

**PLANNING DEPARTMENT TRANSMITTAL
TO THE CITY CLERK'S OFFICE**
SUPPLEMENTAL
CF 17-1272-S1

CITY PLANNING CASE:	ENVIRONMENTAL DOCUMENT:	COUNCIL DISTRICT:
CPC-2016-3142-GPA-VCU-CUB-DB-SPR	ENV-2016-3144-MND	CD 1
PROJECT ADDRESS:		
1930 W. WILSHIRE BOULEVARD		
PLANNER CONTACT INFORMATION:	TELEPHONE NUMBER:	EMAIL ADDRESS:
JENNA MONTERROSA	213-978-1377	JENNA.MONTERROSA@LACITY.ORG

NOTES / INSTRUCTION(S):	
ENCLOSED, PLEASE FIND A COPY OF AN APPEAL FILED BY MR. LUIS CABRALES, REGARDING CASE NO. ENV-2016-3144-MND.	
TRANSMITTED BY:	TRANSMITTAL DATE:
Claudia Rodriguez Council Liaison	01/12/2018

ORIGINAL



APPLICATIONS:

APPEAL APPLICATION

This application is to be used for any appeals authorized by the Los Angeles Municipal Code (LAMC) for discretionary actions administered by the Department of City Planning.

1. APPELLANT BODY/CASE INFORMATION

Appellant Body:

☐ Area Planning Commission ☐ City Planning Commission ☒ City Council ☐ Director of Planning

Regarding Case Number: ENV-2016-3144-MND

Project Address: 1930 W. Wilshire Blvd.

Final Date to Appeal: Nov. 21, 2017

Type of Appeal: ☐ Appeal by Applicant/Owner
 ☒ Appeal by a person, other than the Applicant/Owner, claiming to be aggrieved
 ☐ Appeal from a determination made by the Department of Building and Safety

2. APPELLANT INFORMATION

Appellant's name (print): Luis Cabrales

Company: Inquilinos Unidos

Mailing Address: 1930 Wilshire Blvd Suite 801

City: Los Angeles

State: CA

Zip: 90057

Telephone: 213-385-8112

E-mail: lcabrales@inquilinosunidos.org

- Is the appeal being filed on your behalf or on behalf of another party, organization or company?

☐ Self ☒ Other: Inquilinos Unidos

- Is the appeal being filed to support the original applicant's position?

☐ Yes ☒ No

3. REPRESENTATIVE/AGENT INFORMATION

Representative/Agent name (if applicable): Claudia Medina

Company: Eviction Defense Network

Mailing Address: 1930 Wilshire Blvd Suite 208

City: Los Angeles

State: CA

Zip: 90057

Telephone: 213-385-8112

E-mail: cmedina@edn.la

4. JUSTIFICATION/REASON FOR APPEAL

Is the entire decision, or only parts of it being appealed?

☒ Entire

☐ Part

Are specific conditions of approval being appealed?

☐ Yes

☒ No

If Yes, list the condition number(s) here: _____

Attach a separate sheet providing your reasons for the appeal. Your reason must state:

- The reason for the appeal
- How you are aggrieved by the decision
- Specifically the points at issue
- Why you believe the decision-maker erred or abused their discretion

5. APPLICANT'S AFFIDAVIT

I certify that the statements contained in this application are complete and true:

Appellant Signature: _____

Date: 11/21/2017

6. FILING REQUIREMENTS/ADDITIONAL INFORMATION

- Eight (8) sets of the following documents are required for each appeal filed (1 original and 7 duplicates):
 - Appeal Application (form CP-7769)
 - Justification/Reason for Appeal
 - Copies of Original Determination Letter
- A Filing Fee must be paid at the time of filing the appeal per LAMC Section 19.01 B.
 - Original applicants must provide a copy of the original application receipt(s) (required to calculate their 85% appeal filing fee).
- All appeals require noticing per the applicable LAMC section(s). Original Applicants must provide noticing per the LAMC, pay mailing fees to City Planning's mailing contractor (BTC) and submit a copy of the receipt.
- Appellants filing an appeal from a determination made by the Department of Building and Safety per LAMC 12.26 K are considered Original Applicants and must provide noticing per LAMC 12.26 K.7, pay mailing fees to City Planning's mailing contractor (BTC) and submit a copy of receipt.
- A Certified Neighborhood Council (CNC) or a person identified as a member of a CNC or as representing the CNC may not file an appeal on behalf of the Neighborhood Council; persons affiliated with a CNC may only file as an individual on behalf of self.
- Appeals of Density Bonus cases can only be filed by adjacent owners or tenants (must have documentation).
- Appeals to the City Council from a determination on a Tentative Tract (TT or VTT) by the Area or City Planning Commission must be filed within 10 days of the date of the written determination of said Commission.
- A CEQA document can only be appealed if a non-elected decision-making body (ZA, APC, CPC, etc.) makes a determination for a project that is not further appealable. [CA Public Resources Code ' 21151 (c)].

This Section for City Planning Staff Use Only		
Base Fee: <u>\$89</u>	Reviewed & Accepted by (DSC Planner): <u>Norali Martinez</u>	Date: <u>11/21/17</u>
Receipt No: <u>0104818093</u>	Deemed Complete by (Project Planner):	Date:
<input checked="" type="checkbox"/> Determination authority notified		<input type="checkbox"/> Original receipt and BTC receipt (if original applicant)

Office: Downtown
Applicant Copy
Application Invoice No: 41661

City of Los Angeles
Department of City Planning



LA Department of Building and Safety
LA ESTE 104121532 11/21/2017 2:46:56 PM

City Planning Request

NOTICE: The staff of the Planning Department will analyze your request and accord your application, regardless of whether or not you obtain the services

This filing fee is required by Chapter 1, Article 9,

PLAN & LAND USE \$106.80
DEV SERV CENTER SURCH-PLANNING \$2.67

Sub Total: \$109.47

Receipt #: 0104818093

Applicant: INQUILINOS UNIDOS - CABRERA, LUIS (B:213-3858112)
Representative: EVICTION DEFENSE NETWORK - MEDINA, CLAUDIA (B:213-385
Project Address: 1900 W WILSHIRE BLVD, 90057

NOTES: Fee for Appeal of MND by a person, other than the Applicant/Owner, claiming to be aggrieved.

ENV-2016-3144-MND			
Item	Fee	%	Charged Fee
Other with Surcharges (per Ordinance No. 182,106) *	\$89.00	100%	\$89.00
Case Total			\$89.00

Item	Charged Fee
*Fees Subject to Surcharges	\$89.00
Fees Not Subject to Surcharges	\$0.00
Plan & Land Use Fees Total	\$89.00
Expediting Fee	\$0.00
Development Services Center Surcharge (3%)	\$2.67
City Planning Systems Development Surcharge (6%)	\$5.34
Operating Surcharge (7%)	\$6.23
General Plan Maintenance Surcharge (7%)	\$6.23
Grand Total	\$109.47
Total Invoice	\$109.47
Total Overpayment Amount	\$0.00
Total Paid (this amount must equal the sum of all checks)	\$109.47

LA Department of Building and Safety
LA ESTE 104121532 11/21/2017 2:46:56 PM

PLAN & LAND USE \$106.80
DEV SERV CENTER SURCH-PLANNING \$2.67

Sub Total: \$109.47

Receipt #: 0104818093

Council District: 1
Plan Area: Westlake
Processed by MARTINEZ MAZA, NORALI on 11/21/2017

Signature: _____

11/21/2017

Los Angeles City Council
200 N. Spring Street
Los Angeles, CA 90012

Re: The Lake on Wilshire, Project Location 1930 W. Wilshire Blvd.
Case Nos. CPC-2016-3142-GPA-DB-CUB-SPR and CPC-2016-3143-DA,
CEQA No. ENV-2016-3144-MND

Dear Los Angeles City Council:

We write on behalf of Inquilinos Unidos (United Tenants), a nonprofit organization that outreaches and works to identify, train, and organize tenant leaders to build sustainable groups in buildings with severe habitability violations. Inquilinos Unidos is part of Coalition for an Equitable Westlake-MacArthur Park (**Coalition**), an unincorporated association of community service providers and community residents, that object to the Lake on Wilshire Project (**Project**), the entitlements requested for the Project, and the CEQA Mitigated Negative Declaration that has been issued for the Project (the **MND**). The Coalition consist of organizations that provide services to the immediate community, and neighborhood residents that live within a six block radius of the project and will be aggrieved by the decision to approve the Project. Inquilinos Unidos, is a tenant of the Wilshire Medical Building, at 1930 W. Wilshire Boulevard. **Through this application, we are appealing the CEQA determinations.** Inquilinos Unidos objects to the Project and approval of the associated entitlements, MND, and MMP for the reasons set forth below.

The Project Site contains a 115,560 square foot medical office building that is a designated historic resource, which houses medical offices and other office space (the **Wilshire Medical Building**), as well as surface parking. The Project proposes to convert the existing building to a hotel and to construct a 41-story apartment tower with up to 478 units, an approximately 70,000 square foot “learning, cultural and performing arts center,” and a 12-story parking structure. The Planning Commission has approved a General Plan amendment, a Conditional Use permit for the sale and consumption of alcoholic beverages, a Density Bonus, a Site Plan Review, and a Development Agreement for the Project (the **Entitlements**). In order to grant these entitlements, the City will need to adopt the MND and a Mitigation Monitoring Program (**MMP**).

The Coalition objects to the Project and approval of the associated entitlements, MND, and MMP for the reasons set forth below. The Coalition consist of organizations that provide services to the immediate community, and neighborhood residents, such as the applicant, that live within a six block radius of the project who will be aggrieved by the decision to approve the Project.

An Environmental Impact Report (EIR) should have been completed for the Project. As discussed below, the MND omits important environmental analysis that should be in front of the City's decision-makers before they approve the Project. The MND's analysis of several important and potentially significant environmental effects is so inadequate that a court is likely to order the City to set it aside.

Under the California Environmental Quality Act, Public Resources Code §§ 21000-21189.3 (CEQA), a public agency is required to prepare Environmental Impact Report (EIR) instead of an MND when there is a fair argument that the project at issue *may* have one or more significant adverse environmental effects after mitigation. As discussed below, the Project has several such potentially significant environmental impacts, necessitating an EIR to be prepared.

Air Quality

Failure to Justify Thresholds of Significance

The MND states that the CEQA Guidelines, section 15064.7, provides that the significance criteria established by the applicable air quality management district may be relied upon to make determinations of significance and that the project's air quality impacts are evaluated according to thresholds developed by the SCAQMD (MND p. 3-21). Guidelines section 15064.7 allows a lead agency to consider thresholds of significance recommended by other public agencies but only if the decision of the lead agency to adopt those thresholds is supported by substantial evidence. The MND does not provide substantial evidence for adoption of SCAQMD thresholds because the MND fails to explain or discuss how it arrived at the specific thresholds on which the City relied, and fails to justify why adoption of those thresholds is appropriate for the Project. The City thus failed to meet its obligation to undertake a fact-based investigation of the Project's potential impacts on air quality, and to explain the basis for its determination that those impacts are mitigable to a level of insignificance.

Failure to Properly Analyze Cumulative Impacts

The MND fails to properly analyze cumulative effects on air quality as a result of the project and other proposed developments near the Project Site. Under CEQA, cumulative impacts of a particular adverse environmental effect may be significant even if the direct effects of that type are not significant. An effect will be cumulatively significant if the effect, combined with the same effect from other projects in the area, will be significant, and the proposed project makes a "cumulatively considerable" contribution to the overall effect.

The MND appears to assert that during the construction phase, localized concentrations of CO, PM_{2.5}, PM₁₀, and NO₂ would not exceed ambient air quality standards because none of the proposed projects included in the analysis would individually exceed localized significance thresholds (LSTs)—or if any did, that project would mitigate any significant localized emissions (MND p. 3-31). But this misunderstands the essence of a cumulative analysis, which requires analysis of the combined effects of multiple projects' impacts that may individually fall below a threshold of significance. To say that each project's impacts falls below a threshold does not address the question for analysis with respect to cumulative effects.

The same flaw inheres in the analysis of cumulative operational impacts. It is inadequate to state that the Project's air quality impacts would not exceed the operational thresholds and therefore its cumulative impacts would be less than significant (MND p. 3-32). The MND conclusorily asserts that existing land uses in the area do not produce substantial emissions of localized nonattainment pollutants, but fails to provide any evidence or analysis to support that conclusion.

Failure to Properly Analyze Impacts on Sensitive Receptors

The MND's analysis of air quality impacts on sensitive receptors is inadequate to show that significant impacts will not occur (MND pp. 3-32–3-34). The MND states that sensitive receptors include schools, yet it fails to identify or discuss potential effects on schools near the Project site. Elsewhere in the MND, five schools are listed within 1,300 feet of the site (two of those approximately 200 feet from the site) (MND p. 3-104). In omitting those schools from the discussion of sensitive receptors, the MND fails to adequately analyze related air quality impacts. Further, if the schools were deemed to be too distant from the site for such an analysis to be necessary, the MND failed to explain that determination, as required.

Trees

Failure to Adequately Analyze Environmental Harm from Removing Trees

The MND fails to adequately analyze the environmental impacts of cutting down 79 trees on the Project Site. Because of that failure, the record does not demonstrate that significant impacts will not occur as a result of the loss of trees.

First, the MND fails to quantify and discuss the canopy to be lost, and the various potential effects of that loss. Trees have aesthetic value, and aesthetic impacts are environmental impacts under CEQA.

Also, trees help combat climate change by absorbing carbon dioxide. As explained in TreePeople's document titled "Top 22 Benefits of Trees," attached to this letter as Exhibit 1, trees absorb CO₂, removing and storing the carbon while releasing the oxygen back into the air. According to the document "Tree Facts" from North California State University's College of Agricultural & Life Sciences, attached as Exhibit 2, a tree can absorb as much as 48 pounds of CO₂ per year and can sequester 1 ton of CO₂ by the time it reaches 40 years old. There is therefore a fair argument that removing 79 trees will have a significant global-warming effect.

Trees also conserve energy. They can reduce the energy demand for cooling buildings. "Three trees placed strategically around a single-family home can cut summer air conditioning needs by up to 50 percent." (Exhibit 1.) Eliminating trees at the Project Site thus also has indirect global-warming effects by increasing energy needs.

As noted in Exhibit 1, trees have several other environmental effects, including providing oxygen, cooling the surrounding landscape, reducing water evaporation, reducing stormwater runoff, and preventing soil erosion.

For these reasons, there is a fair argument that removal of 79 trees from the Project Site will have significant environmental effects, but the MND fails to analyze those potential effects.

Inadequate Mitigation of Tree Loss

There is a lack of substantial evidence that mitigation measure MM-4-1 will mitigate the loss of trees to insignificance. The mitigation measure provides for replacement of trees with trunks whose diameter is 8 inches or more at 54 inches above the ground (MND p. 3-37). The measure, however, relies on a future plot plan to identify the sizes of trees, and the MND thus fails to identify how many trees will be replaced. In the absence of that information, it is impossible to judge how effective the mitigation measure will be in mitigating the loss of trees and the associated adverse effects, as discussed above. Although Appendix D provides “caliper” measurements for the existing trees, that information is suspect, as it does not provide a measurement for each tree, instead listing several trees in single entries, as if all have the exact same measurements.

Further, mitigation measure MM-4-1 represents ineffective mitigation. The measure provides for the replacement of mature trees at a 1:1 ratio with trees as small as a 24-inch-box-tree. Such a replacement plan cannot mitigate fully for the environmental effects of reduced tree canopy. Moreover, the mitigation measure contains no measures to ensure survival of the replacement trees.

Cultural Resources

Failure to Adequately Analyze Impacts to Historical Resources

The MND section on Cultural Resources concludes the Project will not have a significant impact on the significance of a historical resource. The Wilshire Medical Building is indisputably a historical resource, and the MND recognizes that if the character-defining features of the building are not retained, there would result a potential adverse effect to the significance of the building. Yet the MND fails to explain how the building’s interior character-defining features will be retained. Multiple such features are identified in the MND, including the lobby with its marble and plaster features, the bronze-framed building director and bronze U.S. Mail letter box and chute, the elevator lobby with original decorative incised bronze doors, the fire hose cabinet, stairwell with marble, metal, and wood features, and so forth. The MND states only that the Project would rehabilitate and adaptively reuse the Wilshire Medical Building for use as a hotel, rehabilitating the lobby and ground-floor retail spaces as a hotel lobby, bar, and restaurant, rehabilitating the second floor as a business center, and rehabilitating the remaining floors with guestrooms (MND p. 3-42). There is no showing that this renovation can be accomplished without destroying many of the character-defining features. In fact, there is no discussion whatsoever of Project plans to avoid such destruction.

While recognizing that mitigation is required to ensure the retention of essential character-defining features, the MND fails to provide any adequate mitigation. The mitigation measures for historic resources fall far short of what CEQA requires in this area. Mitigation measure MM-5-1 provides only that the applicant will engage a qualified historic preservation

consultant to oversee the design development (MND p. 3-46). This is vague and deferred mitigation and improperly deferred analysis that should have been included in the MND, because in its absence, there is no substantial evidence to support the conclusion that impacts to historical resources will be less than significant. There is therefore a fair argument that the Project will have a significant effect on this historical resource even with the planned mitigation.

Additionally, the MND concludes without substantial evidence that the addition of the cultural center, parking structure, and residential tower will not significantly impact the integrity or significance of the Wilshire Medical Building. The MND asserts that the east and south facing facades are secondary, and appears to suggest that other buildings blocking views of those facades would thus not interfere with the building's importance as a historic resource. But there is no analysis to support that inference. The MND goes on to assert that the majority of the east and south facades would be largely visible from most vantage points. In the complete absence of analysis to explain how that could be, despite the fact that buildings will be added to the south, to the east, and to the southeast of the Wilshire Medical Building, the record does not demonstrate that significant impacts to this cultural resource will not occur. Moreover, the MND identifies the rear entrance of the building as a primary character-defining feature of the historic building, but fails to explain how the Project will preserve the importance of that entrance when a parking structure will obstruct views of it. Additionally, the architectural styles of the new buildings proposed on the Project Site, and in particular that of the cultural center, are incompatible with the style of the Wilshire Medical Building, so that their construction adjacent to the historic building will cause a significant impact to the integrity and significance of the building as a historic resource.

Failure to Adequately Analyze and Mitigate Impacts to Paleontological Resources

According to the MND, the Natural History Museum stated that excavations of more than a few feet may uncover significant vertebrate fossils. Disturbing such paleontological resources would be a potentially significant adverse effect. The Natural History Museum recommended that sediment samples from finer-grained deposits be collected and processed to determine the small fossil potential in the proposed project area. The MND states that compliance with regulatory compliance measure RCM-5-2 would render any impacts to paleontological resources less than significance (MND p. 3-47). Yet, that regulatory compliance measure, the only measure to address such impacts, does not provide for any capture and processing of excavated material, so potential impacts to small fossils are unaddressed in the MND, despite Project plans that include excavation deep enough for two stories of underground parking. Because of this omission, there is a fair argument that there will be unmitigated significant effects to paleontological resources.

Greenhouse Gas Emissions

The MND's analysis of greenhouse gas (GHG) emissions compares the Project with an estimated No Action Taken (NAT) Scenario, in which GHG emissions are estimated in the absence of any GHG reduction measures. The MND states that the analysis uses the 2014 Revised AB 32 Scoping Plan's statewide goals as an approach to evaluate the Project's

emissions, and that the reductions in CO₂e emissions for the Project exceed the State's AB 32 Scoping Plan goal, so the Project would exceed its contribution to statewide climate change obligations (MND p. 3-79).

The NAT scenario used in the MND's GHG analysis is a totally artificial construct: it is a hypothetical version of the Project not based in any reality. It ignores the actual situation on the ground, and the applicable law and regulations. For example, the MND states that the NAT scenario would not consider site-specific conditions, such as the project's mixed-use nature and proximity to public transportation. (MND p. 3-77.) Why should that artificial, contra-factual situation be used as a point of comparison in the GHG analysis? The applicant could as well compare the proposed project with a hypothetical cattle feed lot on the site and argue "look at all the benefits we're getting by having a nice mixed-use project on the site instead of a cattle feed lot."

The MND's approach to GHG analysis was rejected by the California Supreme Court in *Center for Biological Diversity v California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225-226, in which the Court found the record contained no substantial evidence that a project-level reduction of GHGs in comparison with a business-as-usual scenario was consistent with achieving AB 32's statewide goal of reducing GHGs 29 percent below business as usual.

Because the MND relies on analysis that the Supreme Court has invalidated and was therefore an improper analysis, there is a fair argument that the Project, with estimated annual GHG emissions of 9,637 CO₂e, may have significant GHG impacts. This analysis is supported by the SCAQMD's threshold of 3,000 MTCO₂e for mixed-use projects such as this one. (MND p. 3-68.) This project will exceed the SCAQMD threshold by greater than a factor of three. The "net emissions" of 4,911 (MND p. 3-78, presumably the difference between the Project's projected emissions and the current baseline of 4,726 MTCO₂e, though this is not stated in the MND) also exceed the SCAQMD threshold by 64%. So there is therefore a fair argument that the Project's GHG emissions will be significant, even after the paltry mitigation proposed in the MND. CEQA requires an EIR to be prepared.

Hazardous Materials

Failure to Adequately Analyze Impacts from Petroleum Hydrocarbons

In the past, the Project Site contained a gas station and auto repair facility, which represent a recognized environmental condition, according to the MND. The MND explains that past site assessments have identified petroleum hydrocarbons in the soil, including benzene, toluene, ethylbenzene, xylenes, and MTBE. As explained on the EPA's issue website for vapor intrusion, attached as Exhibit 3, the process of vapor intrusion, even at low concentrations, can lead to the accumulation of volatile chemicals in interior spaces and pose a significant human health risk. The MND, however, fails to evaluate the concentrations of these chemicals found on the Site for their significance and potential toxicity.

Failure to Adequately Analyze or Mitigate Impacts from Other Hazardous Materials

The MND concludes there is a potential for asbestos-containing building materials and lead-based paint at the Project Site, and it acknowledges that exposure to asbestos and lead could be hazardous to the health of demolition workers and area residents and employees. Despite the potential for a significant impact, the MND indicates that no testing was completed for asbestos-containing building materials or lead-based paint (MND p. 3-99). The City thus failed to undertake the required fact-based investigation of the Project's potential effects from these hazardous materials.

The MND relies on regulatory compliance measure RCM-8-1 to support its conclusion that impacts from release of hazardous materials will be less than significant with mitigation (MND p. 3-103). RCM-8-1 does not provide for a method to determine whether asbestos-containing materials are present, and provides only that a lead-based paint survey will be performed to the written satisfaction of the Department of Building and Safety. This measure is insufficient to meet the requirement that the MND evaluate impacts before the MND is adopted and the Project is approved. Because the potential for a significant impact exists and the MND fails to show the regulatory compliance measure would mitigate the impact, there is a fair argument that the Project will have a significant impact on health from asbestos and lead exposure.

The MND also fails to adequately support the conclusion that there would be less than significant impacts with respect to whether the Project may release toxic emissions within one-quarter mile of an existing or proposed school. The MND identifies five schools within that distance from the Project Site (MND p. 3-104). The conclusion that impacts to individuals at those schools would be less than significant relies on the inadequate regulatory compliance measure discussed above. Further, the MND conclusorily states that the schools would be generally shielded from the Project Site by their distances, intervening urban buildings, and construction walls and sheeting. No evidence is presented to support this assertion. It is illogical to assert that the schools' less-than-one-quarter-mile distances from the Site will protect them, when the MND acknowledges that a significant adverse effect may occur if the Project Site is within one-quarter mile of the schools. The assertion that intervening urban buildings will shield the schools is also illogical, given that those buildings do not constitute an impenetrable barrier. As explained in a World Health Organization fact sheet, attached to this letter as Exhibit 4, even low levels of exposure to lead is known to affect children's brain development and to harm other body systems. Particularly given these serious health effects to children from lead exposure, the MND's analysis of Project impacts is inadequate.

Noise

The MND concludes that off-site construction-related noise impacts would be less than significant, but the explanation for that conclusion is insufficient. Hauling of excavated soils would involve an average of 107 haul trips per day via Wilshire Boulevard and Alvarado Street. The MND states that this vehicle activity would only marginally increase ambient noise levels along the haul route (MND p. 3-154), but no substantial evidence is provided to support that assertion. Although according to the MND, a 3 dBA increase in roadway noise requires an approximate doubling of roadway traffic volume assuming the travel speed and *fleet mix* remain

constant, the addition of haul trucks to the roadways will change the fleet mix. For that reason, the MND's statement that the addition of haul trucks would not nearly double the traffic volumes on local roadways is irrelevant. According to the Traffic Noise Basics Fact Sheet attached as Exhibit 5 to this letter, data from the California Department of Transportation shows that while heavy traffic is 60 dBA, a diesel truck is 85 dBA. Based on that information, it is likely that the added roadway noise from the haul trucks will be greater than 5 dBA, and there is a fair argument that the Project's construction-related activities may have a significant effect on off-site noise impacts.

Conclusion

As discussed above, there is at least a fair argument for several types of environmental impacts that those impacts may be significant, even with the mitigation required by the City. An EIR should therefore be prepared.

Even if an EIR were not mandated, there are many potentially significant environmental effects that are not adequately analyzed, and the analysis of many potentially significant environmental effects is not supported by substantial evidence in the record. This lack of proper environmental analysis is grounds for a court to set aside the MND and order the City to prepare an environmental document that complies with CEQA. The City should do that now rather than approving the current MND.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Luis Cabrales', written over a horizontal line.

Luis Cabrales

Executive Director, Inquilinos Unidos



Top 22 Benefits of Trees

Here are 22 of the best reasons to plant and care for trees or defend a tree's standing:

Trees combat climate change

Excess carbon dioxide (CO₂) caused by many factors is a building up in our atmosphere and contributing to climate change. Trees absorb CO₂, removing and storing the carbon while releasing the oxygen back into the air. In one year, an acre of mature trees absorbs the amount of CO₂ produced when you drive your car 26,000 miles.

Trees clean the air

Trees absorb odors and pollutant gases (nitrogen oxides, ammonia, sulfur dioxide and ozone) and filter particulates out of the air by trapping them on their leaves and bark.

Trees provide oxygen

In one year an acre of mature trees can provide enough oxygen for 18 people.

Trees cool the streets and the city

Average temperatures in Los Angeles have risen 6°F in the last 50 years as tree coverage has declined and the number of heat-absorbing roads and buildings has increased. Trees cool the city by up to 10°F, by shading our homes and streets, breaking up urban "heat islands" and releasing water vapor into the air through their leaves.

Trees conserve energy

Three trees placed strategically around a single-family home can cut summer air conditioning needs by up to 50 percent. By reducing the energy demand for cooling our houses, we reduce carbon dioxide and other pollution emissions from power plants.

Trees save water

Shade from trees slows water evaporation from thirsty lawns. Most newly planted trees need only fifteen gallons of water a week. As trees transpire, they increase atmospheric moisture.

Trees help prevent water pollution

Trees reduce runoff by breaking rainfall thus allowing the water to flow down the trunk and into the earth below the tree. This prevents stormwater from carrying pollutants to the ocean. When mulched, trees act like a sponge that filters this water naturally and uses it to recharge groundwater supplies.

Trees help prevent soil erosion

On hillsides or stream slopes, trees slow runoff and hold soil in place.

Trees shield children from ultra-violet rays

Skin cancer is the most common form of cancer in the United States. Trees reduce UV-B exposure by about 50 percent, thus providing protection to children on school campuses and playgrounds - where children spend hours outdoors.

Trees provide food

An apple tree can yield up to 15-20 bushels of fruit per year and can be planted on the tiniest urban lot. Aside from fruit for humans, trees provide food for birds and wildlife.

Trees heal

Studies have shown that patients with views of trees out their windows heal faster and with less complications. Children with ADHD show fewer symptoms when they have access to nature. Exposure to trees and nature aids concentration by reducing mental fatigue.

Trees reduce violence

Neighborhoods and homes that are barren have shown to have a greater incidence of violence in and out of the home than their greener counterparts. Trees and landscaping help to reduce the level of fear.

Trees mark the seasons

Is it winter, spring, summer or fall? Look at the trees.

Trees create economic opportunities

Fruit harvested from community orchards can be sold, thus providing income. Small business opportunities in green waste management and landscaping arise when cities value mulching and its water-saving qualities. Vocational training for youth interested in green jobs is also a great way to develop economic opportunities from trees.

Trees are teachers and playmates

Whether as houses for children or creative and spiritual inspiration for adults, trees have provided the space for human retreat throughout the ages.

Trees bring diverse groups of people together

Tree plantings provide an opportunity for community involvement and empowerment that improves the quality of life in our neighborhoods. All cultures, ages, and genders have an important role to play at a tree planting or tree care event.

Trees add unity

Trees as landmarks can give a neighborhood a new identity and encourage civic pride.

Trees provide a canopy and habitat for wildlife

Sycamore and oak are among the many urban species that provide excellent urban homes for birds, bees, possums and squirrels.

Trees block things

Trees can mask concrete walls or parking lots, and unsightly views. They muffle sound from nearby streets and freeways, and create an eye-soothing canopy of green. Trees absorb dust and wind and reduce glare.

Trees provide wood

In suburban and rural areas, trees can be selectively harvested for fuel and craft wood.

Trees increase property values

The beauty of a well-planted property and its surrounding street and neighborhood can raise property values by as much as 15 percent.

Trees increase business traffic

Studies show that the more trees and landscaping a business district has, the more business will flow in. A tree-lined street will also slow traffic – enough to allow the drivers to look at the store fronts instead of whizzing by.

Resources

Download Resources (/resources)
Top 22 Benefits of Trees (/resources/tree-benefits)
Rain Barrel and Tank Information (/rainbarrels)
Research and Publications (/resources/publications)
Tree Pest and Disease Alerts (/resources/tree-alerts)

From our Blog

NC STATE UNIVERSITY**College of Agriculture & Life Sciences**

Department of Horticultural Science



Tree Facts

General Information

Trees help our soil remain healthy by reducing soil erosion and by creating a soil climate suitable for microorganism to grow.

There are over 23,000 different kinds of trees in the world.

A healthy tree can increase your property value by as much as 27 percent while trees with dead branches, hollow cavities and other problems can decrease your property value.

Evergreen trees are green year round because they do not lose all of their leaves in one season. Most will however lose some of their oldest leaves just before they produce new leaves in the spring. Some will lose part of their leaves in the fall.

A tree can absorb as much as 48 pounds of carbon dioxide per year and can sequester 1 ton of carbon dioxide by the time it reaches 40 years old.

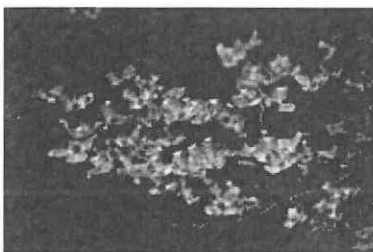
Tree leaves are composed of many colored pigments -- green chlorophyll hides them during the spring and summer growing seasons. Shorter days and cool temperatures in the fall cause the chlorophyll to break down and the other pigments to be seen.

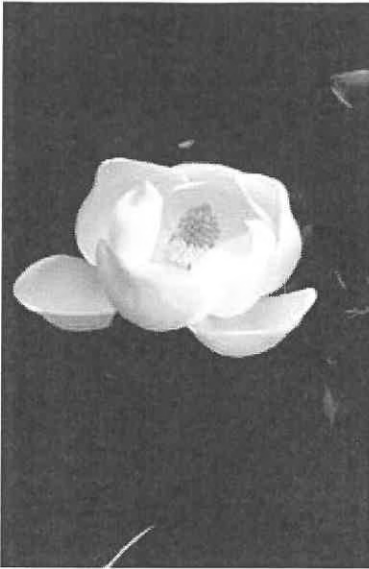
Every state has an official State Tree. We do not have a national tree, however, there is a campaign to have the oak adopted as our National Tree.

Arbor Day, a day set aside to plant and recognize the importance of trees, is not a national holiday. In fact the day observed varies from state to state.

Tree wood is a highly organized arrangement of living, dying, and dead cells.

The beginning and growth of tall woody trees in forests may have played a key role in the extinction of the dinosaurs.





Hundreds of food products (fruit, coffee, nuts, etc.) and food additives (for ice cream, chewing gum, etc.) come from trees.

One large tree can lift up to 100 gallons of water out of the ground and discharge it into the air in a day.

One large tree can provide a day's supply of oxygen for up to four people.

Each year, one person uses wood and paper products equivalent to a 100 foot tree 18 inches in diameter.

Over 5,000 products are made from trees.



Trees are included in most religions. Some hold certain trees sacred; other use trees to help teach beliefs. The story goes that Buddha received his enlightenment under the wisdom tree.

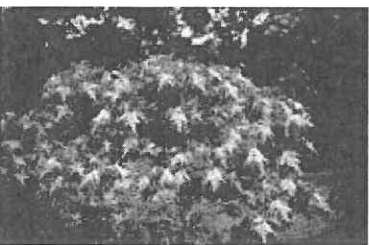
Each year over 600,000 people travel to Macon, Georgia to see 240,000 cherry trees in bloom. The estimated revenue is over \$6.5 million dollars per year.



Age/Size

Trees are the largest living organism on earth:

- Some coastal redwoods are over 360 feet tall
- Some swamp ash trees are almost 300 feet tall
- Giant sequoia trees can weigh over 2000 tons (4 million pounds)
- It can take 10 minutes to walk around the crown of a giant banyon tree in Calcutta.
- Monkey trees can have a crown of almost 200 feet.



Trees are some of the oldest living organism on earth:

- live oaks can live to be over 500 years
- many giant sequoia trees are 2,500 years old
- some bristlecone pines are thought to be over 5000 years old.

Trees grown in city conditions often do not live as long (average 13 years less) as trees grown in their natural wooded environment.

Growth

Trees trap more of the sun's energy than any other group of organisms on earth -- they are in essence



big batteries -- the largest on earth. Only 0.1% of the sun's energy is trapped by organisms -- trees account for 50% of all energy trapped by organism.

Almost 98% (by weight) of a tree is made up of six elements: carbon, hydrogen, oxygen, nitrogen, phosphorus and sulfur.

Tree growth occurs in specialized tissues referred to as meristems. This tissue is found at the tips of leaves and shoots. Growth in diameter occurs at the vascular cambium inside the stem.

If a birdhouse is hung on a tree branch, it does not move up the tree as the tree grows.



Trees need food to grow but you can't buy food for them. They make their own food from sunlight, water, carbon dioxide and nutrients from the soil.

Trees do not grow beyond their ability to support themselves. During periods of stress they shed leaves, flowers, fruit and/or branches.



Trees do not restore and repair wood that is injured and infected -- instead they compartmentalize off the damaged tissue. New cells are not produced to replace the damaged cells.

A hollow in a tree is never greater than the diameter of the tree at the time it was injured. It should not spread into the new growth that occurs after the tree was injured.

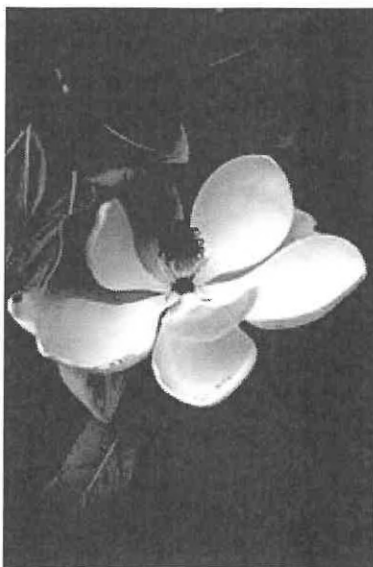
A tree branch is not actually attached to the rest of the tree. It is held in place by a series of interlocking "collars". Collars overlap and mesh to form a tight woven pattern of tissue.



During periods of increased or decreased temperature, cracks may develop in the tree trunk -- referred to as frost cracks and sun cracks. Both can lead to decay.

Each year trees produce an increment of new growth that covers growth from the previous year.

The age of a tree can be determined by the number of growth rings. The size of the growth ring is determined in part by environmental conditions - temperature, water availability.



Tree trunk cells produced in the spring are larger, have thinner walls and are lighter in color than cells produced in the summer.

Bark is the protective covering of a tree. The outer bark is composed of dead cells. The bark will often split as the trunk diameter increases.

Different parts of the tree grow at different times of the year. A typical pattern is for most of the foliage growth to occur in the spring, followed by trunk growth in the summer and root growth in the fall and winter. Not all trees follow the same pattern.



Roots

Most trees do not have a tap root.

Tree roots do not grow very deep. Most tree roots are in the top 12 inches of soil.

Tree roots often extend two to three times the width of the tree.



Roots do not have green chlorophyll.

Roots store more starch than the trunk.

Roots do not have a central pith (soft central tissue) while the trunk does.

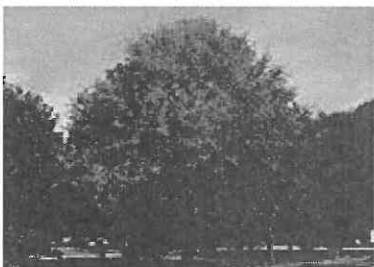
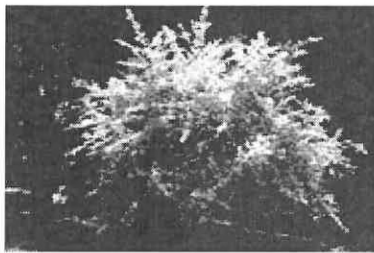
The majority of tree roots are non-woody. These root hairs grow within days of when water, temperature, and nutrients are available to promote growth. These non-woody roots only live for a few weeks.

Non-woody tree roots can grow almost any time the soil is not frozen.

Flowers, Seeds

Almost all trees produce flowers -- some are very showy. Trees that depend on the wind for pollination have non-showy flowers. Often their flowers are muted shades of green or yellowish green.

Trees can be classified as gymnosperms or angiosperms. Gymnosperms produce their seeds on the surface or tips of an appendage such as a pine cone. Angiosperms produce their seeds inside a fruit such as an acorn.



Most trees are grown from seeds -- this leads to variability in the age at which they flower, the amount of flowers produced and the intensity of fall color. Ideally, trees you plant would be grown from seeds collected in a similar climate. Seeds collected in areas with significantly different temperatures will have a different cold and heat tolerance.

Most tree seeds require two growing seasons to germinate. Some tree species require a period of cold weather and others will not germinate for several years.

Cultural Practices

Topping trees is a costly, money-wasting mistreatment of trees.

Tree wound paints and dressings do not help the tree --- some actually speed decay.

There is no conclusive evidence that tree wraps help prevent heat or cold injury.

Inserting screws, nails or injecting fertilizer into a tree trunk can cause decay and death.

A newly transplanted small tree will often outgrow a larger newly transplanted tree.

Filling a tree cavity is not a very useful practice. If done incorrectly it can lead to further decay.

Non-staked transplanted trees are usually stronger than trees that have been staked.

When pruning, do not leave stubs or cut flush with the trunk. Both can prevent the tree from healing naturally and can increase decay.

Callus and woundwood forms around tree cuts. Neither indicate the tree's ability to protect itself against decay. The decay must be compartmentalized off inside the tree.

The best time to fertilize a tree is late fall. The next best time is very early spring.

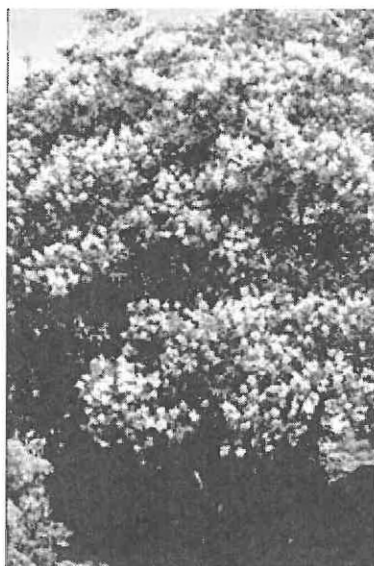
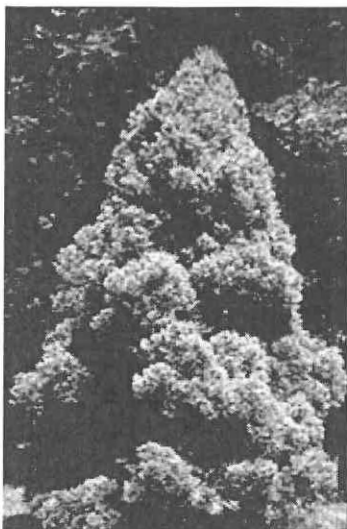
Newly transplanted trees should not be fertilized for a year.

Winter hardiness decreases for several weeks after pruning ---- do not prune in late fall or during severe cold weather.

The best time to transplant most trees is in the fall.
There are some exceptions.

Compiled by: Erv Evans
Web Design by: Mark Dearmon

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U.S. EPA Contaminated Site Cleanup Information (CLU-IN)

CLU-IN | Issues | Vapor Intrusion

For more information on Vapor Intrusion, please contact:

Michael Adam
Technology Integration and Information Branch
PH: (703) 603-9915 | Email: adam.michael@epa.gov

Vapor Intrusion Overview

Vapor intrusion is the general term given to migration of hazardous vapors from any subsurface contaminant source, such as contaminated soil or groundwater or contaminated conduit, into an overlying building or unoccupied structure via any opening or conduit. Vapor-forming chemicals that potentially can provide subsurface sources for vapor intrusion into buildings include, for example, chlorinated hydrocarbons, petroleum hydrocarbons, and other types of both halogenated and non-halogenated volatile organic compounds (VOCs). (See also EPA's Vapor Intrusion Webpage)

Radon Gas

Radon, a colorless, odorless gas, is formed from the decay of radium, a radioactive element that occurs naturally in the bedrock and soil. It may also arise from uranium - or radium-bearing solid wastes in the subsurface. Migration of radon into a dwelling is a specific kind of vapor intrusion, though many of the approaches developed to mitigate the broader issue of vapor intrusion apply to radon as well. Radon poses a threat to the health of building occupants once the gas migrates at high enough levels from soil and rock into homes and the work place. For more information on health risks, as well as detecting and mitigating radon in homes and businesses, visit [EPA's radon page](#).

In extreme cases, the vapors may accumulate in homes and other occupied buildings to levels that may pose near-term safety hazards (e.g., explosion), acute health effects, or odor problems. Typically, however, the chemical concentration levels with vapor intrusion are low, and the odor unnoticeable. Depending on site-specific conditions, the vapors may not be present at concentrations detectable by analytical instruments. In buildings with low concentrations of volatile chemicals, the main concern is whether or not the chemicals pose an unacceptable risk of chronic health effects due to long-term exposure to these low levels. A complicating factor in evaluating the potential risk from chemical exposure due to vapor intrusion is the common presence of some of the same chemicals from sources with the building (e.g., household solvents and paints, gasoline, drycleaned clothing, and cleaning agents) that may pose, separately or in combination with vapor intrusion, a significant human health risk.

Figure 1 illustrates a simple conceptual model of the vapor intrusion pathway the upward movement of vapors from a soil and groundwater source toward and into buildings.

Overview

Policy and Guidance

Site Investigation Tools

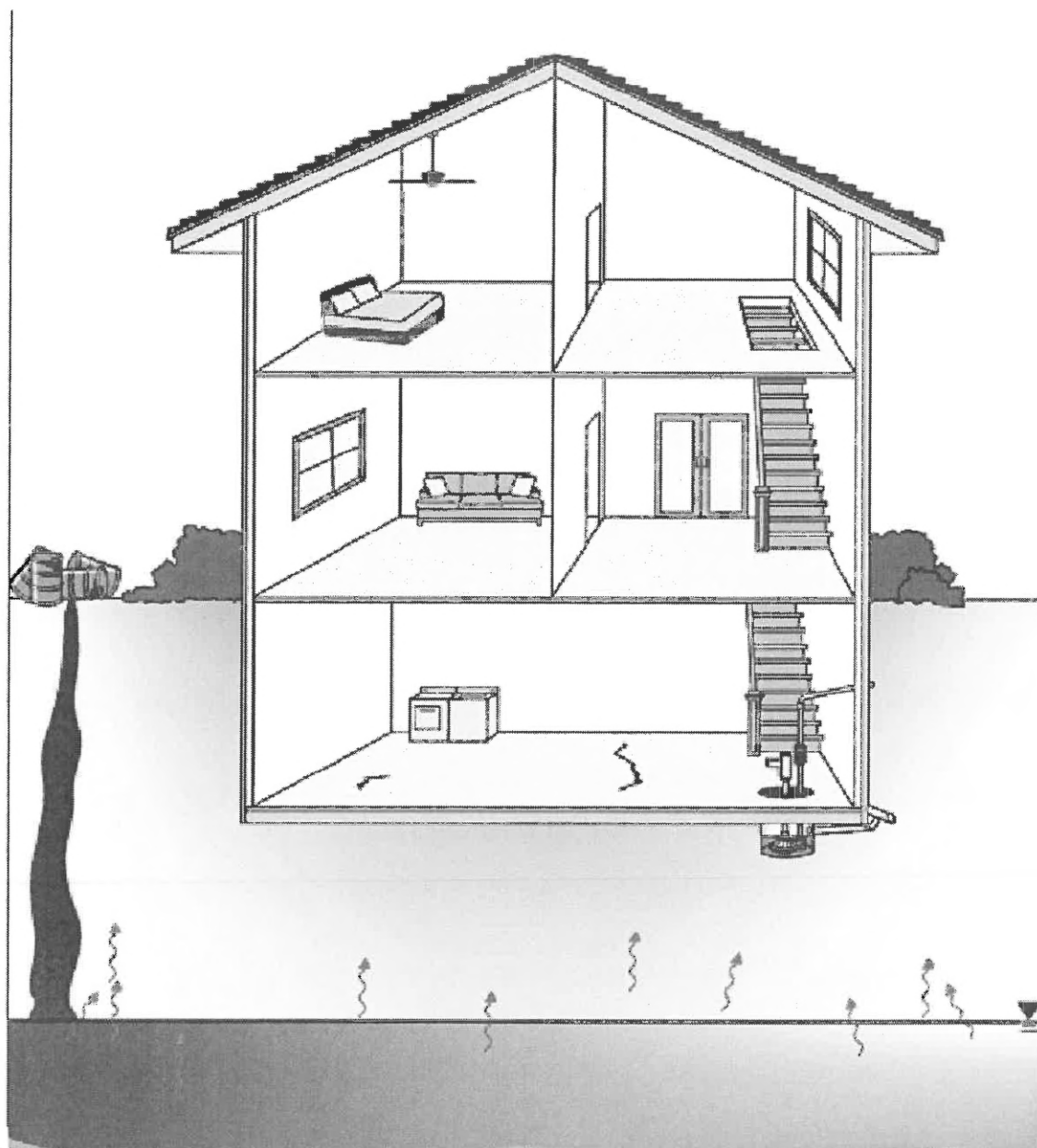
Mitigation

Community Engagement

Conferences and Training

Issue Areas Home

Suggest Resource



Vapor intrusion is a standard consideration during investigations at hazardous waste sites, especially those related to the Resource Conservation and Recovery Act (RCRA); underground storage tanks (USTs); and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund").

Review of Recent Research on Vapor Intrusion

Fred D. Tillman and James Weaver, U.S. EPA National Exposure Research Laboratory
EPA/600/R-05/106, 47 pp, September 2005.

Reviews research in the area of vapor intrusion of organic compounds into residential buildings including challenges in evaluating the subsurface-to-indoor air pathway, fate and transport mechanisms affecting vapors, Federal regulations and proposed guidance, site studies published in scientific literature, and published approaches to modeling.

Petroleum Vapor Intrusion Compendium

U.S. EPA, Office of Underground Storage Tanks website, 2011

U.S. Environmental Protection Agency, Office of Underground Storage Tanks (2011) has prepared this online resource with vapor-intrusion literature lists related to petroleum releases and cleanup.

Petroleum Hydrocarbons And Chlorinated Hydrocarbons Differ In Their Potential For Vapor Intrusion

U.S. Environmental Protection Agency, 13 pp, September 2011.



Discusses and compares petroleum vapor intrusion (PVI) and chlorinated solvent vapor intrusion with respect to processes that influence whether and how vapors can migrate through vadose zone materials into buildings and other confined spaces as well as some implications for addressing PVI.

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http://clu-in.org/issues/default.focus/sec/vapor_intrusion/cat/overview/

Last updated on Friday, September 29, 2017

Issue Areas Disclaimer

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Sponsored by the U.S. EPA Office of Superfund Remediation and Technology Innovation



Lead poisoning and health

Fact sheet

Updated August 2017

Key facts

- Lead is a cumulative toxicant that affects multiple body systems and is particularly harmful to young children.
- Lead in the body is distributed to the brain, liver, kidney and bones. It is stored in the teeth and bones, where it accumulates over time. Human exposure is usually assessed through the measurement of lead in blood.
- Lead in bone is released into blood during pregnancy and becomes a source of exposure to the developing fetus.
- There is no known level of lead exposure that is considered safe.
- Lead exposure is preventable.

Lead is a naturally occurring toxic metal found in the Earth's crust. Its widespread use has resulted in extensive environmental contamination, human exposure and significant public health problems in many parts of the world.

Important sources of environmental contamination include mining, smelting, manufacturing and recycling activities, and, in some countries, the continued use of leaded paint, leaded gasoline, and leaded aviation fuel. More than three quarters of global lead consumption is for the manufacture of lead-acid batteries for motor vehicles. Lead is, however, also used in many other products, for example pigments, paints, solder, stained glass, lead crystal glassware, ammunition, ceramic glazes, jewellery, toys and in some cosmetics and traditional medicines. Drinking water delivered through lead pipes or pipes joined with lead solder may contain lead. Much of the lead in global commerce is now obtained from recycling.

Young children are particularly vulnerable to the toxic effects of lead and can suffer profound and permanent adverse health effects, particularly affecting the development of the brain and nervous system. Lead also causes long-term harm in adults, including increased risk of high blood pressure and kidney damage. Exposure of pregnant women to high levels of lead can cause miscarriage, stillbirth, premature birth and low birth weight, as well as minor malformations.

Sources and routes of exposure

People can become exposed to lead through occupational and environmental sources. This mainly results from:

- inhalation of lead particles generated by burning materials containing lead, for example, during smelting, recycling, stripping leaded paint, and using leaded gasoline or leaded aviation fuel; and
- ingestion of lead-contaminated dust, water (from leaded pipes), and food (from lead-glazed or lead-soldered containers).

The use of some traditional cosmetics and medicines can also result in lead exposure.

Young children are particularly vulnerable because they absorb 4–5 times as much ingested lead as adults from a given source. Moreover, children's innate curiosity and their age-appropriate hand-to-mouth behaviour result in their mouthing and swallowing lead-containing or lead-coated objects, such as contaminated soil or dust and flakes from decaying lead-containing paint. This route of exposure is magnified in children with pica (persistent and compulsive cravings to eat non-food items), who may, for example pick away at, and eat, leaded paint from walls, door frames and furniture. Exposure to lead-contaminated soil and dust resulting from battery recycling and mining has caused mass lead poisoning and multiple deaths in young children in Nigeria, Senegal and other countries.

Once lead enters the body, it is distributed to organs such as the brain, kidneys, liver and bones. The body stores lead in the teeth and bones where it accumulates over time. Lead stored in bone may be remobilized into the blood during pregnancy, thus exposing the fetus.

Undernourished children are more susceptible to lead because their bodies absorb more lead if other nutrients, such as calcium, are lacking. Children at highest risk are the very young (including the developing fetus) and the impoverished.

Health effects of lead poisoning on children

Lead can have serious consequences for the health of children. At high levels of exposure, lead attacks the brain and central nervous system to cause coma, convulsions and even death. Children who survive severe lead poisoning may be left with mental retardation and behavioural disorders. At lower levels of exposure that cause no obvious symptoms, and that previously were considered safe, lead is now known to produce a spectrum of injury across multiple body systems. In particular lead can affect children's brain development resulting in reduced intelligence quotient (IQ), behavioural changes such as reduced attention span and increased antisocial behaviour, and reduced educational attainment. Lead exposure also causes anaemia, hypertension, renal impairment, immunotoxicity and toxicity to the reproductive organs. The neurological and behavioural effects of lead are believed to be irreversible.

There is no known safe blood lead concentration. But it is known that, as lead exposure increases, the range and severity of symptoms and effects also increases. Even blood lead concentrations as low as 5 µg/dL, once thought to be a “safe level”, may be associated with decreased intelligence in children, behavioural difficulties, and learning problems.

Encouragingly, the successful phasing out of leaded gasoline in most countries, together with other lead control measures, has resulted in a significant decline in population-level blood lead concentrations. There are now only 3 countries that continue to use leaded fuel(1).

Burden of disease from lead exposure

The Institute for Health Metrics and Evaluation (IHME) has estimated that, based on 2015 data, lead exposure accounted for 494 550 deaths and loss of 9.3 million disability-adjusted life years (DALYs) due to long-term effects on health. The highest burden is in low- and middle-income countries. IHME also estimated that lead exposure accounted for 12.4% of the global burden of idiopathic developmental intellectual disability, 2.5% of the global burden of ischaemic heart disease and 2.4% of the global burden of stroke (2).

WHO response

WHO has identified lead as 1 of 10 chemicals of major public health concern, needing action by Member States to protect the health of workers, children and women of reproductive age.

WHO has made available through its website a range of information on lead, including information for policy makers, technical guidance and advocacy materials.

WHO is currently developing guidelines on the prevention and management of lead poisoning, which will provide policy-makers, public health authorities and health professionals with evidence-based guidance on the measures that they can take to protect the health of children and adults from lead exposure.

Since leaded paint is a continuing source of exposure in many countries, WHO has joined with United Nations Environment Programme to form the Global Alliance to Eliminate Lead Paint. This is a cooperative initiative to focus and catalyse efforts to achieve international goals to prevent children’s exposure to lead from leaded paints and to minimize occupational exposures to such paint. Its broad objective is to promote a phase-out of the manufacture and sale of paints containing lead and eventually eliminate the risks that such paints pose.

The Global Alliance to Eliminate Lead Paint is an important means of contributing to the implementation of paragraph 57 of the Plan of implementation of the World Summit on Sustainable Development and to

resolution II/4B of the Strategic Approach to International Chemicals Management (SAICM), which both concern the phasing out of lead paint. The elimination of lead paint will contribute to the achievement of Sustainable Development Goal target 3.9: By 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination; and target 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

1. Leaded Petrol Phase-out: Global Status as at March 2017.
Nairobi: United Nations Environment Programme; 2017.

2. Institute for Health Metrics and Evaluation (IHME). GBD Compare.
Seattle, WA: IHME, University of Washington; 2017.

Related links

[International lead poisoning
prevention week of action](#)

[Global Alliance to Eliminate Lead
Paint](#)

[Ten chemicals of major public
health concern](#)

[International Programme on
Chemical Safety](#)

[Public health, environmental and
social determinants of health
\(PHE\)](#)



Express Lanes

Building Choices for South County

Traffic Noise Basics Fact Sheet

July 2015

What Creates Traffic Noise?

Traffic noise is created by vehicle exhaust systems, engines, and by contact of tires with the road during travel. Of these, tire contact with the road accounts for 75 to 90 percent of the overall traffic noise. It is also the only one that Caltrans can partly control or affect along the Interstate 805 (I-805) South corridor.

Other factors that may increase traffic noise are heavier truck volumes, higher speeds, and large trucks. In addition, steep grades or faulty vehicle equipment can cause strain on vehicle engines resulting in an increase in traffic noise.

How Noisy is Traffic?

Traffic noise levels are dependent on a number of factors, including the number of traffic lanes, traffic volume and speed, and topography. People generally can perceive a noise level change that is three decibels (dB), the unit used to measure the intensity of a sound, or greater.

To help associate traffic noise with other sounds people experience, Figure 1 shows the typical A-weighted decibel levels (dBA), measuring the relative loudness of sound as perceived by the human ear, for traffic noise and other common outdoor and indoor activities.

Common Outdoor Activities	dBA	Common Indoor Activities
Jet Engine, 300m (100ft)	110	Rock Band
Gas Lawn Mower, 1m (3ft)	100	
Diesel Truck, 15m (50ft) at 80km/hr (50 mph)	90	Food Blender, 1m (3ft)
Noisy Urban Area, Daytime	80	Garbage Disposal, 1m (3ft)
Gas Lawn Mower, 30m (100ft)	70	Vacuum Cleaner, 3m (10ft)
Commercial Area	60	Normal Speech, 1m (3ft)
Heavy Traffic, 90m (300ft)	50	Large Business Office
Quiet Urban Daytime	40	Dishwasher Next Room
Quiet Urban Nighttime	30	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	20	Library
Quiet Rural Nighttime	10	Bedroom at Night, Concert Hall (Background)
	0	Broadcast/Recording Studio
Lowest Threshold of Human Hearing		Lowest Threshold of Human Hearing

Figure 1

Source: Caltrans, District 11

When is Traffic the Most Noisy?

Traffic noise is often loudest during free-flowing or non-stop traffic, just before or just after peak travel periods. During peak travel periods, noise levels are generally lower due to congestion, which lowers traffic speeds and reduces other contributing factors.

Can Environmental Factors Change Traffic?

Yes, environmental conditions can have a profound effect on noise levels between the source (a highway) and a receiver (a residence or other building) that is within 200 feet of a highway. Wind is the single most important meteorological factor within 500 feet of a highway. Other factors such as air temperature, humidity, and turbulence also have significant effects on noise levels.

The distance between a highway and a residence can also affect noise levels. Doubling the distance between the highway and residence will result in a noise level reduction of three to 4.5 decibels, depending on the surface composition over which the noise is traveling. Figure 2 demonstrates how the distance between the highway and a residence can reduce noise, and by what intervals.

Topography or site geometry also plays an important role in determining a residence or other building's exposure to highway noise. Residences and buildings located farther from a highway may be exposed to higher noise levels, depending on how far above or below the highway the building is located. For this reason, it can be challenging to abate noise for residences up or down hill from a highway.

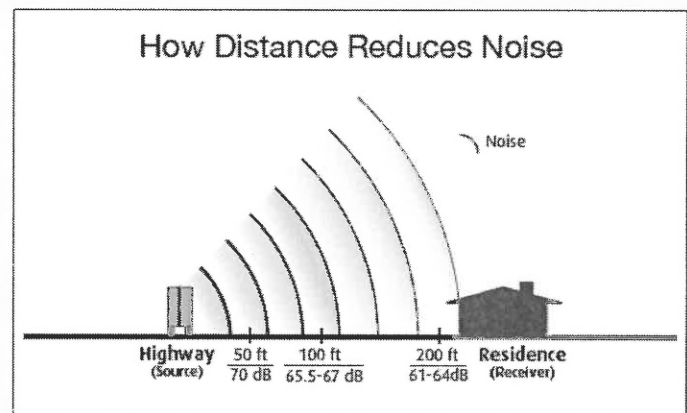


Figure 2

Source: Caltrans, District 11

How Will Traffic Noise be Addressed Along the I-805 South Corridor?

Noise barriers, typically sound walls or earthen berms (barriers created by mounds or banks of earth) or a combination of both, have been analyzed and are being designed to address traffic noise along the I-805 South corridor. Noise barriers are effective in reducing traffic noise if they can effectively break the line of sight between the highway and residences or other buildings and block, absorb, or redirect noise, as Figure 3 demonstrates. However, the hills, mesas, and canyons along I-805 make the use and effectiveness of noise barriers a challenge.

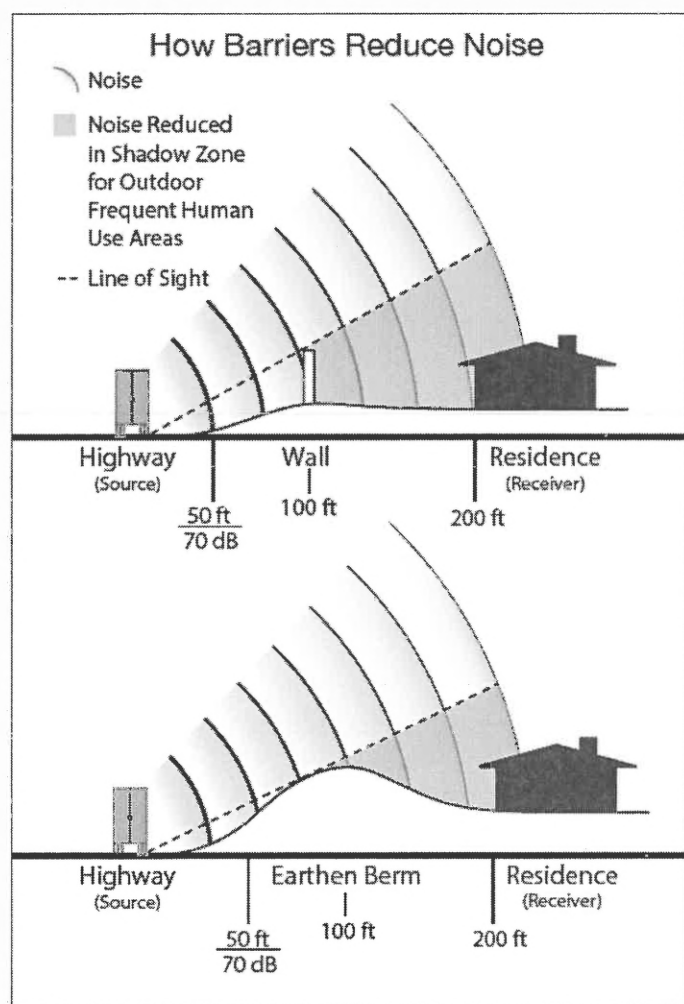


Figure 3

Source: Caltrans, District 11

Can Trees Block Traffic Noise?

Generally, no. In order for trees to effectively reduce traffic noise, they would have to be planted closely together, to block any visual path between the highway and a residence or other building, and the group of planted trees would have to be at least 100 feet thick or wide. In addition, the trees' heights would have to extend at least 16 feet above the line of sight. A single row of trees would not be an effective noise abatement measure, as Figure 4 demonstrates. It is not practical to plant enough trees alongside a highway to use this approach as an abatement strategy.

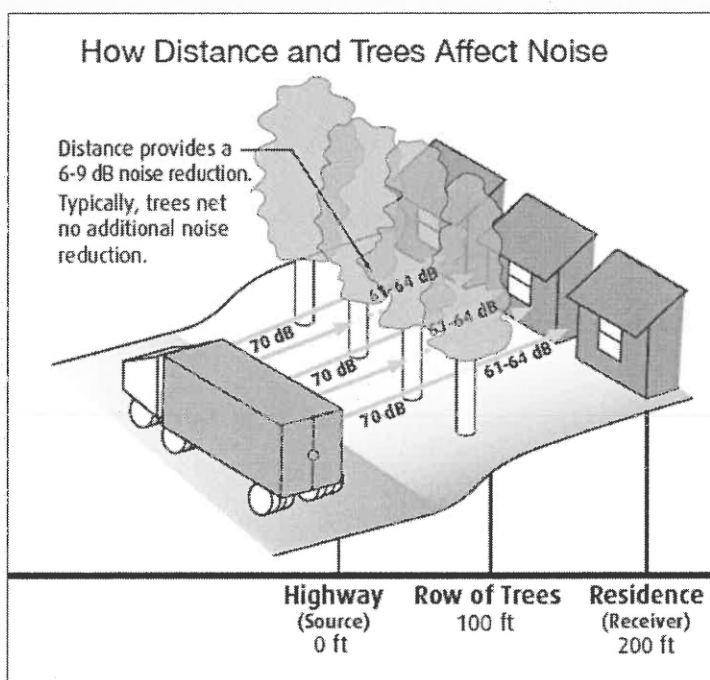


Figure 4

Source: Caltrans, District 11

Get updates on the I-805 South Project by visiting
KeepSanDiegoMoving.com
or **511sd.com**
or call the Construction Hotline at
(888) 941-5005
or email us at
I-805@KeepSanDiegoMoving.com