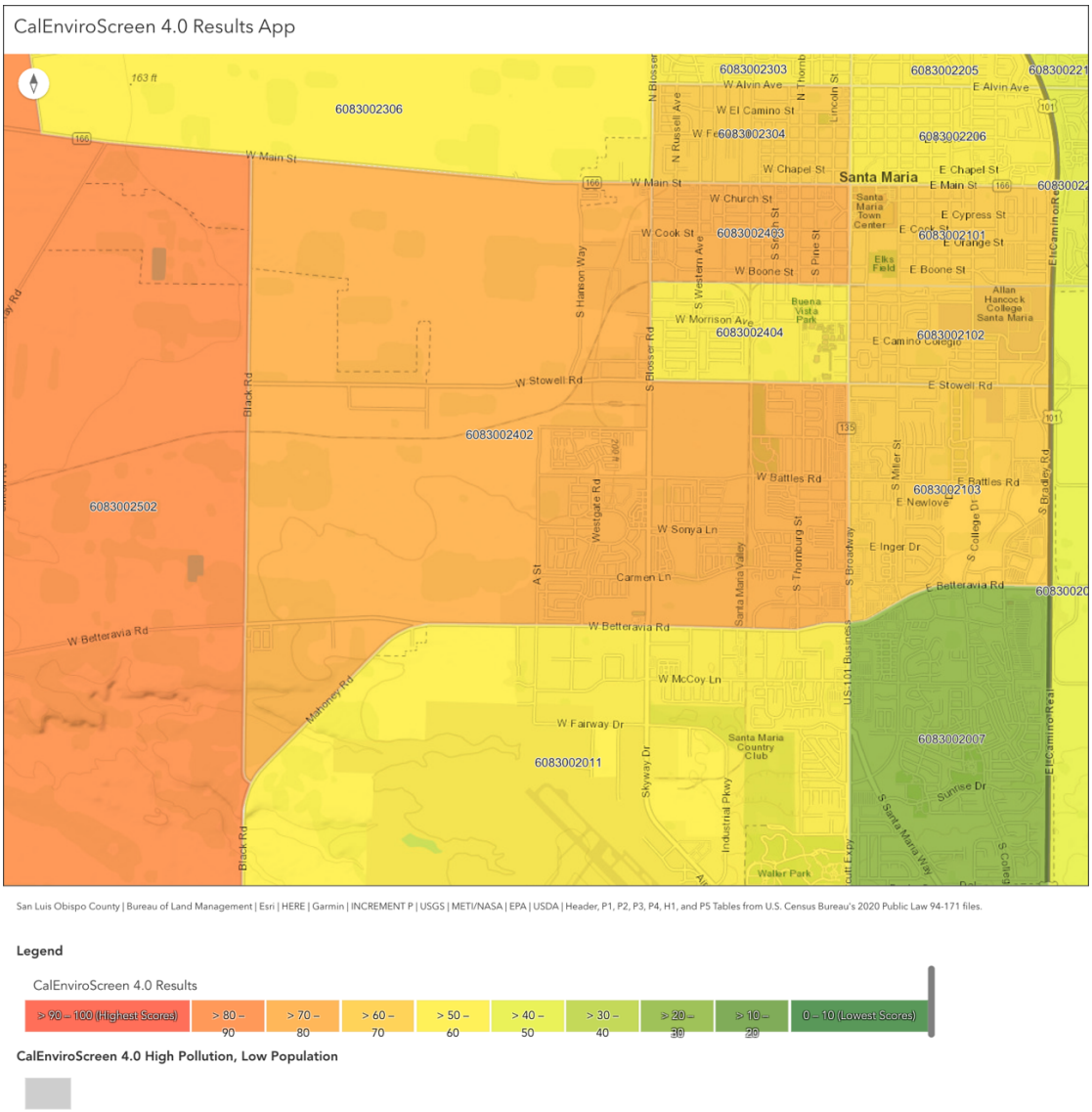
GSEJA also provided technical review comments dated 19 December 2025 prepared by Soil Water Air Protection Enterprise (SWAPE), concluding the project's air quality, greenhouse gas, and health risk impacts may be underestimated due to incomplete project descriptions, unjustified exclusions from analysis, and inadequate mitigation measures.

GSEJA's comprehensive technical review reveals critical deficiencies that warrant the Planning Commission's rejection of this proposed 244,418 ft^2 package delivery hub at 1680 West Stowell Road. The project site affects Census Tract 6083002402, which already ranks at the 80th percentile for overall pollution burden—among the most severely impacted communities in California—with groundwater threats at the 100th percentile, solid waste facility impacts at the 98th percentile, and hazardous waste facility impacts at the 96th percentile. Rather than avoiding harm to this already-burdened community, the project will dramatically worsen these conditions through continuous diesel particulate matter emissions from up to 345 daily delivery vans and 34 daily line-haul semi-trucks, compounding existing health burdens on a community that is 78% Hispanic, 83% below the poverty line, and experiencing a 55th percentile asthma incidence rate.

The project also employs manipulated VMT analysis that understates true transportation impacts by excluding realistic commute distances, generates 558 jobs with zero housing in a community where affordability is already in crisis, and fails entirely to conduct the quantified health risk assessment that California law and best practices require for warehouse projects of this scale.

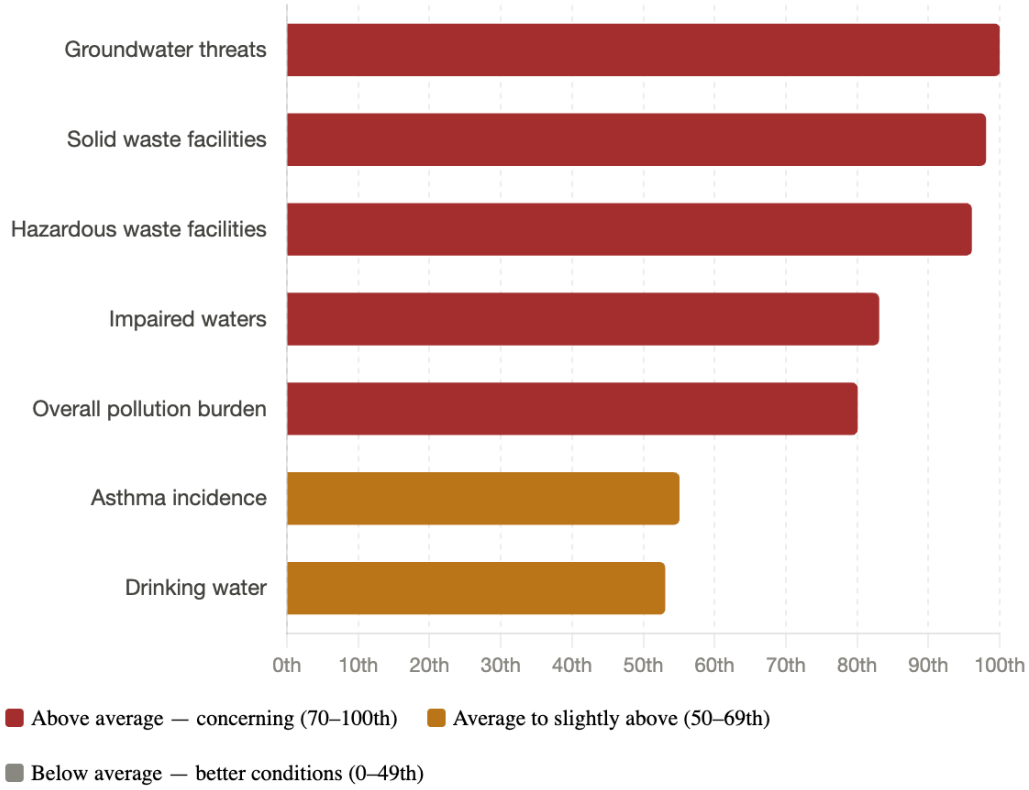
I. Impacts to an Already-Overburdened Environmental Justice Community

The Project's census tract (6083002402) is not a healthy community being asked to absorb modest incremental impacts — it is among the most severely pollution-burdened communities in California. According to CalEnviroScreen 4.0, the census tract ranks at the 80th percentile for overall pollution burden, placing it firmly among the communities the California Environmental Protection Agency identifies as most vulnerable to additional pollution loading. Several individual pollution indicators place this community in extreme jeopardy:



- Groundwater Threats: 100th percentile—maximum possible exposure category; people near contaminated groundwater may be exposed to chemicals moving from soil into the air inside their homes
- Solid Waste Facility Impacts: 98th percentile—hazardous chemical and toxic gas exposure, including from closed facilities
- Hazardous Waste Facility Impacts: 96th percentile—severe contamination burden from waste generators and facilities
- Impaired Waters: 83rd percentile—habitat destruction, toxin bioaccumulation, and risk to those who consume local fish and shellfish
- Drinking Water Contaminants: 53rd percentile—above-average water quality impairment disproportionately affecting rural and low-income residents
- Asthma Incidence: 55th percentile—elevated baseline respiratory vulnerability in the surrounding population

Source: CalEnviroScreen 4.0, California Environmental Protection Agency
Higher percentiles indicate worse conditions relative to other California communities



Critical finding

This community already ranks at the 80th percentile for overall pollution burden. The Project will add continuous diesel particulate matter and ozone precursor emissions on top of groundwater threats (100th percentile), solid waste impacts (98th percentile), and hazardous waste burdens (96th percentile).

These pollution burdens fall disproportionately on a community that is 78% Hispanic, 2.5% African-American, and 4% Asian-American, with 83% of households below the poverty level, 93% of adults over 25 lacking a high school diploma, and 84% facing linguistic isolation. Poverty compounds pollution exposure: residents cannot afford the healthcare, nutritious food, and healthy living conditions needed to withstand additional environmental stress, and linguistic isolation further limits their ability to participate in the public processes meant to protect them. This is precisely the demographic profile that California's environmental justice framework—including SB 1000 (Government Code Section 65302(h))—was designed to protect.

The Project proposes to add up to 345 delivery vans departing daily, 34 line-haul semi-trucks delivering packages each day, and 990 on-site parking spaces generating continuous vehicle trips—all producing diesel particulate matter (DPM) and ozone precursors in a community with elevated asthma rates already surrounded by contaminated groundwater, solid waste facilities, and hazardous waste generators. The cumulative health consequences are not speculative — they are predictable and serious.

Source: CalEnviroScreen 4.0 (current conditions); projected conditions based on SWAPE technical analysis

BEFORE PROJECT — CURRENT CONDITIONS	AFTER PROJECT — PROJECTED CONDITIONS
Overall pollution burden 80th percentile Above California average	Overall pollution burden 90th+ percentile Severely above California average
Diesel PM Baseline No project contribution	Diesel PM Major increase 345 daily vans + 34 semi-trucks
Traffic burden Baseline No project contribution	Traffic burden Severe worsening 237% above VMT threshold
Groundwater threats 100th percentile Maximum exposure — unchanged	Groundwater threats 100th percentile Unchanged but compounded by diesel

This project does not introduce pollution to a clean community — it compounds an already critical burden.

The Initial Study (IS) and EIR contains no environmental justice analysis, in direct conflict with CEQA Guidelines Section 15131(c), which requires that economic, social, and housing factors be considered together with technological and environmental factors in deciding whether project changes are feasible to reduce or avoid significant environmental effects. Government Code Section 65302(h), enacted through SB 1000, requires environmental justice analysis to identify objectives and policies to reduce unique or compounded health risks in disadvantaged communities. The California Environmental Protection Agency's framework recognizes that environmental justice requires preventing the compounding of sacrifice zones, not merely avoiding worsening existing ones. This project fails that fundamental test.

II. Critical EIR Deficiencies Requiring Revision and Recirculation

The City's EIR fails to satisfy CEQA's informational mandate across multiple impact categories. The deficiencies identified below are not minor procedural gaps — they are substantive failures that prevent meaningful public participation and informed decision-making.

Inadequate Project Description

The IS/EIR does not provide a complete project description adequate for meaningful environmental review. Critical planning and design components are either absent from the public record or deferred to post-approval action, in violation of CEQA Guidelines Section 15161's requirement for project-specific analysis. Specifically:

- No detailed site plan showing truck loading dock locations, delivery van staging areas, or on-site circulation patterns for up to 345 simultaneously operating vans
- No floor plans for the 169,104 ft^2 main facility or any of the accessory structures totaling an additional 75,314 ft^2
- No grading plan to verify the claimed soil import quantities or assess earthwork impacts
- No building elevations disclosing the proposed 45-foot building height — a height requiring a modification to exceed the 35-foot limit — and its visual impacts on surrounding agricultural and residential uses
- The City Public Works Department's review of truck maneuvering and hazardous design features is excluded from public review
- The Santa Maria Fire Department's emergency access review is excluded from public review

Without these components, accurate quantification of air quality impacts, VMT, and health risks is impossible. The City cannot defer critical project details to post-approval while claiming to

have conducted adequate environmental review. This is not a minor procedural defect—it is a fundamental violation of CEQA's informational mandate.

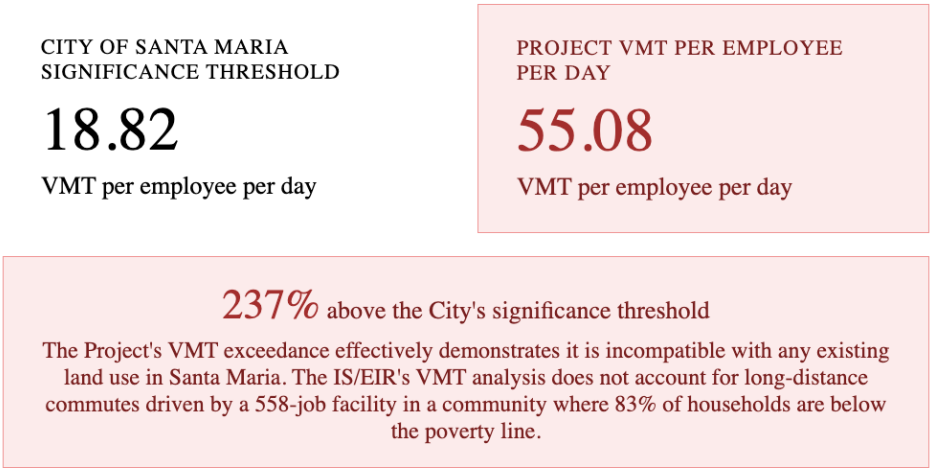
The Project Is Not a Permitted Use — and the EIR Fails to Treat It As Such

The IS/EIR itself acknowledges that "the Project is not a use permitted by right in the Commercial/Manufacturing/Agricultural Overlay Zoning District (PD/CM-AG) of the West Stowell Specific Plan." This foundational fact invalidates the EIR's analysis of air quality, energy, greenhouse gas emissions, and land use consistency. Because the Project is not a permitted use, it is not accounted for in the Air Quality Management Plan (AQMP), the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), or the City's General Plan. The West Stowell Specific Plan's PD/CM-AG designation was designed to preserve agricultural-industrial activity—not to accommodate a 24/7 package delivery hub with no agricultural nexus whatsoever.

The EIR must be revised to include findings of significance for air quality, GHG, and energy impacts given the Project's exclusion from all applicable planning documents. The EIR must also acknowledge that the Planning Commission cannot make the required findings under the West Stowell Specific Plan—that the Project falls within the intent and purpose of the PD/CM-AG district, will not be detrimental to public welfare, and is compatible with adjoining land uses—because none of those findings are supportable.

Systematically Deficient VMT Analysis

The EIR concludes that the Project generates approximately 55.08 VMT per employee per day. The City of Santa Maria's adopted significance threshold is 18.82 VMT per employee. The Project therefore exceeds the City's own threshold by approximately 237%, far more than local standards that it effectively demonstrates the Project is incompatible with any existing land use in the City.



Source: IS/EIR VMT analysis; City of Santa Maria adopted VMT significance threshold.

This exceedance is compounded by the EIR's failure to honestly account for the jobs-housing imbalance the Project creates. The IS/EIR claims 558 new operational jobs will be filled by local workers, but provides no methodology for this conclusion, identifies no available undeployed workers qualified for industrial roles, and does not acknowledge that the facility's location in a community where 83% of households live below the poverty line will likely require workers to commute from distant, more affordable areas. Workers unable to afford housing near the site will generate substantial additional VMT from surrounding regions—VMT the EIR does not account for. The EIR's VMT analysis is not a good-faith calculation; it is a manipulation designed to obscure the Project's true transportation impacts. Under CEQA Guidelines Section 15088, unrefuted technical evidence of this manipulation stands as fact.

Greenhouse Gas Analysis Is Fundamentally Flawed

SWAPE's technical review concludes that the IS/EIR fails to adequately evaluate the Project's greenhouse gas impacts. The IS's own modeling estimates net annual GHG emissions of 10,028 MT CO_2e/yr.

GHG emissions measure	MT CO_2e/yr	Exceeds threshold?
Project total net annual GHG emissions	10,028	YES
SCAQMD industrial threshold (applied as best-practices benchmark)	10,000	—

Note: SBCAPCD has not adopted a numeric GHG threshold. SCAQMD's 10,000 MT CO_2e/yr industrial threshold is applied here as a reasonable, evidence-based benchmark consistent with CEQA practice. Source: SWAPE Technical Analysis; IS/EIR Table 13.

The Santa Barbara County Air Pollution Control District (SBCAPCD), the applicable air district for this Project, has not adopted a numeric GHG significance threshold. In the absence of a locally adopted quantitative threshold, SWAPE's analysis applies the South Coast Air Quality Management District (SCAQMD) industrial threshold of 10,000 MT CO_2e/yr as a reasonable, evidence-based benchmark—a threshold widely used in CEQA practice for evaluating GHG emissions from large-scale industrial development precisely in situations where the local air district has not established its own. Under this benchmark, the Project's estimated emissions of 10,028 MT CO_2e/yr indicate a potentially significant GHG impact.

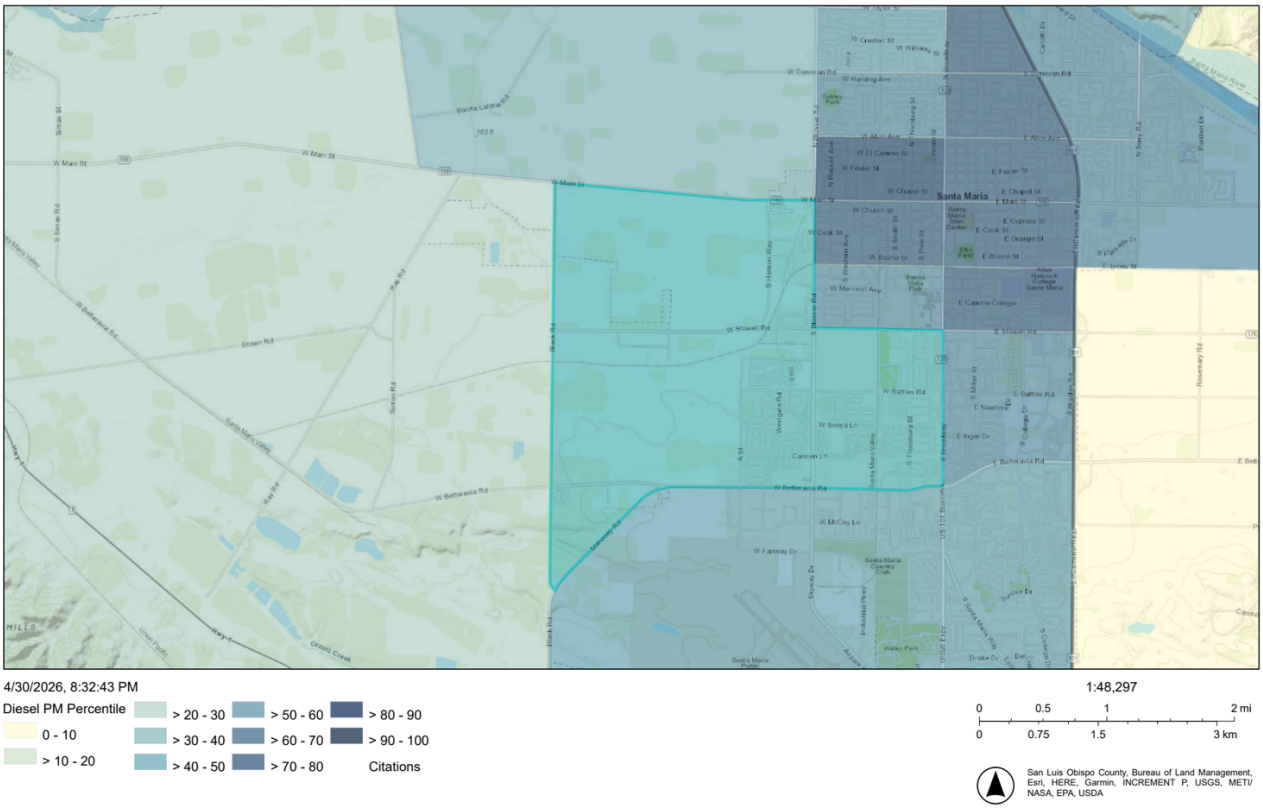
Rather than apply any numeric threshold, the IS claims a less-than-significant finding by citing regulatory compliance with CARB programs. Because the Project is not a permitted use and is not accounted for in the AQMP or any applicable planning document, it cannot rely on the Business as Usual (BAU) methodology or programmatic compliance pathways. The only defensible approach in the absence of a local threshold is the SCAQMD screening level — and the Project exceeds it. A finding of significance is required, and a revised EIR must analyze all feasible mitigation to reduce GHG emissions to the maximum extent practicable.

Additionally, the IS/EIR uses CalEEMod for energy compliance modeling—software not listed as approved for compliance with California's Title 24 Building Energy Efficiency Standards. The three state-approved tools are CBECC-Com, EnergyPro, and IES VE. If the Project applies for a building permit on or after 1 January 2026, it must comply with the 2025 standards, for which only CBECC is currently approved. The current modeling underreports energy impacts and cannot support a less-than-significant finding.

Diesel Particulate Matter Health Risk Is Unquantified

SWAPE's review finds that the IS claims a less-than-significant health risk impact without conducting a quantified health risk assessment (HRA) for either construction or operations. This is inconsistent with CEQA, which requires agencies to make a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences" (*Sierra Club v. County of Fresno*). The California Department of Justice's warehouse best practices guidelines explicitly recommend that all warehouse projects prepare a quantitative HRA per OEHHA standards, assessing cancer and non-cancer risk from DPM at nearby sensitive receptors.

No such analysis was prepared. This omission is especially egregious given that the census tract has a 55th percentile asthma incidence rate and is surrounded by a community bearing multiple overlapping pollution burdens. The combined construction and operational cancer risk from DPM must be calculated and compared to the SBCAPCD threshold of 10 in one million. The City's response does not provide a technical rebuttal to SWAPE's findings on this point. Without this analysis, the IS's health risk conclusion is unsupported by substantial evidence and violates CEQA Guidelines Section 15088.



Construction Emissions Modeling Uses Unjustified Parameters

SWAPE's review of the CalEEMod output files identifies that the Project's model modifies default individual construction phase lengths without adequate justification, as required by the CalEEMod User's Guide. The DEIR justifies only the total 16-month construction duration which does not explain the lengths assigned to individual phases such as grading, building construction, paving, and architectural coating. Each phase generates distinct emissions activities; by assigning more days to certain phases, the model assumes fewer activities per day and consequently calculates lower peak daily emissions. The net effect is systematic underestimation of construction-phase air quality impacts. The model should instead have proportionately scaled all phase lengths to match the total 16-month duration. Until the construction phase lengths are supported by substantial evidence, the emissions modeling cannot be relied upon, and a revised EIR must be prepared.

III. General Plan Inconsistencies

The Project conflicts with multiple City of Santa Maria General Plan goals and policies adopted specifically to avoid or mitigate environmental effects. The IS/EIR does not provide a complete consistency analysis, and a revised EIR must do so. Key conflicts include:

- Goal L.U.5 (Development Continuity): Discourages sprawl and leap-frog development—the Project extends intensive industrial use into an agricultural overlay zone with no surrounding urban service context.

- Goals L.U.6a/b/c (Balance Growth / Preserve Agricultural Resources): Requires balancing social, environmental, and economic considerations and making every effort to preserve agricultural resources—the Project displaces the agricultural-industrial zoning intent entirely and converts agricultural land to a use with no agricultural nexus.

- Goal L.U.6 Implementation Program 6: New urban land uses should not be permitted on prime agricultural land except where infilling between existing development nodes — this site does not meet that exception.

- Goal L.U.11 / Policy L.U.11 (Jobs-Housing Balance): Requires balance between employment-generating uses and residential development—the Project creates 558 jobs with zero housing, directly contradicting this policy.

- Climate Action Plan: Requires VMT reduction through compact, mixed-use development—the Project generates VMT 237% above the City's own significance threshold and is the antithesis of compact mixed-use development.

When projects conflict with General Plan policies adopted to avoid environmental impacts, CEQA requires findings of significance. The IS/EIR's consistency analysis employs superficial reasoning that ignores these fundamental conflicts.

Real-world consequences

558 workers must commute from elsewhere, adding thousands of daily vehicle miles to regional roads

Workers compete for housing in a community where 83% of households already live below the poverty line

Long-distance commutes from affordable housing areas increase GHG emissions and undermine regional climate goals

Low-wage warehouse workers are forced to live far from jobs due to local housing costs

Source: IS/EIR operational employment estimates; City of Santa Maria VMT significance threshold. Job estimates based on project description.

IV. Deficient Alternatives Analysis

CEQA Guidelines Section 15126.6(a) requires an EIR to describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects. The EIR analyzes only two alternatives: the required No Project/No Development alternative and a single Reduced Size Alternative. This is not a reasonable range. Critically missing alternatives include:

- A mixed-use alternative incorporating affordable housing to address the severe jobs-housing imbalance and reduce VMT—the Project's most significant and unavoidable impact

- An alternative sited within areas already designated for industrial use, avoiding the agricultural overlay zone and prime agricultural land

- A project alternative that reduces all significant and unavoidable impacts to less-than-significant levels, as required by CEQA § 15126.6

- A reduced-intensity alternative emphasizing higher-wage employment, lower truck traffic, and reduced GHG emissions

Neither of the analyzed alternatives substantially lessens the Project's significant impacts to air quality, greenhouse gas emissions, transportation, or environmental justice. This violates CEQA Guidelines Section 15126.6(f), which requires analyzing alternatives that substantially reduce impacts.

V. Recommendation

The Planning Commission must reject the inadequate EIR and require preparation of a revised EIR that includes:

- Complete Project Description: Detailed site plans showing all loading docks, delivery van staging areas, and circulation patterns. Floor plans for all structures. Grading plans with earthwork calculations. Building elevations disclosing the proposed 45-foot height and its visual impacts. Full inclusion of the Public Works and Fire Department review documents for public review rather than deferral to post-approval.

- Honest VMT Analysis: All trip categories must be included with full methodology. The analysis must evaluate VMT impacts from 558 employees commuting from residential areas given the project's jobs-housing imbalance. The City must address SWAPE's technical evidence with substantive rebuttal or corrected calculations.

- Enforceable GHG Mitigation: A revised EIR must apply the 10,000 MT CO_2e/yr screening threshold and include a finding of significance. All feasible mitigation must be analyzed, including solar PV systems, zero-emission truck infrastructure, EV charging

stations sized proportionally to dock doors and employee parking, CalGreen Tier 2 compliance, and SmartWay carrier requirements. Use of state-approved energy compliance software is required.

- Quantified Health Risk Assessment: A full HRA per OEHHA standards must assess cancer and non-cancer risk from DPM during construction and operations for all nearby sensitive receptors, with combined risk compared to the SBCAPCD threshold of 10 in one million.

- Environmental Justice Analysis: A comprehensive analysis consistent with CEQA Guidelines Section 15131(c) and SB 1000 must document cumulative health burden on census tract 6083002402, analyze DPM impacts compounding existing groundwater, solid waste, and hazardous waste burdens, and identify enhanced mitigation commensurate with the community's vulnerability. Community engagement must include Spanish-language translation of all environmental documents and bilingual public workshops.

- Meaningful General Plan Consistency Analysis: The revised EIR must address all conflicts identified above and include findings of significance where the Project conflicts with policies adopted to avoid environmental effects.

- Comprehensive Alternatives Analysis: A full range of alternatives must be analyzed, including a mixed-use alternative with an affordable housing component, alternatives sited within existing industrial zones, and alternatives that reduce all significant impacts to less-than-significant levels.

VI. Conclusion

Due to the above-mentioned reasons as well as the reasons listed in our December 2025 comment letter, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and circulated for public review.

If this project proceeds, it will add continuous diesel particulate matter and ozone precursor emissions to a community already at the 80th percentile for overall pollution burden, with groundwater threats at the 100th percentile and hazardous waste impacts at the 96th percentile; exceed the City's own VMT significance threshold by 237% through a manipulated analysis that excludes realistic commute distances; surpass applicable GHG thresholds based on the Project's own modeling without a finding of significance or adequate mitigation; and proceed entirely without the health risk assessment California law requires for warehouse projects of this scale and proximity to sensitive receptors.

The City's responses to our detailed technical comments fail CEQA Guidelines Section 15088's requirements for good faith, reasoned analysis. Unrefuted technical evidence from SWAPE stands as fact, demonstrating the EIR systematically underestimates environmental impacts.

Environmental justice demands more than avoiding further harm to already-burdened communities—it requires preventing the compounding of sacrifice zones. This project fails that fundamental test.

The Planning Commission should reject this inadequate EIR and require preparation of a legally adequate revised EIR that honestly analyzes environmental impacts, provides enforceable mitigation, and considers alternatives that avoid further compounding the environmental injustice already experienced by this community.

The health of our children and the future of our community are in your hands.

Onwards.

Pete Sheehan
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+1 559 313 5065

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December 23, 2025

Cody Graybehl
Senior Planner
City of Santa Maria
Planning Division, Community Development Department
110 South Pine Street, Suite 101
Santa Maria, CA 93454

Via Email to:
cgraybehl@cityofsantamaria.org

Subject: Comments on Package Delivery Warehouse Planned Development Permit EIR (SCH NO. 2025080640)

Dear Mr. Graybehl,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed Package Delivery Warehouse Planned Development Permit Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance, P.O. Box 79222, Corona, CA 92877.

1.0 Summary

The Project proposes the construction and operation of a 244,418 square-foot (sf) package delivery hub, including one (1) 169,104 square-foot (sf) distribution facility featuring a main warehouse, training room, break room, office space, fleet service center, and various support structures on an approximately 32-acre site at 1680 West Stowell Road. The other accessory structures include a Loading Awning - East (33,545 sf), Loading Awning - West (34,325 sf), Remote Restrooms (906 sf), Automated Vehicle Inspection Structures (1,545 sf), and the Fleet Service Center (4,993 sf). The Project requires a Planned Development Permit, including a modification to exceed the 35-foot building height limit to 45 feet.

2.0 Project Description

The IS/EIR describes the Project operations as follows:

"Delivery warehouses operate 24/7 to support the delivery of packages to customer locations between 10:00 a.m. and 9:00 p.m. The main on-site facility would include delivery and distribution, office and processing uses, including shipping and receiving of packages. Approximately 34 line-haul trucks (semi-trailer trucks) would be expected to deliver packages to the warehouse each day.

The customer packages would be sorted by address groupings, assigned to the delivery routes, placed onto movable racks, and staged for dispatch. Delivery drivers would arrive at the delivery warehouse around 9:20 a.m. and begin queuing for loading. Up to 345 delivery vans would depart from the delivery warehouse at a rate of up to 72 vans per 20 minutes to facilitate a regulated traffic flow into the surrounding area. Approximately 8–10 hours after dispatch, delivery routes would be completed, and the vans would return to the station intermittently between 8:10 p.m. and 9:50 p.m. with all delivery vans staying onsite.

Parking for up to 990 passenger cars and vans would be available on-site. There would be 12 stalls at the loading dock to accommodate semi-trucks on the south side of the main facility. Parking for overnight fleet vehicles and drivers' personal vehicles totaling 272 spaces would be available north of the building."

1.4 Issues Not Studied in Detail in the EIR

1.4.3: Air Quality, 1.4.6: Energy, and 1.4.8: Greenhouse Gas Emissions

The Initial Study states that, "The Project is not a use permitted by right in the Commercial/Manufacturing/Agricultural Overlay Zoning District (PD/CM-AG) of the West Stowell Specific Plan." Therefore, it is not accounted for in the AQMP, RTP/SCS, or the City's General Plan. The EIR must be revised to state this information and include a finding of significance; it must also be recirculated for public review and comment. See also the attached air quality comments and analysis from SWAPE.

The IS/EIR does not include relevant environmental justice issues for analysis in reviewing potential impacts, including cumulative impacts from the proposed Project. This conflicts with CEQA Guidelines Section 15131 (c), which requires that "Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a Project are feasible to reduce or avoid

the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the Project." According to CalEnviroScreen 4.0[1], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed Project's census tract (6083002402) ranks in the 80th percentile for overall pollution burden, meaning it is among the areas of the state most highly burdened by pollution.

The surrounding community bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. The census tract ranks among the most severely impacted in several areas that impact water quality. The census tract ranks in the 100th percentile for groundwater threats. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes[2]. Accordingly, the census tract ranks in the 53rd percentile for drinking water impacts, which indicates that it ranks with the worst quality drinking water in the state. Poor communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state[3]. The census tract also ranks in the 83rd percentile for impaired waters. Water pollution can harm wildlife habitats and change the number and types of plants and animals in the environment[4]. When fish and shellfish are contaminated, people who eat them can be exposed to toxic substances[5].

The census tract also ranks in the 98th percentile for solid waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilities are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations[6]. The census tract also ranks in the 96th percentile for hazardous waste facility impacts. Hazardous waste generators and facilities contribute to the contamination of air, water, and soil near waste generators and facilities can harm the environment as well as people[7].

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[1] https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/
[2] OEHHA Groundwater Threats https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats
[3] OEHHA Drinking Water https://oehha.ca.gov/calenviroscreen/drinking-water
[4] OEHHA Impaired Waters https://oehha.ca.gov/calenviroscreen/indicator/impaired-water-bodies
[5] Ibid.
[6] OEHHA Solid Waste Facilities https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities
[7] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities

Further, the Project's census tract is a diverse community including 78% Hispanic, 2.5% African-American, and 4% Asian-American residents, who are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 93% of the census tract over age 25 has not attained a high school diploma. The community also has a high rate of poverty, meaning 83% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[8]. Poor communities are often located in areas with high levels of pollution[9]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[10]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 55th percentile for incidence of asthma. The community also has a high rate of linguistic isolation, meaning 84% of the census tract speaks little to no English and faces further inequities as a result.

Santa Barbara County APCD's threshold of significance[11] is that a Project will not have a significant GHG impact if the operation of the project will:

- emit less than the screening significance level of 10,000 metric tons per year (MT/yr) CO2e; or
- show compliance with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions (sources subject to the AB 32 Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms) would meet the criteria); or
- show consistency with the AB 32 Scoping Plan GHG emission reduction goals by reducing Project emissions 15.3 percent below Business As Usual (BAU).

In September 2016, SBC APCD issued updated guidance[12] stating that, "On November 30, 2015, the California Supreme Court issued its opinion in Center for Biological Diversity v. California Department of Fish and Wildlife, Real Party In Interest Newhall Land and Farming. While the Supreme Court upheld the BAU approach as a valid CEQA threshold, the Court found that the

[8] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[9] Ibid.
[10] Ibid.
[11] https://www.ourair.org/wp-content/uploads/APCDCEQAGuidelinesApr2015.pdf
[12] https://www.ourair.org/wp-content/uploads/090616-GHG-memo.pdf

application of this threshold in that case was not adequately supported by substantial evidence in the record." For the proposed Project, the same standard applies. The proposed Project is not a use permitted by right in the PD/CM-AG district, and therefore, it is not accounted for in the "Business As Usual" approach; it is not accounted for in the AQMP, 2022 Scoping Plan, RTP/SCS, the City's General Plan, or any other applicable planning document. The only allowable threshold of significance is the screening level of 10,000 MT/yr of CO2e, and the proposed Project exceeds this threshold. The EIR must be revised and recirculated to include this information for analysis and include a finding of significance due to this significant and unavoidable cumulative considerable impact.

The IS/EIR acknowledges that the California Energy Code (Title 24, Part 6, of the California Code of Regulations and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations) are applicable plans for renewable energy or energy efficiency. The State of California lists three approved compliance modeling software[13] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod is not listed as an approved software. The CalEEMod and spreadsheet-based modeling in Appendix F do not comply with the 2022 Building Energy Efficiency Standards and under-reports the Project's significant Energy impacts and fuel consumption to the public and decision makers. If the Project applies for a building permit on or after January 1, 2026, it must comply with the 2025 Building Energy Efficiency Standards, and only CBECC is currently listed as an approved software for the updated standards[14]. Since the IS/EIR did not accurately or adequately model the energy impacts in compliance with Title 24, it cannot conclude the Project will generate less than significant impacts, and a finding of significance must be made in a revised EIR.

1.4.11: Land Use and Planning

The IS/EIR does not provide a consistency analysis with all land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The Project has significant potential to conflict with many of these items, including but not limited to the following from the General Plan, and a revised EIR must be prepared with a complete consistency analysis in order to provide an adequate and accurate environmental document:

[13] California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

[14] California Energy Commission 2025 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2025-energy-code-compliance-software

1. Goal L.U.5 Development Continuity. Discourage sprawl and "leap-frog" development.
2. Goal L.U.5 Implementation Program 1. Encourage industrial development in areas with appropriate urban services and characteristics; such services and characteristics are truck route access, railroad facilities access, relatively level terrain, available utilities, and adjacent high-intensity commercial area. Plan for residential land uses, which do not encroach on industrial districts.
3. Goal L.U.6a Balance Growth. Accommodate new development, balancing social, environmental, and economic considerations.
4. Goal L.U.6b Preserve Agricultural Resources. Accommodate growth while making every effort to preserve agricultural resources in the surrounding region.
5. Goal L.U.6c Urban/Agriculture Equilibrium. Achieve a balance between increased development and the maintenance, management, and/or preservation of local resources.
6. Objective L.U.6d. Encourage agricultural activities within the planning area to remain in operation by discouraging land uses that conflict with adjacent farming activities.
7. Goal L.U.6 Implementation Program 6. Wherever possible, new urban land uses should not be permitted on prime agricultural land. The exception to this policy would be in cases where the new development constitutes infilling between existing development nodes where agricultural activity is no longer desirable because of the surrounding of urban uses.
8. Goal L.U.11 Balance Land Use Supplies. The City will address the present imbalance between the land area designated for residential development and for those areas designated for industrial and commercial development.
9. Policy L.U.11 Jobs and Housing. Assure that a balance of land use between the employment-generating commercial and industrial uses, and residential development is achieved.
10. Objective L.U.11a. Maintain the current program of using existing land use and zoning maps to determine whether residential development is appropriate for those areas designated as industrial.
11. Objective L.U.11b. On an ongoing basis, determine if the redesignation of some industrial areas to nonindustrial uses is necessary, consistent with goals and policies of L.U.7 and good planning practice.

This is especially notable as the Initial Study states that, "The Project is not a use permitted by right in the Commercial/Manufacturing/Agricultural Overlay Zoning District (PD/CM-AG) of the West Stowell Specific Plan." Therefore, it is not accounted for in the AQMP, RTP/SCS, or the City's General Plan. The EIR must be revised to state this information and include a finding of significance; it must also be recirculated for public review and comment.

The EIR states that, "It is the intent of the West Stowell Specific Plan to use this designation along with an agricultural overlay as a means of safeguarding and encouraging agriculturally-related industrial activity adjacent to existing agricultural uses," and that, "…under the West Stowell Specific Plan similar uses are permitted subject to obtaining a conditional use permit according to the procedures set forth in Chapter 35 of the Santa Maria Zoning Ordinance. A use may be found to be similar if the Planning Commission finds that the project: (i) falls within the intent and purpose of the Commercial/Manufacturing/Agricultural Overlay Zoning District (PD/CM-AG); (ii) will not be obnoxious or detrimental to the public welfare; and (iii) is compatible with adjoining land uses." It is clear that the Planning Commission will not be able to meet the required findings since the Project is not within the intent and purpose of the PD/CM-AG district. The West Stowell Specific Plan states that the designation "…permits activities which manufacture and retail on the same site, as well as other heavy commercial uses which may be land extensive or require transport of materials by heavy truck." The Project does not propose to manufacture and retail products on the site. The Project is an industrial warehouse, not a commercial use. Further, Goal 2 of the West Stowell Specific Plan states that, "It shall be the goal of the West Stowell Specific Plan to preserve as much agricultural acreage as possible through the implementation of an Agricultural-Industrial Overlay Zone." The Project is not related to agriculture in any way, and therefore is not within the intent and purpose of the PD/CM-AG or the West Stowell Specific Plan.

Additionally, the Project will be obnoxious or detrimental to the public welfare and is not compatible with adjoining land uses. The EIR concludes that the project would generate approximately 55.08 VMT per employee per day, which exceeds the City of Santa Maria's adopted threshold of 18.82 VMT per employee (two-way trip) by approximately 237 percent. This indicates that the Project operations are not compatible with any form of existing development in the City. The Project will also exceed the SBC APCD threshold for GHG emissions and contribute to climate change. The Project will be detrimental and contribute to increased VMT and GHG emissions in the City. The EIR must be revised to include a finding of significance as there is no substantial evidence to support that the Planning Commission will

approve the request, and there is no substantial evidence that the project meets the required findings for approval.

Further, it must be noted that the horizon year of the City's General Plan is 2030. The Project is proposed within five years of the horizon year, and the IS/EIR has not included any analysis of the City's progress toward the General Plan buildout scenario. Given the EIR's statement that the proposed Project is not a permitted use in the West Stowell Specific Plan, the Project is not accounted for or analyzed by the City's current General Plan and its EIR. The Project is not within its growth projections or environmental analysis. The IS/EIR is inadequate as an informational document since it has not provided a cumulative analysis of all industrial projects approved since General Plan adoption. A revised EIR must be prepared to include this information for analysis to adequately and accurately analyze all potentially significant environmental impacts. A finding of significance must be included because the Project is not a permitted use and therefore is not accounted for in the General Plan growth projections and the General Plan EIR.

1.4.13: Population and Housing

The IS/EIR utilizes uncertain language and does not provide any meaningful analysis or supporting evidence to substantiate the conclusion that there will be no significant impacts on population and housing. For example, the IS/EIR states that, " While the construction phase would generate temporary employment opportunities, these jobs would *likely*be filled by the existing *regional* workforce and would not require an influx of new residents." Stating that these workers would already reside in the "region" is misleading to the public and decision makers. The EIR concludes regarding operational employment that, "…given the Project's location within an urbanized portion of the city with an existing employment base, these jobs are *expected* to be filled by local workers." Relying on the entire labor force within an undefined distance, potentially the greater Central California region, to fill the Project's construction and operational jobs will increase VMT and emissions during all phases of construction and operations and an EIR must be prepared to account for longer worker trip distances. The IS/EIR relies upon the total 41,620 people in the workforce in the City, but does not provide any information regarding the City's available undeployed workforce, such as evidence that this specific workforce is qualified for or interested in industrial work to substantiate this claim.

Additionally, regarding operational employees, the IS/EIR states the project will generate 558 new jobs without providing the methodology that resulted in this calculation. The EIR must be revised to include this information to provide an adequate and accurate environmental analysis.

The IS/EIR does not provide any substantial evidence to support the claim that the Project is within the City's growth projections or those of the RTP/SCS. Given that the proposed Project is not a permitted use in its land use designation, it was not accounted for in the growth projections of the General Plan nor the RTP/SCS, and a finding of significance must be included in a revised EIR.

4.1 Transportation

The IS/EIR has not adequately analyzed the Project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, or the Project's potential to result in inadequate emergency access. There are no exhibits adequately depicting the available maneuvering and queueing space for trucks/trailers at the intersection of the Project driveways and the adjacent streets. There are also no exhibits adequately depicting the on-site turning radius available for trucks maneuvering throughout the site. The EIR states that, "The Santa Maria Public Works Department has reviewed the proposed Project and confirmed that it would not create hazardous roadway conditions. Therefore, the Project would result in less than significant impacts related to hazardous design features."

However, the City Public Works Department review and findings of the proposed Project are excluded from public review, which does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and PRC 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate, as this contributes directly to the analysis of the problem at hand. A revised EIR must be prepared and recirculated to include the City Public Works Department review and findings of the proposed Project for review, analysis, and comment by the public and decision makers in order to comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and PRC 21003(b)). The IS/EIR has not provided any details regarding the requirements for SMMC Section 12-33 or meaningful analysis of the Project's compliance or noncompliance with these requirements. The IS/EIR has not included any substantial evidence to support a less-than-significant finding. A revised EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts and recirculated.

The IS/EIR states regarding emergency access that, "The proposed project has been reviewed by the Santa Maria Fire Department (SMFD) and would follow the Santa Maria Fire Department's requirements to make all three access roads a minimum width to allow fire apparatus access to the proposed facility. Access and circulation would be designed to comply with all safety and street improvement standards per the SMFD and the City's Municipal Code Title 7 Traffic

Regulations." However, the City Fire Department review and findings of the proposed project are excluded from public review, which does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and PRC 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate, as this contributes directly to the analysis of the problem at hand. A revised EIR must be prepared and recirculated to include the City Fire Department review and findings of the proposed project for review, analysis, and comment by the public and decision makers in order to comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and PRC 21003(b)).

The EIR has not provided any details regarding the requirements for emergency access or meaningful analysis of the project's compliance or noncompliance with these requirements. Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not comply with CEQA's requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include a finding of significance, as the EIR has not provided any meaningful evidence to support a less-than-significant finding.

6.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed Project, which will avoid or substantially lessen any of the significant effects of the Project (CEQA § 15126.6). The alternatives chosen for analysis include the CEQA required "No Project/No Development" alternative and only one other - Reduced Size Alternative. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This should include alternatives such as development of the site with a Pproject that reduces all of the proposed Project's significant and unavoidable impacts to a less than significant level, and a mixed-use Project that provides affordable housing and exclusively local-serving commercial uses that may reduce VMT, GHG emissions, and simultaneously improve Air Quality.

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed, and a revised EIR must be prepared for the proposed Project and recirculated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of

determination for this Project. Send all communications to Golden State Environmental Justice Alliance, P.O. Box 79222, Corona, CA 92877.

Sincerely,

Vashon Simien
Blum, Collins & Ho, LLP

Attachments:

1. SWAPE Technical Analysis

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

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December 19, 2025

Gary Ho
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10250 Constellation Boulevard, Ste. 2300
Los Angeles, CA 90067

Subject: **Comments on the Package Delivery Warehouse Planned Development Permit Project (SCH No. 2025080640)**

Dear Mr. Ho,

We have reviewed the November 2025 Draft Environmental Impact Report ("DEIR") and the August 2025 Initial Study/Environmental Checklist ("IS") for the Package Delivery Warehouse Planned Development Permit ("Project") located in the City of Santa Maria ("City"). The Project proposes to construct a 169,104-square-foot ("SF) warehouse and 990 parking spaces on the 32-acre site.

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

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

When reviewing the Project's CalEEMod output files, provided in the Air Quality and Greenhouse Gas Emissions Technical Report ("AQ Analysis") as Attachment 2 to the IS in Appendix A, we identified a model input related to Project construction that is inconsistent with information disclosed in the Project documents. A revised EIR should be prepared to include an updated air quality analysis that provides a more detailed evaluation of the impact that construction of the Project may have on local and regional air quality.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "West Stowell Delivery Station-Construction Detailed Report" model includes changes to the default individual construction phase lengths (see screenshot below) (Appendix A, Attachment 2, pp. 223).

Screen	Justification
Construction: Construction Phases	Demolition phase was not required as Project site is undeveloped and currently used for agricultural purposes. Grading-Building Foundation phase would require 14,272 cubic yard (CY) of soil import and Grading-Rest of Site phase would require 132,622 CY, for a project total of 146,894 CY of soil import.
Construction: Off-Road Equipment	Project-specific equipment fleet, all equipment greater than 50 HP would meet Tier 4 Final engine standards.
Construction: Dust From Material Movement	Grading-Building Foundation phase would require 14,272 cubic yard (CY) of soil import and Grading-Rest of Site phase would require 132,622 CY, for a project total of 146,894 CY of soil import.

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix A, pp. 210):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/20/2026	4/28/2026	5.00	7.00	—
Grading-Building Foundation	Grading	4/29/2026	6/9/2026	5.00	30.0	—
Grading-Rest of Site	Grading	6/10/2026	12/31/2026	5.00	147	—
Building Construction	Building Construction	6/10/2026	5/21/2027	5.00	248	—
Paving	Paving	5/22/2027	6/14/2027	5.00	16.0	—
Architectural Coating	Architectural Coating	5/22/2027	7/9/2027	5.00	35.0	—

The CalEEMod User's Guide requires any changes to model defaults be justified.[1] The justification provided for these changes is:

> "Demolition phase was not required as Project site is undeveloped and currently used for agricultural purposes. Grading-Building Foundation phase would require 14,272 cubic yard (CY) of soil import and Grading-Rest of Site phase would require 132,622 CY, for a project total of 146,894 CY of soil import" (Appendix A, pp. 223).

Regarding the Project's construction schedule, the DEIR states that "[c]onstruction of the proposed project is anticipated to occur over one year, from approximately March 2026 through July 2027" (p. ES-3). However, the construction schedule in the model remains unsupported.

While the DEIR justifies the total construction duration of 16 months, the DEIR fails to discuss the lengths of the *individual* construction phase lengths (e.g., demolition, grading, building construction, and architectural coating) whatsoever. According to the CalEEMod User's Guide:

[1] "CalEEMod User Guide." CAPCOA, April 2022, available at: https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf, p. 13, 14.

"CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA." [2]

As the DEIR fails to provide substantial evidence to support the revised individual construction phase lengths, we cannot verify the changes. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[3]

Table 3. CalEEMod Default Construction Phases [a]

Phase Type	Description
NON-LINEAR LAND USE TYPES (VERTICAL CONSTRUCTION)	
Demolition	Involves removing buildings or structures.
Site Preparation	Involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.
Grading	Involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.
Building Construction	Involves the construction of the foundation, structures, and buildings.
Paving	Involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.
Architectural Coating	Involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

By modifying the individual construction phase lengths, the model assumes there are more days to complete the construction activities required by the certain phases. The model therefore assumes fewer activities would be required per day for those phases and, consequently, less pollutants emitted per day. Until the construction phases are verified, the model may underestimate the peak daily emissions associated with certain construction activities. The model should have instead proportionately altered all phase lengths to match the proposed construction duration of 16 months.

Diesel Particulate Matter Emissions Inadequately Evaluated

The IS claims a less-than-significant health risk impact without conducting a quantified construction and operational health risk assessment ("HRA"). The DEIR and IS are thus inconsistent with CEQA's requirement to correlate the increase in emissions generated by the Project to the adverse impacts on human health caused by those emissions. Under CEQA, agencies must make a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences."[4] The DEIR and IS also fail to align with the California Department of Justice ("CA DOJ") guidelines for warehouse best practices, which recommends that all potential warehouse projects prepare a quantitative HRA in accordance with the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization

[2] "CalEEMod User Guide." CAPCOA, April 2022, available at: https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf, p. 10.
[3] "CalEEMod User Guide." CAPCOA, April 2022, available at: https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf, p. 34, Table 3.
[4] "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, a*vailable at:* https://law.justia.com/cases/california/supreme-court/2018/s219783a.html

responsible for providing guidance on conducting HRAs in California.[5] To comply with these requirements, an HRA should have been prepared to assess the potential health risks to nearby sensitive receptors from diesel particulate matter ("DPM") emissions generated during construction and operation. The sum of the Project's construction and operational cancer risk estimates should then be compared to the Santa Barbara County Air Pollution Control District ("SBCAPCD") threshold of 10 in one million.[6]

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 10,028 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 47, Table 14).

Table 13 Unmitigated Project Annual GHG Operational Emissions

Source Category	GHG Emissions ($MTCO_2e$)
Area	3
Mobile-Employee Vehicles (Onsite)	76
Mobile-Employee Vehicles (Offsite)	783
Mobile-Delivery Vans (Onsite)	66
Mobile-Delivery Vans (Offsite)	3,768
Mobile-Private Carrier Vehicles (Onsite)	18
Mobile-Private Carrier Vehicles (Offsite)	531
Mobile-Line-Haul Trucks (Onsite)	36
Mobile-Line-Haul Trucks (Offsite)[b]	4,344
Electricity Consumption-Buildings	15
Water	25
Waste	58
Refrigerants	224
Stationary (Fire Pump)	6
Construction (amortized)	85
Project Total	**10,038**

Source: NV5 2025 (Attachment 2)

[b] Offsite line-haul truck emissions include the total GHG emissions from haul truck travel within and outside Santa Barbara County

However, the IS fails to compare to a numeric threshold, stating:

> "In the absence of quantitative GHG thresholds and/or a qualified GHG reduction plan for use by a project to tier or streamline its environmental analysis, CEQA provides that a lead agency can rely on regulatory compliance to show a less –than significant GHG impact if the project complies with or exceeds those programs adopted by CARB or other state agencies" (p. 46).

[5] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." CA DOJ, *available at*: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf, p. 6.

[6] "Significant Risk Facilities." SBCAPCD, *available at*: https://www.ourair.org/significant-risk-facilities/.

While we acknowledge that the SBCAPCD has not adopted a numeric GHG threshold, other air districts like South Coast Air Quality Management District ("SCAQMD") have established a threshold of 10,000 MT CO_2e/year for industrial projects.[7] Although the Project is not formally subject to SCAQMD's guidelines, this threshold has been widely applied in CEQA practice as a reasonable, evidence-based benchmark for evaluating GHG emissions from large-scale industrial development.

In the absence of a locally adopted quantitative threshold, use of the SCAQMD industrial threshold provides a well-established and transparent framework for determining the significance of the Project's GHG emissions. To quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as estimated by the IS, to the SCAQMD numeric threshold of 10,000 MT CO_2e/year.

As previously stated, the IS/MND estimates that the Project would generate net annual GHG emissions of 10,028 MT CO_2e/year (p. 47, Table 14). When applying this threshold, the Project's air model indicates a potentially significant GHG impact (see table below).

IS/MND Annual Greenhouse Gas Emissions	
Proposed Project	**GHG Emissions**
Total Net Annual GHG Emissions (MT CO_2e/year)	10,028
SCAQMD Threshold for Industrial Facilities (MT CO_2e/year)	10,000
Exceeds?	***Yes***

As demonstrated above, the Project's estimated annual GHG emissions exceed the SCAQMD threshold for industrial facilities of 10,000 MT CO_2e/year, thus indicative of a potentially significant impact not previously addressed or mitigated in the IS. Due to the scale of the Project's emissions, we recommend the IS's less-than-significant GHG impact conclusion not be relied upon. A revised EIR should be prepared, including an updated GHG analysis and incorporating mitigation measures to reduce the Project's GHG emissions to the maximum extent feasible.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

The DEIR and IS are required under CEQA to implement all feasible mitigation to reduce the Project's potential impacts. As demonstrated above, the Project would result in potentially significant GHG impacts that we argue should be mitigated further.

[7] "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.

To reduce the GHG emissions associated with the Project, we recommend several mitigation measures (see list below). The CA DOJ recommends: [8]

- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces.
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

SCAQMD staff recommends: [9]

- Maximizing the use of solar energy by installing solar energy arrays.

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[8] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.

[9] "Draft Environmental Impact Report (EIR) for the Proposed CADO Menifee Industrial Warehouse Project (Proposed Project)." SCAQMD, April 2024, *available at*: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/april-2024/RVC240313-05.pdf?sfvrsn=8, p. 3.

- Using light-colored paving and roofing materials.
- Utilizing only Energy Star heating, cooling, and lighting devices and appliances.

CEQA Guidelines 15126.4 (c)(3) include "[o]ffsite measures, including offsets that are not otherwise required, to mitigate a projewct's emissions" as an option for GHG mitigation.[10] An example of this was in the case of the Oakland Sports and Mixed-Use Project, where off-site reduction measures in the neighboring communities were recommended.[11] We recommend consideration of local carbon offset programs to reduce the Project's GHG impacts as a measure of last result.

As demonstrated above, we have provided several mitigation measures that would reduce Project-related GHG emissions. These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently reduce emissions released during Project construction and operation.

A revised EIR should be prepared that includes all feasible mitigation measures, as well as an updated GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to the maximum extent feasible. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's potentially significant emissions are reduced to the maximum extent possible.

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,

[10] "Cal. Code Regs. tit. 14 § 15126.4." CEQA Guidelines, May 2024, *available at*: https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-9-contents-of-environmental-impact-reports/section-151264-consideration-and-discussion-of-mitigation-measures-proposed-to-minimize-significant-effects.

[11] "Cal. Pub. Resources Code § 21168.6.7." 2023, *available at*: https://casetext.com/statute/california-codes/california-public-resources-code/division-13-environmental-quality/chapter-6-limitations/section-2116867-oakland-sports-and-mixed-use-project-conditions-for-approval-certification-of-project-for-streamlining.

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

Paul E. Rosenfeld, Ph.D.

Attachment A: Matt Hagemann CV
Attachment B: Paul Rosenfeld CV

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

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- **Geologic and Hydrogeologic Characterization, Investigation and Remediation Strategies**
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California Certified Hydrogeologist, C.Hg.

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 Experience:
30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. Spent nine years with the U.S. EPA in the Resource Conservation Recovery Act (RCRA) and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where I identified emerging threats to groundwater. While with EPA, I served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. 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, I developed extensive client relationships and has managed complex projects that include consultations as an expert witness and a regulatory specialist, and managing projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions held include:

Government:
Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);

Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
Geologist, U.S. Forest Service (1986 – 1998).

Educational:
Geology Instructor, Golden West College, 2010 – 2104, 2017;
Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
Instructor, College of Marin, Department of Science (1990 – 1995).

Private Sector:
Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);
Executive Director, Orange Coast Watch (2001 – 2004);
Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, responsibilities have included:

- Lead analyst and testifying expert, for both plaintiffs and defendants, 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.
- Recommending 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 exposure to hazards from toxins.
- Stormwater analysis, sampling and best management practice evaluation, for both government agencies and corporate clients, at more than 150 industrial facilities.
- Serving as expert witness for both plaintiffs and defendants in cases including contamination of groundwater, CERCLAcompliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns, for both government agencies and corporate clients.
- Lead analyst and testifying expert in the review of environmental issues in license applicationsfor 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., 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.
- Lead author for a multi-volume remedial investigation report for an operating school in LosAngeles that met strict Sate of California regulatory requirements.
- Development of strategic approaches for cleanup of contaminated sites in consultation withclients and regulators.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, 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 included:

- Leading efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiating a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identifying 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, developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. 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, 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 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. Prepared geologic reports, conducted 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.

Served as a hydrogeologist with the RCRA Hazardous Waste program. Duties included:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliancewith 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, directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following:

- 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 Mexicoand 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 as senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advising the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinkingwater supplies.
- Shaping EPA's national response to these threats by serving on workgroups and by contributingto guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improving the technical training of EPA's scientific and engineering staff.
- Earning 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.
- Establishing national protocol for the peer review of scientific documents.

Geology:

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

- Mapping geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinating research with community stakeholders who were concerned with natural resource protection.
- Characterizing the geology of an aquifer that serves as the sole source of drinking water for thecity of Medford, Oregon.

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

Duties included the following:

- Supervising year-long effort for soil and groundwater sampling.
- Conducting aquifer tests.
- Investigating active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, 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.
- Part time geology instructor at Golden West College in Huntington Beach, California from 2010 to 2014 and in 2017.

Summary of Testimony Experience Over Past Four Years

In Re New Jersey Department of Environmental Protection et al. vs. E.I. DuPont de Nemours and Company, in the United States District Court, District of New Jersey, Civil Action No. 1:19-cv-14766-RMB-JBC. Deposition in 2025. Representing Plaintiffs in matters regarding contamination of groundwater, wastewater, soil, and air with per- and poly-fluoroalkyl substances.

In Re Edmond Asher, et al., vs. RTX Corporation (f/k/a Raytheon Technologies Corporation, et al.) in the County of Huntington Superior Court, Indiana, Cause number 35D01-2006-CT-000338. Deposition in 2024. Representing Plaintiffs in matters regarding contamination of groundwater and soil vapor with trichlorethylene.

In Re Wright vs Consolidated Rail Corporation In the Circuit Court of Cook County, Illinois, Case No: 21L3966. Deposition in 2023, Representing Plaintiff in matters involving groundwater and drinking water contamination of perchloroethylene, trichlorethylene, 1,2-dichloroethane, and carbon tetrachloride.

In Re Behr Dayton Thermal Products LLC In the United States District Court for the Southern District of Ohio Western Division at Dayton, Case No: 08-cv-326. Deposition in 2022. Representing Plaintiff in matters regarding contamination of groundwater and indoor air with perchloroethylene and trichloethelene.

Orange County Water District vs. Sabic Innovative Plastics US, LLC, et al. In the Court of Appeal, Fourth District,

Division 1, California, Case No: D070553. Deposition in 2020. Representing Plaintiff in matters involving compliance with The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
Los Angeles Waterkeeper vs. AAA Plating and Inspection, Inc. In the United States District Court for the Central District of California, Case No: No. CV 18-5916 PA (GJSx). Deposition in 2019. Expert witness representing Plaintiff in matters involving contaminated stormwater runoff at an industrial facility in Compton, California.

Californians for Alternatives to Toxics vs. Schneider Dock and Intermodal Facility. In the United States District Court for the Northern District of California, Case No: 3:17-cv-05287-JST. Deposition in 2019. Expert witness representing Plaintiff in matters involving contaminated stormwater runoff at an industrial facility in Eureka, California.

Bells et al. vs. The 3M Company et al. In the United States District Court for the District of Colorado, Case No: 1:16-CV-02531-RBJ. Deposition in 2018. Expert witness representing Plaintiff on matters regarding the general hydrogeological conditions present in an area impacted by per- and poly-fluoroalkyl substances.

Ungar vs. Foundation for Affordable Housing. In the Superior Court, State of California, Los Angeles County, Case No. BC628890 Deposition in 2017. Expert witness representing defendant on matters involving alleged drinking water contamination.

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 andPublic 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 atschools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBEReleases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells.

Presentation to the Ground Water and Environmental Law Conference, National GroundwaterAssociation.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Waterin 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 Waterin 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 atribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to ameeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking WaterSupplies. 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 ofthe National Groundwater Association.

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

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to AddressImpacts 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 andState Underground Storage Tank Program managers.

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

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 StorageTanks.

Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water 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 WatercraftUsage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George WrightSociety 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 AirStation, 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, Airand Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Basesin 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.R., McCarthy, S.J. *et al.* Camp Lejeune Marine Cancer Risk Assessment for Exposure to Contaminated Drinking Water From 1955 to 1987. *Water Air Soil Pollut* **235**, 124 (2024). https://doi.org/10.1007/s11270-023-06863-y.

Rosenfeld P.E., Spaeth K.R., Remy L.L., Byers V., Muerth S.A., Hallman R,C., Summers-Evans J., Barker S. (2023) Perfluoroalkyl substances exposure in firefighters: Sources and implications, *Environmental Research*, Volume 220, https://doi.org/10.1016/j.envres.2022.115164.

Rosenfeld P.E. and Spaeth K.R., (2023) Authors' Response to Letter to the Editor from Bullock and Ramacciotti, *Water Air Soil Pollution* Volume 234, https://doi.org/10.1007/s11270-023-06165-3

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.

Cheremisinoff, N.P., **Rosenfeld, P.E.** Davletshin, A.R. (2008). ***Responsible Care***. Gulf Publishing. Texas.

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 affects 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. Master's 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. Bachelor's 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 at 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. The 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 the 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 the 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 the 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 District Court of Harris County Texas
Mt Davis Interest, Inc v Sesco Cement Corp
Cause No 2023-26512
Trial 6-6-2-25

In the United States Southern District of New York
Gallo vs Avon Products Inc., et al
Civil Action No.: 1:23-cv-2023
Deposition 4-24-2025

In Vanderburgh Superior Court 5, County of Vanderburgh, Indiana
Markello v CSX
Civil Action No 82D05-2011-CT-004962
Deposition 3-26-25

Iin the Circuit Court of Cook County Illinois
Jarosiewicz v Northeast Regional Railroad
Case No 2023 L 002290
Deposition 2-27-25

In the District Court 191st Judicial District Dallas County
Acklin v Poly America International
Cause No DC-22-08610
Deposition 1-8-2025

United States District Court, Norther District of California
Asustin Vs Monsanto
Case No 2:23-cv-272
Deposition 12-20-25

In Jefferson Circuit Court Division One, Louisville, Kentucky
Stafford vs, CSX
Case No. 18-CI-001790

Deposition: 8-27-24

In the Twenty-Second Judicial Circuit of St. Louis. State of Missouri
Patricia Godfrey vs, Amtrak
Case No. 2122-CC-00525
Deposition: 7-17-24

In the Circuit Court of Jefferson County Alabama
Linda Early Vs. CSX
Case number CV-2021-00241
Deposition 6-24-24

In the Court of Common Please Lucas County, Ohio
Brenda Conkright vs. CSX
Case No. G-4801-CI-0202102664-000
Deposition: 6-4-24

In the Commonwealth of Kentucky, Greenup Circuit Court
Patsy Sue Napier vs. CSX
Case No. 19-CI-0012
Deposition: 5-8-2-24

In United States District Court of Hawaii
Patrick Feindt, Jr. et al. vs. The United States of America
Case No. 1:22-cv-LEK-KJM
Trial 3-29-24 and 4-5-24

In the District Court of Hood County State of Texas
Artie Gray vs. Exxon Mobil
Case No. C-2018047
Rosenfeld Deposition:4-22-2024

In the Elkhart Superior Court State of Indiana
Estate of Clark Stacy vs. Penn Central Corporation
Cause No 2D01-2001-CT-00007
Rosenfeld Deposition 1-25-2024 and 3-7-2024

In the Circuit Court of Trempealeau County, State of Wisconsin
Michael J. Sylla et al. vs. High-Crush Whitehall LLC
Case No. 2019-CV-63, 2019-CV-64, 2019-CV-65, 2019-CV-66
Rosenfeld Deposition: 3-5-2024

In the Circuit Court of Trempealeau County, State of Wisconsin
Leland Drangstveit vs. High-Crush Blair LLC
Case No. 19-CV-66
Rosenfeld Deposition 3-5-2024

In the Circuit Court of Jefferson County Alabama
Donald Lee Ashworth vs. CSX Transportation Inc.
Case No CV-2021-901261
Rosenfeld Deposition 1-23-2024

In the United States District Court for the Eastern District of Wisconsin
Gary L Siepe vs. Soo Line Railroad
Case No. 2:21-cv-00919
Rosenfeld Deposition 1-19-2024

In the United States District Court for the Western District of Louisiana
Ricky Bush v. Clean Harbors Colfax LLC
Case No. 1:22-cv-02026-DDD-JPM
Rosenfeld Deposition 12-18-2023 and 1-15-2024

In United States District Court of Hawaii
Patrick Feindt, Jr. et al. vs. The United States of America
Case No. 1:22-cv-LEK-KJM
Rosenfeld Deposition 11-29-2023

In the Circuit Court for the Twentieth Judicial Circuit St. Clair County, Illinois
Timothy Gray vs. Rural King et al.
Case No 2022-LA-355
Rosenfeld Deposition 9-26-2023

In United States District Court Eastern District of Wisconsin
Gary L. Siepe vs. Soo Line Railroad Company
Case No. 2:21-cv-00919
Rosenfeld Deposition 9-15-2023

In the Circuit Court of Cook County Illinois
Donald Fox vs. BNSF
Case No. 2021 L12
Rosenfeld Deposition 9-12-2023

In the Court of Common Please Cuyahoga County, Ohio
Thomas Schleich vs. Penn Central Corporation
Lead Case No. CV-20-939184
Rosenfeld Deposition 8-27-2023

In the Circuit Court of Jackson County Missouri at Kansas City
Timothy Dalsing vs. BNSF
Case No. No. 2216-cv06539
Rosenfeld Deposition 7-28-2023

In the United States District Court for the Southern District of Texas Houston Division
International Terminals Company LLC Deer Park Fire Litigation
Lead Case No. 4:19-cv-01460
Rosenfeld Deposition 7-25-2023

In the Circuit Court of Livingston County Missouri
Shirley Ralls vs. Canadian Pacific Railway and Soo Lind Railroad
Case No. 28LV-CV0020
Rosenfeld Daubert Hearing 7-18-2023 Trial Testimony 7-19-2023

In the Circuit Court of Cook County Illinois
Brenda Wright vs. Penn Central and Conrail
Case No. No. 2032L003966
Rosenfeld Deposition 6-13-2023

In the Circuit Court Common Please Philadelphia of Jefferson County Alabama
Frank Belle vs. Birmingham Southern Railroad Company et al.
Case No. 01-cv-2021-900901.00
Rosenfeld Deposition 4-6-2023

In the Circuit Court of Jefferson County Alabama
Linda De Gregorio vs. Penn Central
Case No. 002278
Rosenfeld Deposition 3-27-20203

In the United States District Court Eastern District of New York
Rosalie Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-16-2023

In the Superior Court of Washington, Spokane County
Judy Cundy vs. BNSF
Case No. 21-2-03718-32
Rosenfeld Deposition 3-9-2023

In The Court of Common Pleas of Philadelphia County, PA Civil Trial Division
Feaster v Conrail
Case No. 001075
Rosenfeld Deposition 2-1-2023

In United States District Court for the Central District of Illinois
Sherman vs. BNSF
Case No. 3:17-cv-01192
Rosenfeld Deposition 1-18-2023

In United States District Court District of Colorado
Gonzales vs. BNSF
Case No. 1:21-cv-01690
Rosenfeld Deposition 1-17-2023

In United States District Court District of Colorado
Abeyta vs. BNSF
Case No. 1:21-cv-01689-KMT
Rosenfeld Deposition 1-3-2023

In United States District Court For The Easter District of Louisiana
Nathaniel Smith vs. Illinois Central Railroad
Case No. 2:21-cv-01235
Rosenfeld Deposition 11-30-2022

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, Trial 1-10-2023

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. vs 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., Plaintifs, 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. vs. 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 United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, vs. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the County of Kern, Unlimited Jurisdiction
Rose Propagation Services vs. Heppe Enterprises
Case No. S-1500-CV-278190, LHB
Rosenfeld Deposition: May 2014

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

In the Court of Galveston County, Texas 56th Judicial District
MDL Litigation Regarding Texas City Refinery Ultracracker Emission Event Litigation
Cause No. 10-UC-0001
Rosenfeld Deposition: March 2013
Rosenfeld Trial: September 2013

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the United States District court of Southern District of California
United States of America, Plaintiff vs. 2,560 Acres of Land, more or less, located in Imperial County, State of California; and Donald L. Crawford, et. al.
Civil No. 3:11-cv-02258-IEG-RBB
Rosenfeld Deposition: December 2012, January 2013

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 Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.