



Autumn Wind Associates

Air Quality CEQA Analysis and Consulting Services

916.719.5472 ▪ ggilbert@autumnwind.us

July 18, 2017

RE: Harvard-Westlake FEIR ENV-2013-0150-EIR SCH NO. 2013041033; Air Quality Comments

At the request of the group Save Coldwater Canyon, Autumn Wind Associates has reviewed the above-referenced FEIR and provides these comments regarding proposed construction mitigation.

I. MM-AQ-10 Remains Flawed by Subjective Wording

At FEIR pg. 3-426, the Lead Agency has responded to concerns we expressed at the RDEIR stage regarding flawed, subjectively interpretable mitigation language within the RDEIR's Mitigation Measure MM-AQ-10:

" Mitigation Measure MM-AQ-10 would be monitored and enforced through the Project's Mitigation Monitoring and Reporting Program (MMP), as required by CEQA. Furthermore, Mitigation Measure MM-AQ-10 has been enhanced and revised to state that applicable bid documents from contractors must include the use of the specific emissions controls as described in the measure and that the contractors must demonstrate the ability to supply such equipment to the Development Site and provide a copy of each unit's certified tier specification upon request at the time of equipment mobilization. These revisions have been incorporated into the Chapter 4, Corrections and Additions, of this FEIR. Because Mitigation Measure MM-AQ-10 is revised to clearly state the use of Tier 3 (equipped with a diesel particulate filter) or Tier 4 equipment for most of the construction equipment, the measure is enforceable and construction delays due to implementation of Mitigation Measure MM-AQ-10 are not anticipated."

We appreciate the Lead Agency's efforts to enhance and revise MM-AQ-10 in the FEIR, and take note of those considerable corrections to air quality analysis and emissions estimates that have resulted from public comments submitted to the Lead Agency. Yet despite revisions made to MM-AQ-10, the measure's components remain subjectively interpretable and will, as written, permit use of higher-emitting construction equipment when lower-emitting equipment is readily available and feasible for use on the project. The measure is unlikely to deliver the emission reductions assumed by the Lead Agency. Combined with permitted use of older, higher-emitting construction equipment, the measure

ensures additional, unnecessary emissions of criteria, GHG, and toxic air contaminant pollutants into an already heavily-polluted air basin. Consistent with the availability of Tier 4 diesel equipment of the types slated for use at the project and use of this equipment exclusively in mitigation applied to other CEQA-reviewed development projects in the Los Angeles area, this measure must be re-written to clearly state that no construction equipment will be allowed unless it operates at Tier 4 or better status.

Here are the first several lines of revised MM-AQ-10 (FEIR pg. 5-10):

“The Applicant shall utilize off-road diesel-powered construction equipment that meets the off-road emissions standards established for the equipment listed below. Pole power shall be made available for use with electric tools, equipment, lighting, etc. These requirements shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit’s certified tier specification and CARB or SCAQMD operating permit shall be available upon request at the time of mobilization of each applicable unit of equipment.

As excerpted, the first sentence is made general in nature by its failure to require that each and every piece of offroad construction equipment types identified in the measure meet the measure-specified Tier emission level. Read carefully, it can be interpreted to require that only one piece of equipment, of each type and at its specified Tier level, is sufficient for compliance. Under such an interpretation, one piece of equipment (by type identified in the measure) operating at the measure-specified Tier would then permit the Applicant or contractor to employ additional pieces of the same equipment type at worse emission Tiers or levels. *How much* construction equipment, by type and at the specified Tiers or level, or with the latest BACT, is never specified in MM-AQ-10, leaving open the potential for subjective interpretation, confusion, disagreement, and ultimately emissions increments that exceed the estimates provided in the FEIR.

The absence of certain objective terms in the revised measure remains conspicuous, and so we raise the matter again in this second letter. The FEIR’s MM-AQ-10 does not say that the Applicant “shall utilize **only** offroad diesel-powered construction equipment” of the type and emission level specified at the bottom of the measure, or, similarly, that **each and every piece** of equipment specified in the measure must meet the specified emission level. Absent those or similar terms, it is possible that so long as the Applicant has one of each equipment type meeting the measure’s specified emissions level at the project site they may then claim compliance with the measure. Were this to occur, the emissions estimates in the EIR would be overrun, significance determinations invalidated, and sensitive receptors such as elderly and young residents in the nearby community would suffer with yet worse air quality. By not stipulating that every piece of construction equipment subject to MM-AQ-10 must meet its specified emission Tier and level, the contractor is given wide latitude to use older, higher-emitting equipment.

This is unacceptable, considering that lower-emitting equipment is readily available and in use in the region. It also unacceptable that the EIR would allow mitigation with higher-emitting equipment in the worst air quality region in the country.

II. MM-AQ-10 Continues to Permit Use of Higher-Emitting Construction Equipment

At FEIR Response-to-Comment pg. 3-425, **9.1R-20 Response**, the Lead Agency's first paragraph of the section responds to our concerns submitted in March 2016 that not less than Tier 4 equipment, widely available in the southern CA region in the types to be used at the project, be made mandatory for Harvard-Westlake's construction phases to reduce its significant emissions of criteria pollutants, GHG, and diesel-related toxics. The South Coast region is once again rated the worst in the country for air pollution¹, and increments of additional pollution resulting from use of less stringent mitigation in the Harvard-Westlake School construction project are both inappropriate and unnecessary. Diesels emit NOx, and PM2.5 emissions (containing diesel particulate matter, a toxic air contaminant); older diesels emit much higher NOx and PM levels than do newer "Tiered" diesels; NOx is an ozone pre-cursor with ozone remaining at "extreme" Clean Air Act-designation throughout the South Coast air basin; PM2.5 levels throughout the South Coast air basin similarly, routinely exceed health based standards by a wide margin.

Yet while the Lead Agency's first paragraph at 9.1R-20 Response indicates agreement that project construction equipment types have been available in Tier 4 configurations for a few years ("In general, all model year 2014 or 2015 equipment and later are required to meet the final Tier 4 standards."), it inexplicably ends with implied acceptance of higher-emitting Tier 3 diesel equipment for Harvard Westlake project mitigation:

Therefore, off-road construction equipment that would meet the Tier 3 or better standards have been generally available starting in 2008 for the types and sizes of equipment anticipated to be used for the Project.

No explanation is given to explain why, if Tier 4 equipment has been available for a few years, the Lead Agency will permit use of Tier 3 equipment at the project. The leap to permitting use of dirtier Tier 3 equipment and mention of the 2008 manufacturing deadline in the excerpt above is both irrelevant and inappropriate as mitigation since the compressor and concrete pump equipment types noted in the

¹"California again leads list with 6 of the top 10 most polluted U.S. cities"; USA Today, April 19, 2017. See: <https://www.usatoday.com/story/news/nation/2017/04/19/most-polluted-cities-california/100615102/>. The South Coast Air Basin continues its decades-long history of nonattainment and holds the record for consistently being annually rated the worst, or infrequently, the second-worst air quality in the country.

measure for Tier 3 status have been available for well long enough in Tier 4 configuration in the South Coast to be considered reasonable and feasible. (See, for example, the Schwing concrete pump line with T4F options since 2015, sold or rented at numerous locations in southern CA.²)

Requiring exclusive use of Tier 4 in diesel construction equipment for mitigation of emissions is not new; CEQA projects, for example, in Sacramento and Los Angeles have required their use for some time. Tier 4 equipment types in MM-AQ-10 have been required as CEQA mitigation on other projects subject to environmental review and mitigation, underscoring their availability, cost-effectiveness, and significant emissions benefits over Tier 3 equipment.³ Tier 3 diesels date to 2006 - 2008; EPA Tier 4 emission standards were phased in between 2008 and 2015, requiring that PM and NOx emissions be reduced by about 90% from Tier 3 levels⁴. While equipment costs for Tier 4 diesels have exceeded those of preceding Tier models, they have been determined by the CA Air Resources Board to be a cost-effective diesel emissions control measure⁵, and similarly by the US EPA⁶. Construction equipment identified in MM-AQ-10 will operate for years, and incremental increases in costs for Tier 4 equipment are minimal when amortized over equipment life. Without evidence to the contrary, the Lead Agency has provided no substantive rationale for infeasibility for required, exclusive use of Tier 4 or better construction equipment at the Harvard Westlake School Expansion project. Our review of FEIR **9.1R-20 Response** shows that it essentially sidesteps the matter of whether Tier 4 equipment is infeasible, nor does it respond substantively to our March 2013 comment letter requesting exclusive use only of Tier 4 or better diesel equipment at the project. Given this FEIR response, we once again reiterate the strong recommendation that **MM-AQ-10** should require *exclusive* use of Tier 4 in diesel construction equipment.

III. Mitigation Requiring Exclusive Reliance on Tier 4 Diesels Is Well Established

Other entities in the Los Angeles area have attached mitigation requirements to their projects that stipulate that all diesel offroad construction equipment must meet, at the least, Tier 4 requirements. For example, the Los Angeles County Metropolitan Transportation Authority has for a few years mitigated

² See Schwing SP500 announcement regarding availability in T4F status:
“<http://concretepumping.com/topic/schwing-sp-500-ready-for-tier-4-final-now>”

³ Folsom Dam Modification Project, Approach Channel SEIS/EIR; December 2012, pg. 142: Folsom dam modification project must utilize only Tier 4 diesel equipment commencing 2015. Based on LA County Metro Transportation Authority’s Green Construction Policy requirements.

⁴ Diesel Net; “US Emission Standards Non-Road Diesel Engines”;
<https://www.dieselnets.com/standards/us/nonroad.php>

⁵ CARB; “In-Use, Offroad Diesel-Fueled Fleet Regulation”; <https://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>;
and “Stationary Diesel Engine ATCM”; <https://www.arb.ca.gov/diesel/statporthome.htm>.

⁶ US EPA; “Nonroad Compression Ignition Engines; Exhaust Emission Standards”.
<http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1000A05.pdf>

their construction emissions by requiring use of only Tier 4 or better construction equipment. The excerpt below is LACMTA's Green Construction Policy⁷, pg. 01-35-66-5:

*From January 1, 2015 and onwards: All off-road diesel-powered construction equipment greater than 50 hp shall meet **Tier-4 off-road emission standards at a minimum.** (Emphasis added.) In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the Contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations*

This construction equipment mitigation makes it clear that **all** off-road project equipment with greater than 50 hp used on LACMTA projects must meet Tier 4 emission standards at a minimum⁸, along with utilizing BACT and Level 3 particulate controls. LACMTA would not have required this mitigation if Tier 4 construction equipment types, necessary for their widely-varied construction projects, were unavailable or too costly for hire, rent, or purchase. Other Lead Agencies⁹ have adopted LACMTA's mitigation requiring exclusive use of Tier 4 diesel equipment as reasonable and feasible.

The City of Los Angeles, however, continues to provide Harvard-Westlake School Expansion project mitigation that permits use of high- and higher-emitting construction equipment. No substantive information is provided that explains why mitigating with available, lower-emitting diesel equipment, already in use in the air basin and required as construction mitigation for other projects in the Los Angeles area, is infeasible. As written, MM-AQ-10 will unnecessarily increase local and regional air quality impacts by permitting use of higher-emitting Tier 3 equipment and five equipment types for which no emissions limitations have been applied. Against the backdrop of extreme air pollution and CEQA's interest in mitigating as effectively as reasonably possible, the Lead Agency's reliance on higher-emitting equipment in MM-AQ-10 is unacceptable.

7 LACMTA Green Construction Policy; revised 09/05/12;

<https://partners.skanska.com/usa/projects/098010/Q/C0980%20Conformed%20Contract%20Documents/7. All Other Project Definition Docs/Metro Baseline Specs/Division 01 General Requirements Rebaselined 092812.pdf>

8 See LACMTA's Green Construction Policy; section 3.01 – Construction Equipment Air Emission Requirements, item 4c; pg. 01-35-66; Revision 1; 09/05/2012.

<https://partners.skanska.com/usa/projects/098010/Q/C0980%20Conformed%20Contract%20Documents/7. All Other Project Definition Docs/Metro Baseline Specs/Division 01 General Requirements Rebaselined 092812.pdf>

⁹ See Folsom Dam Modification Project, Approach Channel SEIS/EIR; December 2012, pg. 142: Folsom dam modification project is required by the Lead Agency to utilize only Tier 4 diesel equipment, commencing Jan. 2015. Based on LA County Metro Transportation Authority's Green Construction Policy requirements.

IV. MM-AQ-10 Allows Five Construction Equipment Types with Unrestricted Emissions; T4F Equipment is Available and Should Have Been Required

MM-AQ-10 permits use by the Applicant or their contractor(s) of five types of equipment where no emissions Tiers or ratings have been specified. The five types of diesel-powered equipment (Bobcat, crane, compactor, roller, Asphalt Screed) operate in southern CA at varying Tiers and emission rates that include older, lower-Tier models. Because MM-AQ-10 fails to specify emission limits or requirements for these five equipment types, their operation at the project could easily exceed emissions estimates found in the EIR.

The Lead Agency has provided no information to explain or justify the lack of emissions limits applied to these equipment types or even why they were chosen to allow for permissible, unlimited emissions rates. Conversely, the project must employ all reasonable, feasible mitigation to ensure the project's air quality impacts remain less than significant; permitting what may be uncontrolled, unregulated emission levels from those five equipment types is fundamentally inconsistent with CEQA's mitigation objectives. Because much lower-emitting construction equipment is available and in regular use in the region, the Lead Agency must require its use on the Harvard-Westlake School expansion project or explain why it is infeasible to do so. The FEIR has failed on both counts.

Finally, while MM-AQ-10 and Response 9.1R-20 fail to provide justification or evidence warranting the inclusion of several equipment types without emissions limitations or Tiers, any implication that those types are not readily available in Tier 4 status in the region is false. Our research reflects ready availability of Tier 4 equipment product in southern CA, based on discussions with equipment representatives and review of online equipment listings in the South Coast area:

1. The concrete pump is available in Tier 4 Final ("T4F") on trailerized units from Reed, Olin, and Transcrete. Truck-mounted, PTO pumps are available with current onroad engine power; 2010 and later onroad trucks emit at lower levels than do Tier 4 offroad engines.
2. Bobcat – "Skid-Steer" T4F models available from Volvo, Case, John Deere. T4-Interim available from multiple mfr's.
3. Crane – T4F available from Volvo. Truck-mounted hydro cranes with late-model onroad engine power available locally and regionally for rent, purchase, or hire.
4. Compactor— T4F available from Volvo, Doosan, CAT.
5. Compressor – T4F available from multiple mfr's, including Doosan, Rotair, Sullair, MMD Airman, etc.
5. Roller -- T4F available from Volvo, Doosan, Hyundai, Dynapac.

6. Asphalt Screed: T4F most likely available from Volvo, depending on size.

It is regrettable that no mention is made in the EIR's air quality or environmental setting sections that under the 2016 State Implementation Plan (the blueprint for how the region's air quality will re-attain ambient air quality standards required by law) the South Coast must reduce ozone pre-cursor (NOx) emissions, including those of construction equipment that will operate at the Harvard Westlake school project, by 80% over current levels. Daunting reductions of PM2.5, far beyond those previously achieved in the region, will also be needed. No one will dispute that the region has struggled—and failed repeatedly—to achieve previous and less stringent SIP-required NOx and PM2.5 reduction targets. Against that contextual backdrop, it makes no sense (other than for favoring the Applicant's interests) that the City of Los Angeles persists with air quality mitigations for Harvard-Westlake (along with other CEQA projects) that permit use of higher-emitting equipment when lower-emitting equipment is available and routinely required exclusively as mitigation by at least one other major, local Lead Agency (LACMTA).

V. MM-N-07 Truck Staging Was Not Adequately Evaluated for Potential TAC and PM2.5 Impacts to Sensitive Receptors

Onroad heavy-duty diesel construction haul vehicles are estimated in the EIR to average 160 trips per day for offsite landfilling of excavated soils. At FEIR pg. 3-387, the Lead Agency has stated that the majority of those trips will occur during weekdays and between 9:00 AM and 4:00 PM (7 hours/day). This translates to about 23 heavy-duty trucks per hour, or one 80,000 lb. GVWR truck processing in and out of the site and area every two and a half minutes. To reduce the effects of what may still cause a logistical nightmare for local traffic, trucks will likely require staging while waiting for loading (excavation soils) before exiting for travel to the landfill. It appears, however, that emissions from trucks in the staging areas were not evaluated in the FEIR for their potential to cause localized issues with PM2.5 emissions or impacts to adjacent sensitive receptors.

Two sites have been identified for staging (see pg. 2-17, 2-20, 3-53, etc.)—the primary staging area will be in the excavation/construction area and then “to the extent needed, the Southern Parking Lot (east side of Coldwater Canyon)”.

This information, however, conflicts with MM-N-7 which requires that construction staging areas are to be “located away from sensitive uses”. Pre-school children and the elderly are located nearby, as are students attending Harvard-Westlake. Residences are within a stone's throw immediately to the east of the “Southern Parking Lot” area, and are adjacent to the construction site on the west side of Coldwater Canyon Avenue—all qualify as sensitive receptors and are, therefore, in “sensitive uses” locations proscribed by MM-N-7.

While the Lead Agency has argued that the staging areas must be “located away” from sensitive receptor locations by mitigation requirement, contradicting information in the FEIR places construction vehicle and truck staging areas very near to those receptor locations. No information is provided in the FEIR that provides adequate detail to show that emissions estimates were provided for trucks and other equipment moving in and out of the staging area(s).

Haul trucks alone, at an estimated 23 trucks per hour (for 7 hours each day), are likely to be staged not in stationary mode with engines turned off while waiting, but will instead queue up in a train of vehicles moving slowly across the staging area on their way to the fill area before departing, loaded, for the landfill. How were those trucks evaluated for their potentially significant impacts to sensitive receptors around the staging areas? We are unable to find substantive information in the FEIR that discusses or explains how staged and slowly-moving trucks were evaluated for their potential emission impacts to those sensitive receptors. Just as importantly, the FEIR fails to provide evidence or discussion on how those staged vehicles were treated in critical assumptions necessary for parsing and then evaluating their contributions to acute and chronic health risks as determined in the construction HRA.

Local decision-makers, residents, and parents of pre-school and school-age children should be able to clearly understand from the FEIR/EIR what will occur with trucks moving into, across and then out of the two identified staging areas, since they will emit considerable quantities of criteria and toxic DPM emissions near sensitive receptors. Contradictory information provided by the Lead Agency regarding staging areas that should be (but are not) located away from sensitive receptors, along with the lack of information that would identify and explain how those staged truck emissions were developed for inclusion in AERMOD modeling, reflects significant deficiencies in the FEIR’s estimation, review, and mitigation of the Harvard-Westlake School Expansion construction project’s air quality impacts. To correct those deficiencies, the FEIR’s Air Quality element must be revised to eliminate the aforementioned conflicts, along with presentation and explanation of inputs and assumptions regarding staged truck-related details used in the FEIR’s AERMOD health-risk modeling.

Should you have any questions or comments regarding this comment letter, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Gilbert", is written over a horizontal line.

Greg Gilbert

Autumn Wind Associates

STATEMENT OF QUALIFICATIONS
Greg Gilbert
Autumn Wind Associates

Greg Gilbert is director and founder of Autumn Wind Associates, located northeast of Sacramento, CA. AWA provides expert review, analysis, and estimation of potential air quality and related environmental impacts of proposed land-use development projects involving indirect- (mobile) and stationary (operating under air agency permit) sources of air pollution. He has consulted on air quality land use planning, mobile, and stationary source matters and projects to private and public clients since leaving public service as an air agency manager in 2000. Previously, he was national marketing director for an emissions catalyst products and technology firm with international markets in mobile and stationary sources. Between 1990 and 2000 Mr. Gilbert was employed in two California air agencies, most recently as project manager in the Mobile Source Division of the Sacramento Metropolitan Air Quality Management District (SMAQMD). While at SMAQMD Mr. Gilbert was responsible for managing development and implementation of the agency's heavy-duty diesel vehicle low-emission incentive program that would later evolve into the statewide Moyer Program; the evaluation of land use-related air quality emission impacts and control strategies, development of California Environmental Quality Act (CEQA) thresholds of significance and mitigations to reduce, offset, or eliminate air quality impacts of new land use; development of air-related CEQA guidance; and creation of the first air quality CEQA mitigation fee program with percentage-based emission reduction mitigation choices provided to the developer.

Since 2001, AWA has provided consulting expertise to private entities and air agencies, conducted research on construction practices and equipment emissions, assisted with development of CEQA land-use guidance documents and mitigation strategies for CA air quality agencies, and provided analysis and modeling of potential air quality impacts identified primarily in Mitigated Negative Declarations and Environmental Impact Reports for proposed land use development projects throughout California. Mr. Gilbert reviews and provides expert written and testimony on CEQA- and development-related project-specific environmental analysis, mitigation, and documentation for a wide range of public-, private-, and environmental-sector clients, including law firms specializing in CEQA-NEPA cases.