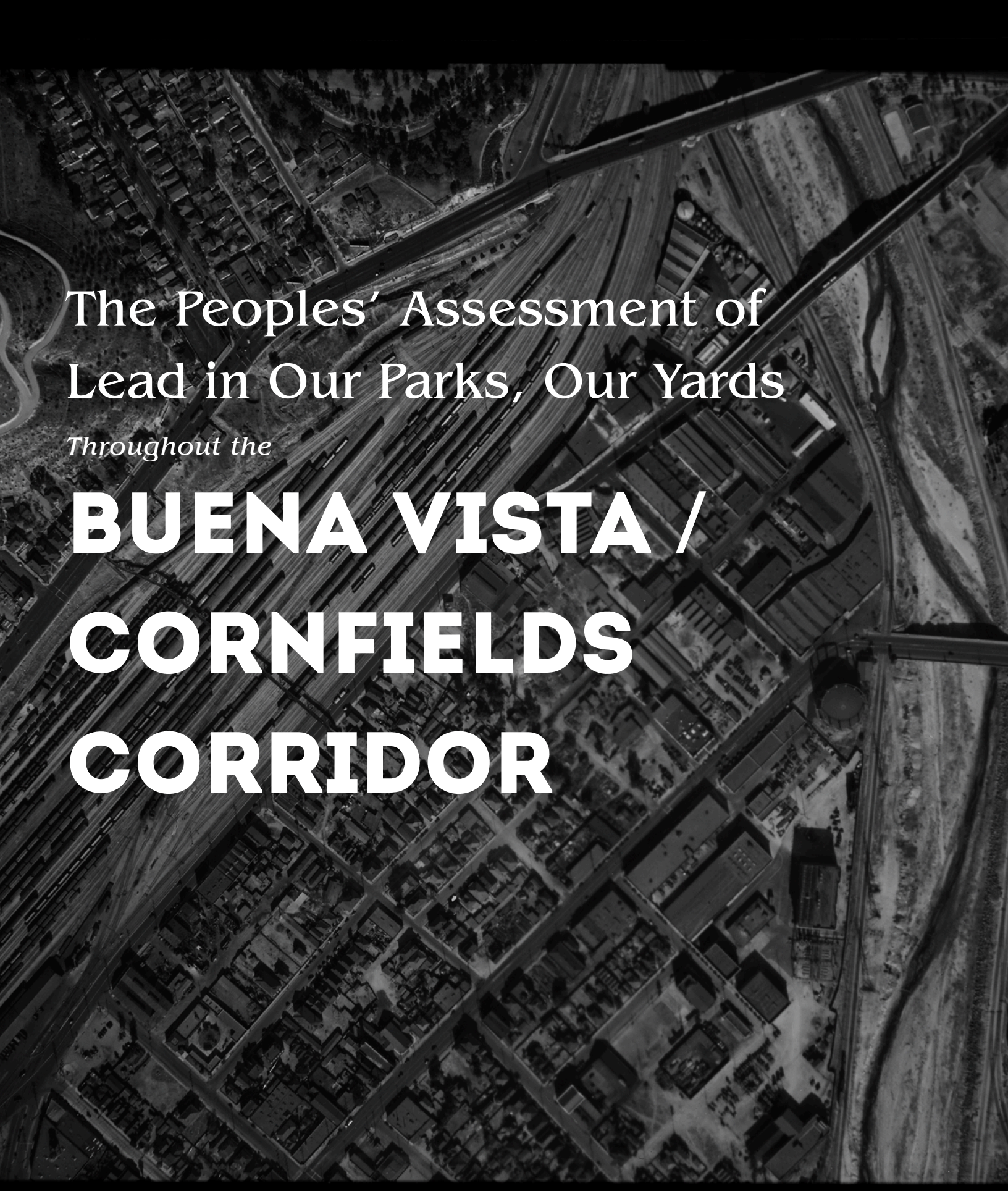


The Peoples' Assessment of Lead in Our Parks, Our Yards

Throughout the

BUENA VISTA / CORNFIELDS CORRIDOR

United Against Buena Vista

October 2026



Who We Are

United Against Buena Vista is a grassroots coalition of residents, community organizations, and advocates from Solano Canyon, Chinatown, Lincoln Heights, and Dogtown united in opposition to the proposed 986-unit Buena Vista development. The coalition challenges a vision of development that threatens to accelerate displacement and gentrification, expose surrounding communities to environmental and construction-related risks, and erode the cultural heritage, environment, and character of some of Los Angeles' oldest neighborhoods.

At its core, the coalition asks a fundamental question: ***Who benefits from development, and who bears its costs***? Through community organizing, public testimony, and collective advocacy, *United Against Buena Vista* demands environmental accountability, meaningful community participation, and a vision of development that honors the rich histories, cultural identities, and interconnected communities of the Buena Vista corridor, while protecting their right to shape its future.



Acknowledgements

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seaca southeast asian community alliance

METABOLIC STUDIO

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1866 IN HISTORIC SOLANO CANYON

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Executive Summary:

What happens when development erases the environmental history of a community?

California's Environmental Quality Act (CEQA) requires state and local agencies to assess and publicly disclose the potential environmental impacts of proposed developments and, where required, identify measures to mitigate significant impacts. But what happens when, in the rush to build new housing, development threatens to erase the environmental history of a place? Residents and organizers from Solano Canyon, Chinatown, and Lincoln Heights, alongside youth organizers from the Southeast Asian Community Alliance (SEACA), set out to investigate this question.

The Riboli Family, owners of the historic San Antonio Winery, is seeking approval to build the Buena Vista Project, a proposed 986-unit housing development immediately adjacent to Los Angeles State Historic Park (LASHP). The property occupies part of the former Cornfields, a landscape shaped by more than a century of railroad and industrial activity whose environmental legacy continues to affect surrounding communities. According to CalEnviroScreen, the area ranks among California's most pollution-burdened communities. As part of the approval process, the Buena Vista Project underwent an environmental review that acknowledged documented lead and arsenic contamination on nearby land. Yet the review largely treats contamination beyond the project's boundaries as separate from Buena Vista's environmental conditions. **But can pollution accumulated over generations really be understood through the boundaries of a single property?**

Armed with clipboards and soil-testing kits, community volunteers canvassed surrounding neighborhoods in spring 2026, partnering with residents to collect soil samples and share knowledge about the area's environmental history. Through this community-led investigation, we measured lead concentrations across Elysian Park and nearby residential properties to better understand how contamination varies across a landscape shaped by historic industry, urban development, and topography.

Our findings reveal two important patterns. Across Elysian Park, lead concentrations were associated with landscape characteristics and proximity to surrounding land uses, suggesting that contamination is not distributed randomly across the landscape. Residential sampling revealed a separate but troubling pattern: among 14 residential parcels represented by 22 soil samples, 93% of parcel medians exceeded California's residential soil lead screening level of 80 mg/kg, while 43% exceeded 400 mg/kg, more than five times that threshold.

Although our research cannot establish the source of this contamination or determine soil conditions within Buena Vista itself, it documents a meaningful environmental-health concern in surrounding communities and raises important questions about how environmental reviews account for the cumulative legacies of industrial land use. Pollution does not recognize property lines. By documenting environmental conditions beyond the boundaries of a proposed development, residents are asserting their right to investigate the land they inhabit, question the assumptions of environmental review, and demand that the environmental history of their communities be considered in decisions shaping their future.



Environmental contamination doesn't begin or end at a property line...

Lead, arsenic, and other pollutants can accumulate across a landscape through decades of industrial activity, rail operations, contaminated fill, grading, dust, runoff, and repeated disturbance. Despite these realities, environmental review often evaluates development sites parcel by parcel, relying heavily on existing and often incomplete data available for a specific site within a project boundary. That approach can create a serious blind spot and often places the burden of identifying these risks on the communities most vulnerable to the impacts of reckless development. Just because contamination hasn't been documented doesn't mean it isn't there, and many developers stand to gain from distancing a site from its environmental past. This distinction matters especially where nearby land has a known history of industrial use and documented cleanup. **When environmental review acknowledges contamination next door but does not meaningfully investigate whether that contamination—or the historical processes that created it—may extend into the proposed development site, city planners and developers engage in willful ignorance that harms communities across Los Angeles.**

The Buena Vista Project clearly illustrates this problem. Its environmental review acknowledges documented lead and arsenic contamination immediately adjacent to the project site, yet ultimately treats that contamination as environmentally separate from Buena Vista. Our study asks whether the surrounding soils in Elysian Park and nearby residential neighborhoods actually support that conclusion.

What is the Buena Vista Project?

The Buena Vista Project is **a proposed 986-unit mixed-use development** on approximately 8.08 acres at North Spring Street and North Broadway, immediately adjacent to Los Angeles State Historic Park (LASHP), near Elysian Park and the Los Angeles River. The property sits within a landscape shaped by more than a century of railroad and industrial activity. LASHP occupies 32 acres of the former Southern Pacific River Station complex—part of the larger area historically known as the Cornfields—which included rail yards, freight facilities, maintenance buildings, shops, and a depot. Environmental investigations of the former rail yard later identified multiple contamination areas, and portions of the site underwent remediation before it became a state park.

The Buena Vista environmental review acknowledges this history. The project's Phase I Environmental Site Assessment specifically notes that the adjacent former Cornfield site was listed as a DTSC voluntary cleanup site and that investigators there were working to determine the vertical and lateral extent of lead and arsenic contamination in soil. Yet the assessment assumes that this contamination does not constitute a recognized environmental condition for the Buena Vista property, in part because the contaminated State Park lies at a lower topographic elevation. The assessment also acknowledges that it did not conduct an extensive review of DTSC records for the adjacent cleanup site.

It should be noted that the adjacent, 32-acre portion of the former Cornfield site is also listed as a voluntary cleanup site by the Department of Toxic Substances Control (DTSC). The status is listed as 'Active' as of November 17, 2014; however, reports posted online on the DTSC's EnviroStor database go back to 1989. The most recent document posted online is an approval letter from the DTSC, dated September 11, 2014 indicating that the DTSC "has completed its review of the Final Sampling and Analysis Plan (SAP) for the Los Angeles State Historic Park Site (Site) submitted by Group Delta on September 10, 2014. The SAP describes the field and analytical procedures that will be used to delineate the vertical and lateral extent of arsenic and lead contamination in soil at the Site." Based on the fact that the arsenic/lead impact is reported in *soil* at this adjacent site (which is at a lower topographic elevation relative to the subject property) and given that the DTSC is apparently working with the State of California (Department of Parks and Recreation) to address this issue, it is not considered to represent a *recognized environmental condition* to the subject property at this time and an extensive file review of the DTSC records for this adjacent site was not conducted as part of the scope of this ESA.

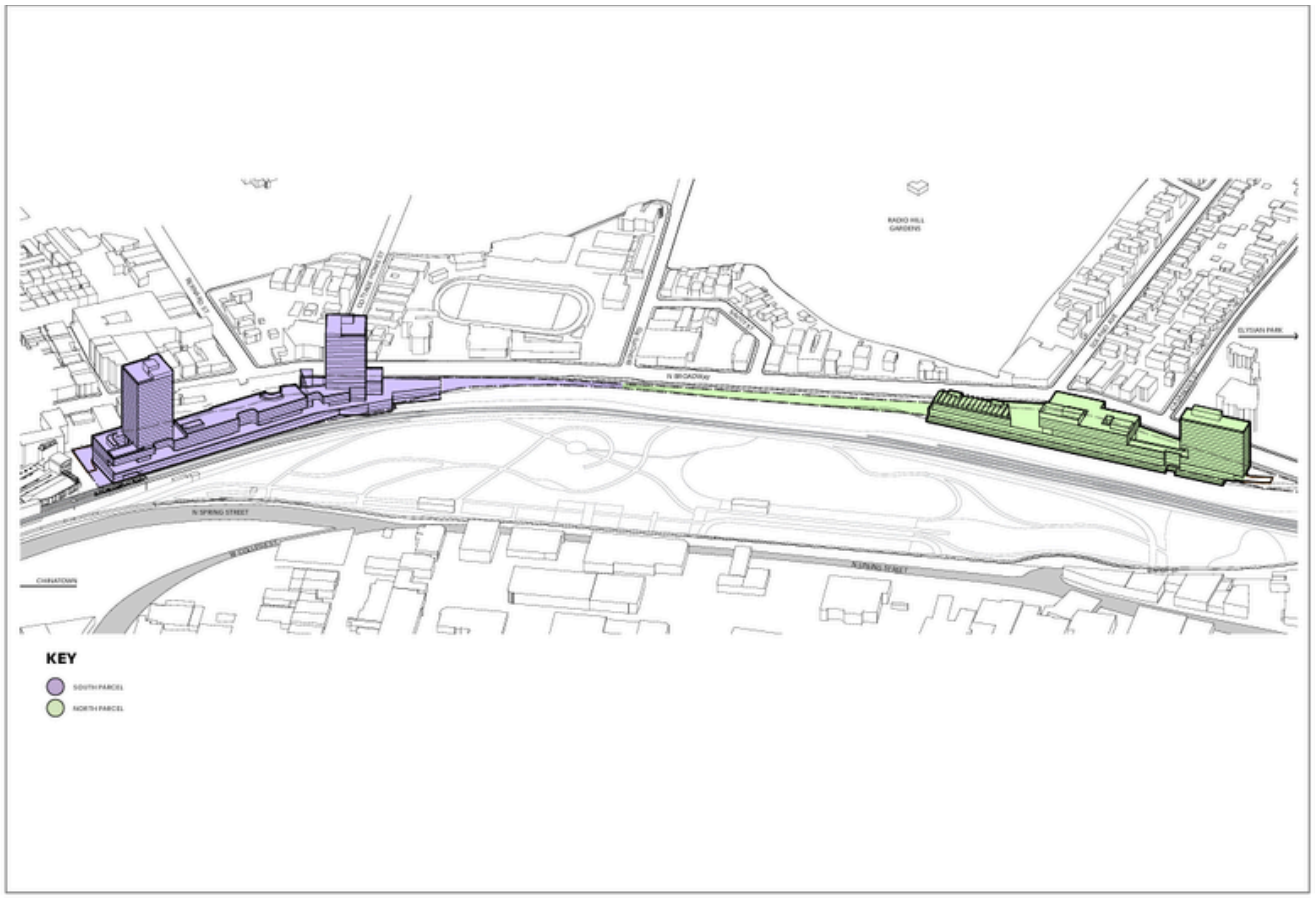
Figure 1. Excerpt from Appendix F: Hazardous Materials Report, PHASE 1 ENVIRONMENTAL SITE ASSESSMENT RIBOLI SITE, Page 19. This is the only reference to heavy metals in the entire Hazardous Waste assessment for the project's current DEIR.

Source: City of Los Angeles Department of City Planning, 2025.



This is the central problem our study examines. The environmental review does not show that elevation explains where lead and arsenic contamination occurs across this landscape, nor does it provide evidence that Buena Vista is free of the contamination found next door; it assumes topography separates the contaminated property below from the development site above. But those parcels share an industrial history, and pollution does not recognize ownership boundaries. If elevation is used to dismiss the relevance of documented contamination immediately next door, then the relationship between elevation and soil lead is not a minor technical detail—it is an empirical claim we, as a community, can test.

Our study begins there. ***By measuring lead in soils across Elysian Park and nearby residential neighborhoods, and comparing concentrations with elevation and other landscape variables, we ask whether the actual pattern of lead contamination supports the assumptions used to evaluate Buena Vista***. Our findings do not establish whether lead contamination is present on the Buena Vista property itself. Instead, they cast further doubt on why a property embedded in this historically connected landscape can reasonably be treated as environmentally distinct from documented contamination and elevated soil lead observed around it without direct site-specific characterization.



SOURCE: RCH Studios 2021

FIGURE 2
North and South Parcel Building Locations
Buena Vista Project Initial Study

Source: City of Los Angeles Department of City Planning, Buena Vista Project Initial Study (2021), Figure 2: "North and South Parcel Building Locations." Original figure source: RCH Studios, 2021.



Source: Los Angeles City Planning, Buena Vista Project Draft EIR, Section II, 2025.



Source: UCSB Library Geospatial Collection, Flight TG-2830, Frame 2-92, October 26, 1970.

What can Elysian Park's lead-contaminated soils reveal about potential contamination at Buena Vista?

Elysian Park is one of Los Angeles' oldest and largest public parks. Overlooking the former Cornfields rail yard, **the park offers a rare opportunity to examine how topography, landscape orientation, and proximity to historically industrial land uses may influence lead (Pb) distribution in urban soils**. Its varied terrain, consistent parkland use, and proximity to the former rail yard make it a valuable natural setting for testing whether elevation alone explains differences in soil contamination across the Buena Vista/Cornfields corridor.

Our multivariate analysis of the **47 Elysian Park samples found that elevation did not materially improve prediction of soil Pb once other landscape variables were considered**. Removing elevation modestly improved model parsimony by Akaike Information Criterion while leaving adjusted explanatory power essentially unchanged. In the final model, lower Pb concentrations were independently associated with increasing distance from the Los Angeles River and LASHP, steeper slopes, and east-facing orientation. Distance from SR-110 did not add independent explanatory value. These results suggest that landscape position, slope, orientation, and proximity to nearby landscape features better describe the spatial distribution of Pb in Elysian Park than elevation alone. ***Elevation differences between the Buena Vista project site and LASHP therefore appear insufficient, on their own, to rule out the potential for elevated soil Pb or related metal contamination within the broader Buena Vista/Cornfields corridor.***



Source: Los Angeles Public Library Photo Collection, TESSA, item 105217.

Where is lead contamination most severe in Solano Canyon homes, and what might be driving it?

Environmental justice begins with understanding the conditions residents already live with. Solano Canyon, one of Los Angeles' oldest residential neighborhoods, sits within a corridor shaped by more than a century of industrial activity, transportation infrastructure, and urban development. Yet assessments of new development do not always reflect the environmental burdens carried by surrounding communities. As the proposed Buena Vista project advances, examining lead contamination in neighboring residential soils offers a community-based reality check: ***What environmental risks are residents already living with, and how should those conditions inform decisions about the corridor's future?***

Residential sampling revealed a separate but notable pattern. Among 22 residential samples, median Pb was 289 mg/kg. After aggregating repeated measurements by parcel, median Pb was 328 mg/kg across 14 parcels, with an interquartile range of 206–529 mg/kg. **93% of the homes tested had medians exceeding 80 mg/kg (California's screening limit for residential soil Pb), 79% exceeded 200 mg/kg (the federal limit of soil Pb), and 43% exceeded 400 mg/kg**. Elevated Pb was therefore broadly distributed among the sampled properties rather than being driven by one or two isolated measurements. Housing age showed the strongest exploratory association with residential Pb, with older parcels tending to have higher concentrations (Spearman $\rho = -0.54$, $p = 0.058$). By contrast, Pb showed little association with distance to LASHP or SR-110 and only a weak, nonsignificant relationship with distance to the Los Angeles River. With only 14 independent parcels, these relationships should be interpreted as exploratory and do not establish the source of residential lead. However, ***they identify a meaningful environmental-health concern in the sampled Solano Canyon properties and support the need for additional testing, exposure assessment, and community-centered follow-up.***





A family enjoys the open space of LA State Historic Park. In the background is the Buena Vista property and Radio Hill.

Taken together, these results do not establish that Buena Vista soil is contaminated, nor do they identify a specific source for the lead observed in Elysian Park or surrounding residential properties. They do, however, raise doubts as to the City's conclusion that relative elevation is sufficient to explain the spatial distribution of lead measured in the neighboring landscape. When considered alongside the documented railroad and industrial history of the River Station/Cornfield area and known contamination and remediation at LASHP, the surrounding soil observations leave an important site-specific question unresolved.

The most direct way to resolve that uncertainty is through soil characterization of the Buena Vista property itself. ***We therefore urge the City of Los Angeles Planning Department, Council District 1, the property owners, and project partners to pursue site-specific subsurface soil characterization conducted by a qualified environmental professional, with a sampling plan informed by historic railroad uses and proposed excavation depths, and analysis sufficient to evaluate Pb, As, and other contaminants of concern identified from site history.*** Such testing would address a significant data gap and provide a stronger empirical basis for protecting public and environmental health as this former industrial corridor continues to negotiate redevelopment with the widespread lead contamination documented in this community study.

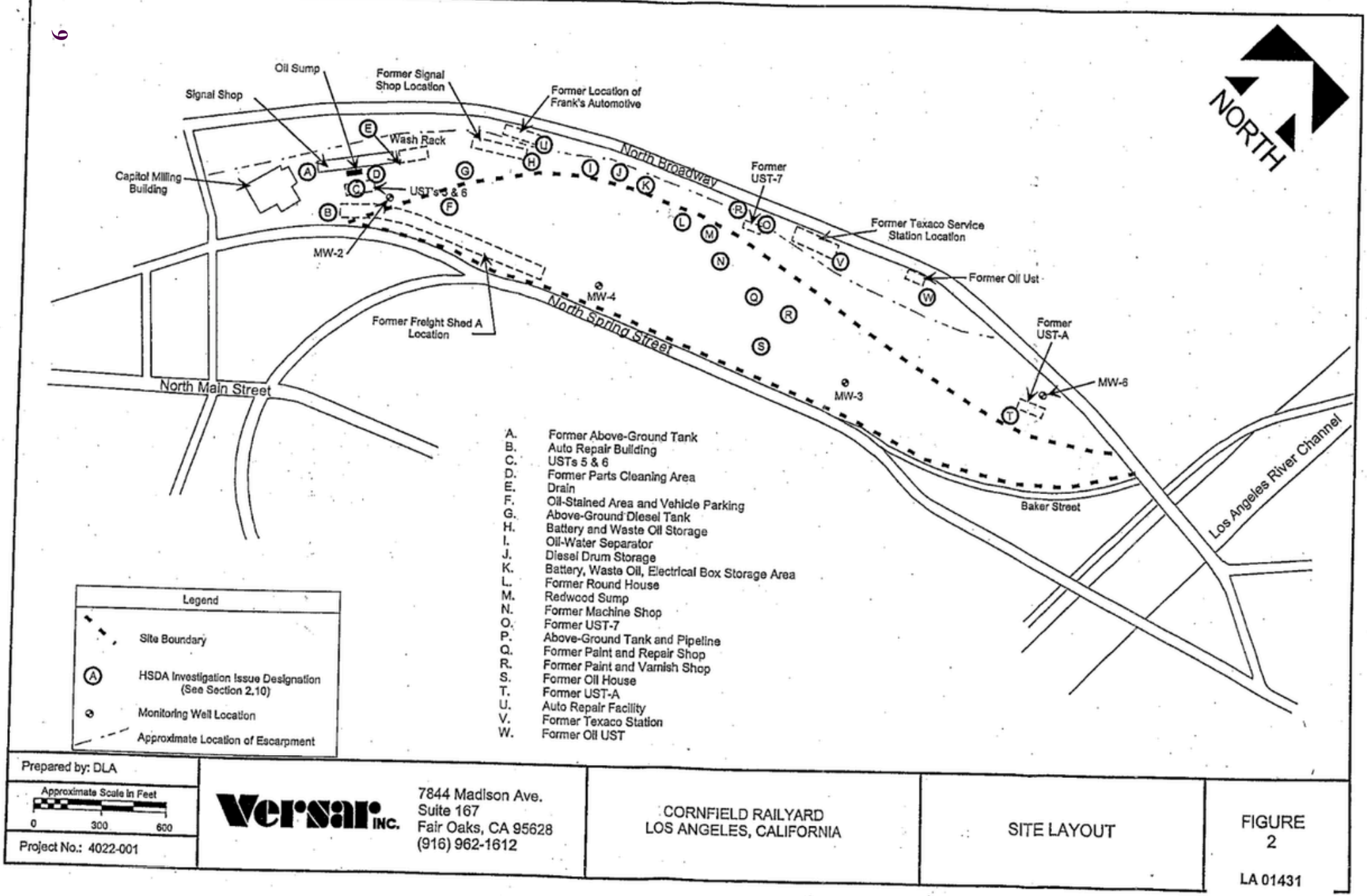


Figure 2. **Historical Industrial Uses of the 50-Acre Cornfields Rail Yard.** The map identifies former railroad maintenance facilities, automotive repair shops, underground storage tanks, oil storage areas, and other potentially contaminating industrial uses across the historical Cornfields property. Many of these potential sources of contamination are found directly on the Buena Vista project's boundaries adjacent to North Broadway. Source: Versar, Inc., Cornfield Railyard, Los Angeles, California: Site Layout, Figure 2, Project No. 4022-001. Archived by the California Department of Toxic Substances Control (DTSC), Cornfield Site, EnviroStor ID 19400013, Document ID 60365969.

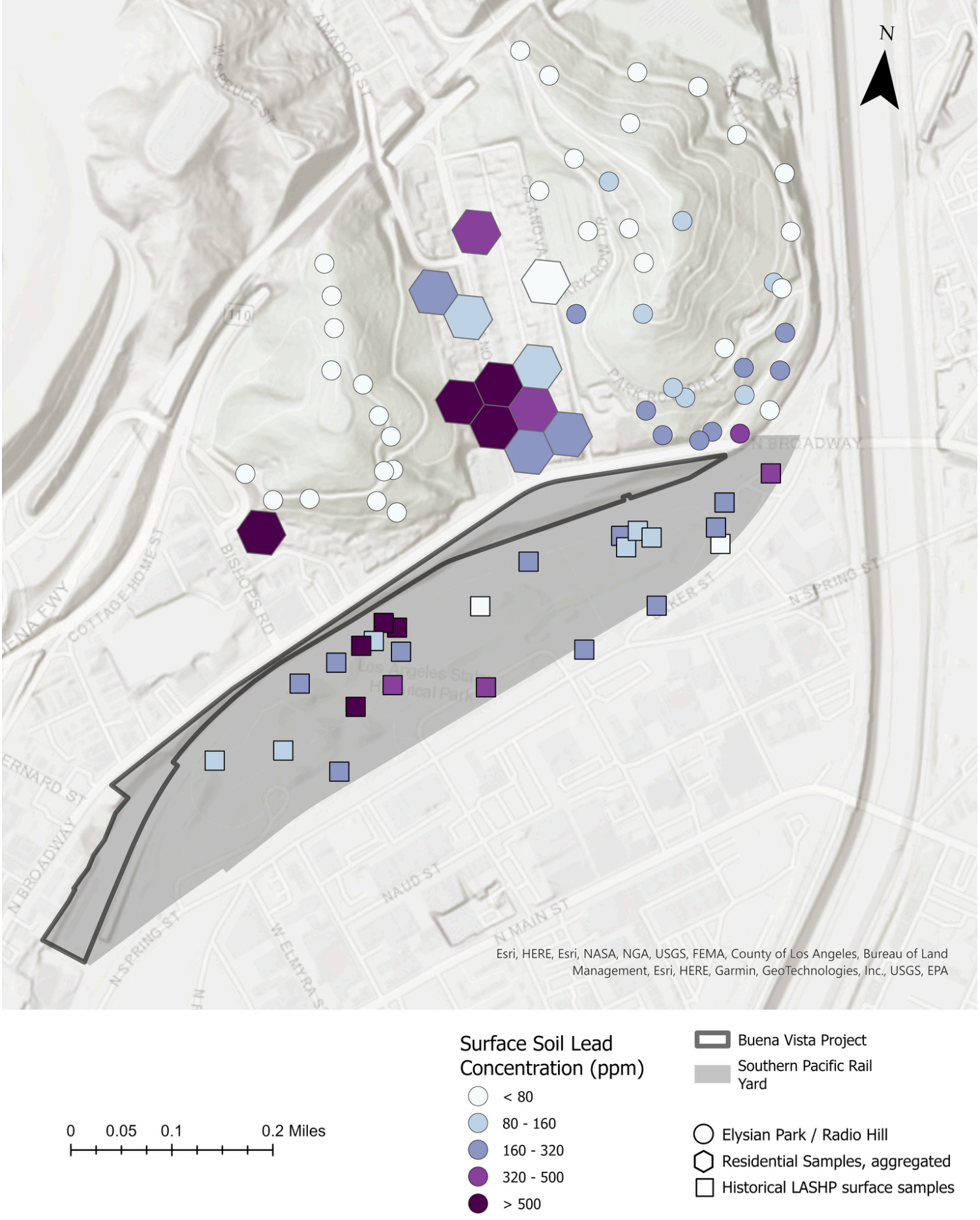


Figure 3. Surface-soil lead (Pb) concentrations across Elysian Park/Radio Hill, nearby residential properties, and Los Angeles State Historic Park (LASHP), shown in relation to the proposed Buena Vista development and former Southern Pacific rail yard. LASHP concentrations reflect historical, pre-remediation measurements reported by Shaw Environmental & Infrastructure, Inc. (2002). The map illustrates the spatial distribution of elevated Pb across parkland, residential neighborhoods, and historically industrial landscapes. Residential measurements were aggregated at the parcel level to protect participant privacy.



Prepared soil samples from Elysian Park, Radio Hill, and Solano Canyon.

A FIELD MODEL OF LEAD CONTAMINATION IN ELYSIAN PARK

We analyzed 47 soil sampling locations across Elysian Park using X-ray fluorescence (XRF) to test whether lead contamination was present in one of Los Angeles's oldest and largest parks and to assess which landscape variables were most strongly associated with observed lead concentrations. We developed a multivariable model using log-transformed Pb concentrations as the response variable and elevation, slope, distance from the Los Angeles River, distance from Los Angeles State Historic Park, distance from the SR-110 (Pasadena/Arroyo Seco) corridor, north–south aspect, and east–west aspect as explanatory variables.



WE FOUND 17 OF 47 ELYSIAN PARK SAMPLES (36%) EXCEEDED CALIFORNIA DTSC'S 80 MG/KG RESIDENTIAL/UNRESTRICTED-USE SCREENING LEVEL.

4 OF 47 SAMPLES (8.5%) EXCEEDED EPA'S 200 MG/KG RESIDENTIAL SOIL SCREENING LEVEL.

Sieved soil being prepped into sample cups for XRF analysis.

Lead Contamination and Proximity to SR-110

Lead concentrations showed substantial spatial variability, including several elevated concentrations in portions of Elysian Park nearest the Buena Vista–Cornfield landscape. In the initial analysis, distance from the Arroyo Seco/Pasadena 110 Freeway was positively correlated with Pb (Spearman ρ = +0.61), meaning that samples farther from the freeway tended to have higher soil lead concentrations. This direction is inconsistent with a simple hypothesis in which proximity to the freeway is the principal driver of the observed lead pattern.

Distance from the 110 also strongly correlated with other landscape-position characteristics, including elevation, distance from the Los Angeles River, and distance from Los Angeles State Historic Park. When these variables were considered together, distance from the 110 had no statistically detectable independent relationship with Pb ($p = 0.604$) and showed the highest collinearity of the variables evaluated (VIF = 5.77). Removing the 110 variable slightly improved model performance, increasing adjusted R^2 from 0.444 to 0.454 and reducing AIC from -12.70 to -14.37. We therefore excluded freeway distance from subsequent models. These results do not rule out historical roadway deposition, but they indicate that proximity to the 110 does not independently explain the spatial pattern of Pb observed in this dataset.

The SR-110 has bifurcated Elysian Park since 1941.



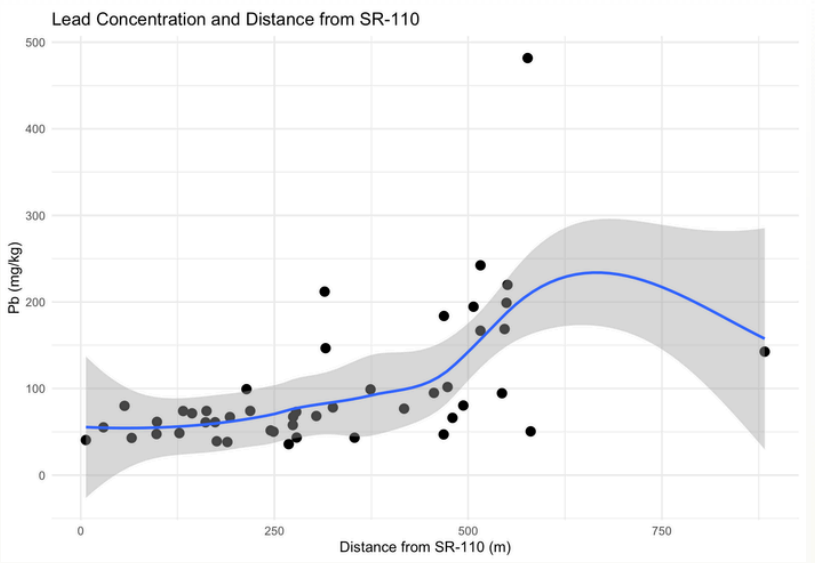
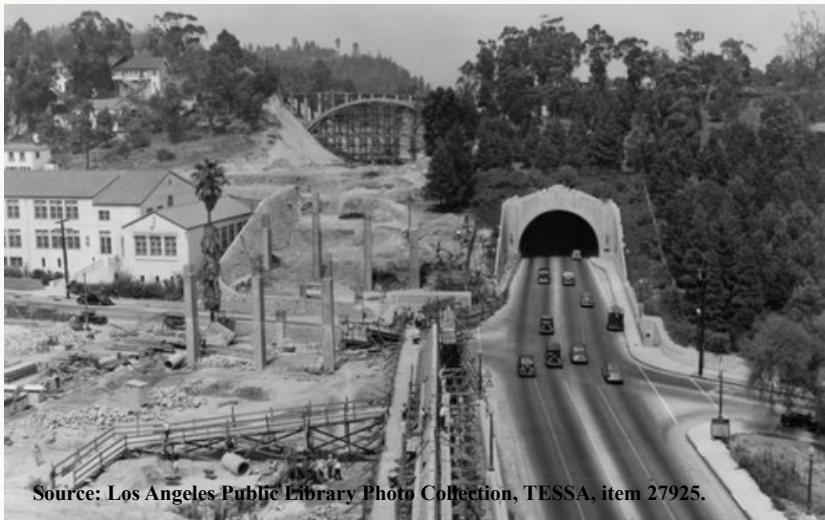


Fig 4. Pb concentrations generally increased with distance from SR-110, indicating that the highest observed lead levels were not concentrated nearest the freeway.



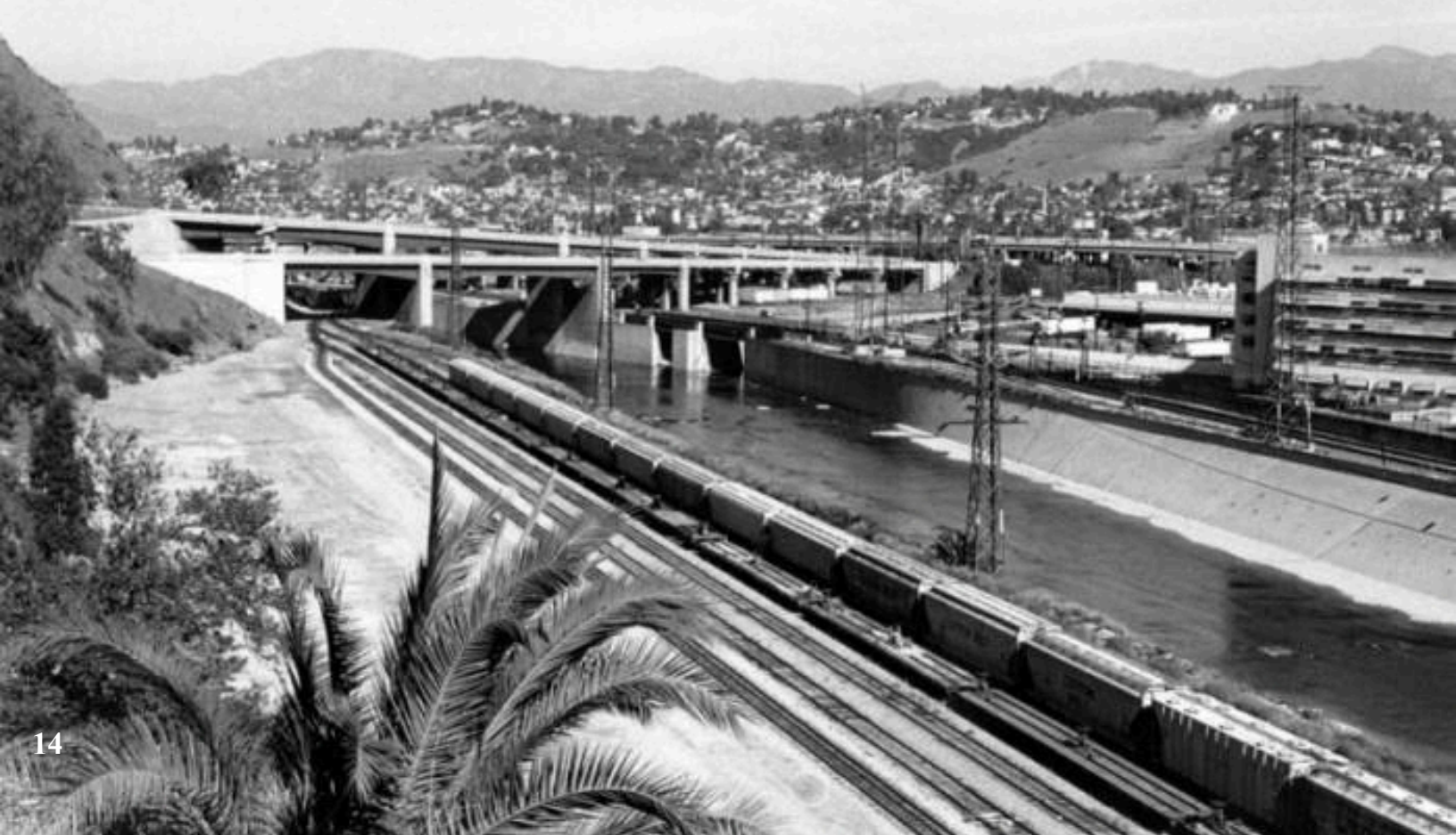
Source: Los Angeles Public Library Photo Collection, TESSA, item 27925.

Lead Contamination and Proximity to the LA River and the Cornfields/LASHP

Raw data initially showed a moderate negative association between elevation and Pb (Spearman $\rho = -0.47$), with lower-elevation locations generally containing higher lead concentrations. However, elevation was itself strongly correlated with several other geographic variables, suggesting that it also functioned as a proxy for broader landscape position. Once river proximity, slope, aspect, and proximity to Los Angeles State Historic Park were considered simultaneously, elevation explained little additional variation in Pb. Adding elevation did not significantly improve the model ($p = 0.308$). The model excluding elevation had a slightly lower AIC than the model including it (-15.14 versus -14.37) while retaining essentially identical adjusted explanatory power (adjusted $R^2 = 0.453$ without elevation versus 0.454 with elevation). A nested-model comparison likewise found no significant improvement from including elevation ($F = 1.067$, $p = 0.308$).

Our final multivariable model explained approximately 45% of the variation in log-transformed Pb after accounting for model complexity (adjusted $R^2 = 0.453$; unadjusted $R^2 = 0.512$). Distance from the Los Angeles River showed the strongest independent relationship with Pb ($p = 5.35 \times 10^{-5}$), with concentrations tending to decline as distance from the River increased. Pb was also significantly associated with slope ($p = 0.0114$), distance from Los Angeles State Historic Park ($p = 0.0158$), and east–west aspect ($p = 0.0495$). North–south aspect was not associated with Pb ($p = 0.570$).

The Los Angeles River is a major historical rail corridor connecting the former railyard in what is now LA State Historic Park to other major freight lines.



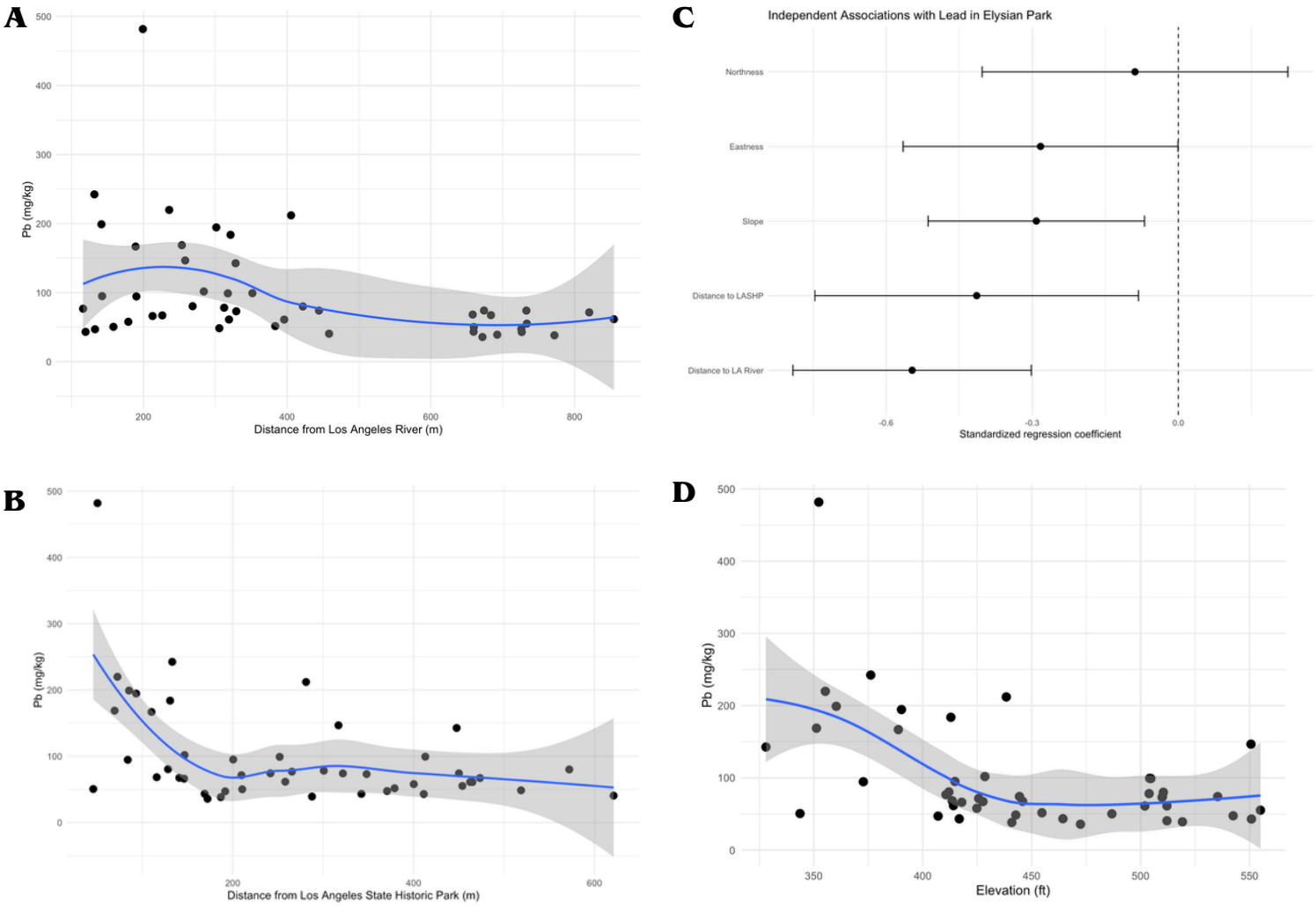


Figure 5. (A) Lead and distance from the Los Angeles River. Pb concentrations generally declined with increasing distance from the River. ***(B) Lead and distance from Los Angeles State Historic Park.*** Pb concentrations were higher near LASHP, with concentrations generally declining with distance. ***(C) Independent predictors of lead in Elysian Park.*** Standardized model coefficients show the independent relationships of river distance, LASHP distance, slope, and aspect with Pb after accounting for the other landscape variables. **(D) Soil lead (Pb) concentrations generally decline with increasing elevation in Elysian Park**, although substantial variation at lower elevations and a leveling-off at higher elevations suggest that elevation alone does not explain the observed contamination patterns.

These results suggest that elevation itself is not a necessary explanatory variable once broader landscape position is considered. Rather, the observed Pb pattern appears more closely associated with proximity to the Los Angeles River and the Cornfield/LASHP landscape, together with local terrain characteristics. These associations do not establish contaminant source or transport pathway, but they indicate that neither elevation nor proximity to the 110 adequately explains the observed distribution of lead.

Model	Predictors removed	Adjusted R^2	AIC
Full	none	0.444	-12.7
No SR-110	SR-110	0.454	-14.37
No SR-110 or elevation	SR-110 + elevation	0.453	-15.14

Table 1. Removing SR-110 distance and elevation did not weaken the model. Instead, the simpler model performed slightly better, suggesting that these variables do not independently explain the observed pattern of soil lead once other landscape factors are considered.



Rail spurs and other infrastructure visibly occupies the parcel where the Buena Vista project lies. The Solano Canyon community directly faces this rail complex. Source: UCSB Library Geospatial Collection, Flight C-2917, Frame z-80, 1934.

LEAD IN OUR BACKYARDS: UNCOVERING PATTERNS OF SOIL CONTAMINATION IN SOLANO CANYON

Residential soil Pb was elevated across much of the sampled area. Among 22 individual samples, the median Pb concentration was 289 mg/kg (IQR: 184–534 mg/kg), and 72.7% exceeded 200 mg/kg. After repeated measurements were aggregated by parcel, median Pb concentrations ranged from 47.6 to 724 mg/kg across 14 parcels, with a median of 328 mg/kg (IQR: 206–529 mg/kg), an arithmetic mean of 365 mg/kg, and a geometric mean of 292 mg/kg. Thirteen of 14 parcels (92.9%) had median Pb concentrations above 80 mg/kg, 11 of 14 (78.6%) exceeded 200 mg/kg, and 6 of 14 (42.9%) exceeded 400 mg/kg. These results indicate that elevated Pb was broadly distributed among the sampled properties rather than being driven by a small number of isolated measurements.

At the individual-sample level, Pb showed a moderate tendency to be higher at older properties (Spearman $\rho = -0.36$, $p = 0.12$). After aggregating repeated samples by parcel, this relationship strengthened: older parcels tended to have higher Pb concentrations (Spearman $\rho = -0.54$, $p = 0.058$). Housing age therefore appears to be the strongest of the variables examined, although the relationship did not meet a conventional threshold for statistical significance. In contrast, parcel-level Pb showed little association with distance to Los Angeles State Historic Park ($\rho = -0.21$, $p = 0.47$) or SR-110 ($\rho = -0.04$, $p = 0.89$), and only a weak, nonsignificant relationship with distance to the Los Angeles River ($\rho = 0.30$, $p = 0.30$). Given the small sample of 14 independent parcels, interpret these relationships as exploratory rather than definitive.

Taken together, these findings indicate that residential soil lead in Solano Canyon is not an isolated anomaly but a broader environmental-health concern within the Buena Vista/Cornfields landscape. The prevalence of elevated Pb across sampled parcels warrants additional neighborhood-scale testing and exposure assessment, particularly where homes, parks, transportation infrastructure, and historically industrial land uses overlap. ***While these data do not establish contaminant source, they strengthen the case for treating soil contamination as a community-level environmental-justice issue rather than a parcel-by-parcel problem.***

Table 2. Parcel-level associations between residential soil lead (Pb) concentrations and selected property and landscape variables in Solano Canyon. We calculated Spearman rank correlations across 14 sampled parcels. Housing age showed the strongest observed association with Pb, while relationships with proximity to LASHP, the Los Angeles River, and SR-110 were comparatively weak. Given the small sample size, interpret these associations as exploratory rather than definitive.

Predictor	Spearman ρ	p-value	Interpretation
Year built	**-0.538**	**0.0576**	Moderate-to-strong tendency for older parcels to have higher Pb
Distance to LASHP	-0.209	0.474	Weak association
Distance to LA River	0.301	0.296	Weak-to-moderate tendency for higher Pb farther from river
Distance to SR-110	-0.042	0.887	Essentially no association

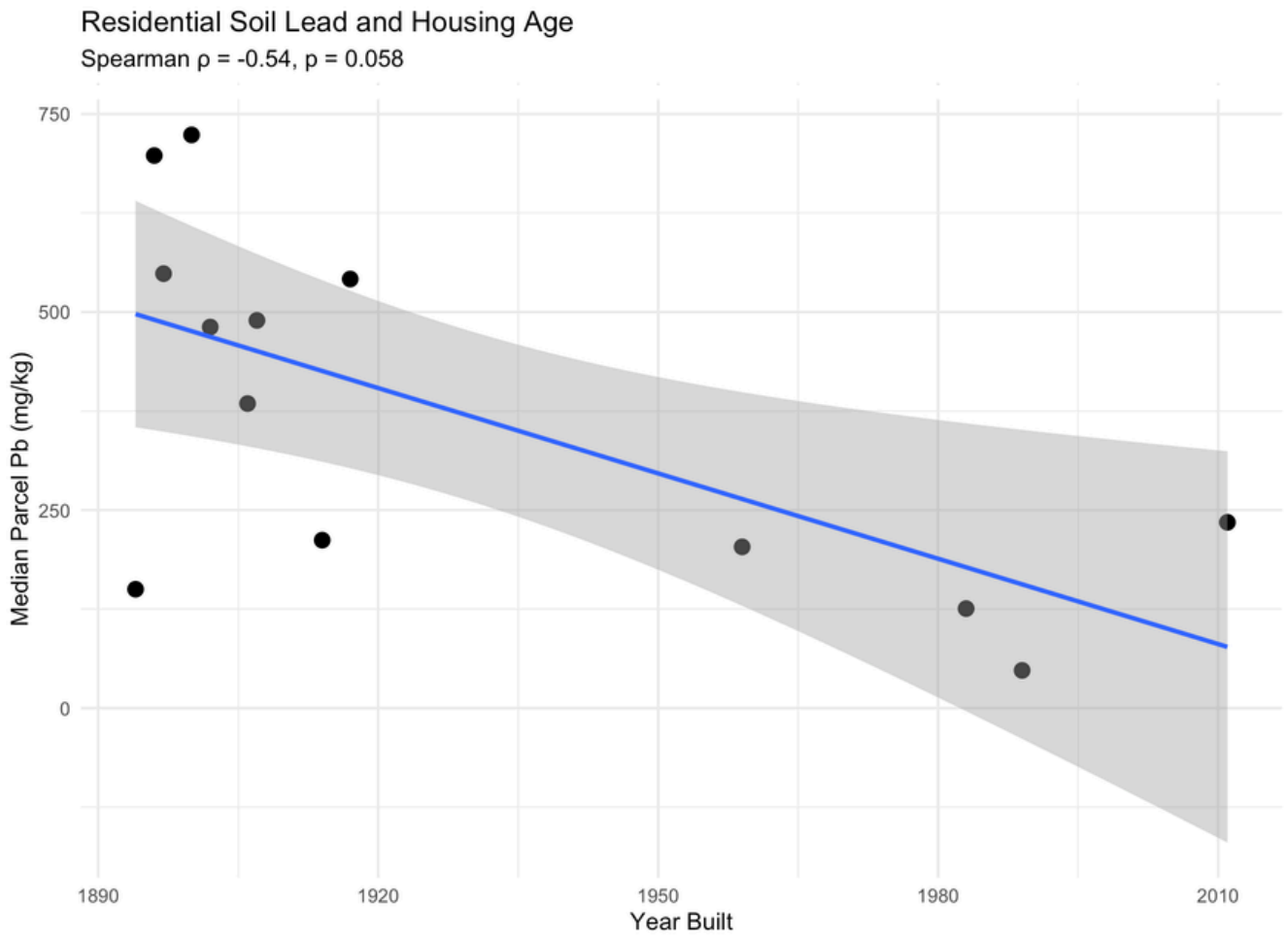


Figure 5. Median residential soil Pb by year built. Older sampled parcels generally had higher Pb concentrations (Spearman ρ = -0.54, p = 0.058), representing the strongest residential association examined.



21 OF 22 SAMPLES (95%) EXCEEDED DTSC'S 80 MG/KG RESIDENTIAL/UNRESTRICTED-USE SCREENING LEVEL.

NEARLY 3 IN 4 EXCEEDED EPA'S 200 MG/KG RESIDENTIAL SOIL SCREENING LEVEL.

9 OF 22 SAMPLES (41%) EXCEEDED 400 MG/KG, EPA'S FORMER RESIDENTIAL SOIL LEAD SCREENING LEVEL.

MEDIAN LEAD CONCENTRATION: 289 MG/KG.
HIGHEST LEAD CONCENTRATION: 1,182 MG/KG.

Methods

Soil Sample Collection & Processing

Solano Canyon residents and SEACA youth participated in the community science effort to collect 22 residential soil samples from homes in Solano Canyon and Chinatown during April and May 2026. The volunteers canvassed the neighborhood and instructed interested residents to collect only surface soil, to a maximum depth of 6 inches. They also provided residents with sampling kits that included personal protective equipment and other necessary materials. Each address could submit up to two samples.

Forty-seven additional surface soil samples were collected by the lead investigator from July through September 2026 across Elysian Park and Radio Hill. These samples were collected from the soil surface to a depth of approximately 4 inches using a soil core sampler.

All samples were oven-dried at 165°F for at least 2 hours, manually homogenized using a laboratory-grade mortar and pestle to break apart large soil aggregates, and sieved through a #35 stainless steel sieve at Metabolic Studio. We packed the sieved soil into Premier XRF sample cups and analyzed it using a Thermo Fisher Scientific Niton™ XL5 Plus handheld X-ray fluorescence (XRF) analyzer, operated and calibrated in accordance with manufacturer guidance.

We used XRF measurements as a community-scale screening tool for total elemental concentrations. Routine replicate measurements were not conducted for every sample; repeat readings were performed when an initial result appeared anomalous or otherwise warranted verification. Accordingly, we interpret the measurements as screening-level environmental data rather than a substitute for certified laboratory analysis conducted under a regulatory sampling protocol.



Figure 6. (A) Youth community organizers at SEACA with support from the broader coalition lead canvassing and soil sample collection throughout Solano Canyon and Chinatown. (B) Sample collection at a residence close to Buena Vista.

Spatial Data and Landscape Variables

For the Elysian Park/Radio Hill dataset, we recorded geographic coordinates for each sampling location and used them to derive landscape variables hypothesized to influence the spatial distribution of soil lead. We obtained elevation data from the U.S. Geological Survey Elevation Point Query Service. We derived local slope and aspect from a digital elevation model using the *elevatr* and *terra* packages in *R*. We transformed aspect into northness and eastness components, calculating northness as the cosine of aspect and eastness as the sine of aspect.

We conducted spatial analyses in a projected coordinate system appropriate for the Los Angeles area (NAD83 / UTM Zone 11N; EPSG:32611). Straight-line distances were calculated from each sampling location to the Los Angeles River centerline, the boundary of Los Angeles State Historic Park, and the SR-110/Pasadena Freeway corridor using geographic information system shapefiles and the *sf* package in R. These variables represent geographic proximity and should not be interpreted as direct measures of contaminant transport or source contribution. Distance measurements are reported in meters.

The Buena Vista/Cornfields corridor today.



Statistical Analysis of Elysian Park and Radio Hill Samples

Because soil Pb concentrations were right-skewed, we log10-transformed Pb before multivariable regression analysis. We explored initial relationships between Pb and continuous landscape variables using Spearman rank correlations. We then fitted a multiple linear regression model with log-transformed Pb concentration as the response variable and elevation, slope, distance to the Los Angeles River, distance to Los Angeles State Historic Park, distance to SR-110, northness, and eastness as explanatory variables.

We assessed potential multicollinearity among predictors using variance inflation factors (VIFs). Candidate models were compared using adjusted R^2, Akaike Information Criterion (AIC), coefficient significance, and nested-model comparisons where appropriate. We removed distance to SR-110 after it showed no independent association with Pb in the multivariable model and had comparatively high collinearity with other geographic variables. We then evaluated elevation by comparing otherwise equivalent models with and without elevation. Because including elevation did not significantly improve model fit, and the model excluding elevation had a modestly lower AIC with essentially unchanged adjusted R^2, we excluded elevation from the final model.

The final model included slope, distance to the Los Angeles River, distance to Los Angeles State Historic Park, northness, and eastness. We calculated standardized regression coefficients to compare effect sizes among variables measured on different scales.

Spatial Autocorrelation in the Elysian Park Field Model

We evaluated residual spatial autocorrelation using Moran's I across multiple nearest-neighbor specifications. A five-neighbor model showed negative spatial autocorrelation, but this result was not robust to alternative neighborhood definitions. Moran's I was nonsignificant for 6-, 8-, and 10-nearest-neighbor structures; under the fully connected 10-neighbor network, Moran's I was -0.087 ($p = 0.222$). These results did not indicate persistent residual spatial autocorrelation.



Residential Soil Analysis

We analyzed residential samples separately from the Elysian Park/Radio Hill dataset because residential soil Pb may be influenced by distinct source pathways and site-specific factors, including housing age, lead-based paint, roadway deposition, fill material, and historical industrial activity.

Because some properties submitted multiple soil samples, we analyzed them at the individual-sample level and after aggregating by parcel. For parcel-level analyses, we calculated the median Pb concentration for each unique parcel to reduce the influence of repeated sampling from the same property and unusually high individual measurements. Twenty-two individual samples represented 14 unique parcels.

We identified parcel boundaries using City of Los Angeles parcel data and matched them to residential records using Assessor Parcel Numbers (APNs). We generated a representative point within each parcel polygon for spatial analysis. We calculated straight-line distances from each parcel to Los Angeles State Historic Park, the Los Angeles River, and SR-110 in UTM Zone 11N.

We evaluated associations between residential Pb concentration and year built, distance to Los Angeles State Historic Park, distance to the Los Angeles River, and distance to SR-110 using Spearman rank correlations. Given the small number of independent parcels (n = 14), residential analyses were considered exploratory and no multivariable regression model was fitted.



A Historical Timeline of the Buena Vista/Cornfields Corridor

The Story of Buena Vista: Centuries of Colonization, Industry, Displacement, and Community Struggle Over Who Gets to Shape Los Angeles



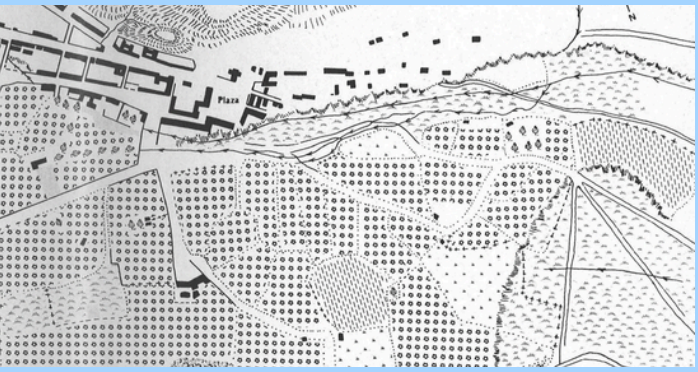
Since Time Immemorial

The corridor lies within Tongva homelands, in the floodplain of the Los Angeles River or Paayme Paxaayt. **Yangna**, one of the largest documented Tongva villages in the basin, lay within about a mile of present-day Los Angeles State Historic Park. The River, seasonal flooding, wetlands, riparian habitat, and Indigenous stewardship shaped the landscape.

1771–1781 - Colonization

Spanish colonization profoundly harms Indigenous communities. Mission San Gabriel is established in 1771. The early Mission struggles to establish itself, so the Spanish government enlists pobladores to found Los Angeles in 1781 to support colonization. Forced labor by Gabrieleño-Tongva is used to construct the **Zanja Madre** in 1781, carrying Los Angeles River water through the Buena Vista area along present-day Broadway to the pueblo and agricultural fields. Portions of the historic water system remain near LASHP and likely run beneath parts of the Buena Vista project.





Late 1700s–mid-1800s

The Buena Vista /Cornfields area remains closely connected to the River and agriculture. The landscape begins transitioning from an active floodplain and the center of Tongva ancestral villages toward an increasingly engineered agricultural landscape full of grain, vineyards, and orchards. Spanish Rule gave way to Mexican Rule. Population of Los Angeles began to grow rapidly, especially after California was annexed by the United States in 1848.

1866–1888 — Solano Canyon established

Solano Canyon was first settled in 1866, when Francisco Solano purchased 87 acres from the City of Los Angeles and built an adobe there. The area developed into a recognizable residential community beginning in 1888, when his son Alfredo Solano subdivided part of the property into the Solano Tract.





1875 - River Station Opens

Southern Pacific establishes River Station at what is now LASHP, including a freight house and depot. Built during an era when Chinese laborers were instrumental to railroad construction, the station transformed Los Angeles from an agricultural pueblo into a booming industrial city. The railroad's arrival also shapes the growth of Old Chinatown near the Plaza and rail corridor, where Chinese immigrants establish homes, businesses, and community institutions despite widespread discrimination. River Station becomes known by some as the “Ellis Island” of the American West.

1879–1904 - River Station becomes a Rail Yard known as the Cornfields

River Station expands dramatically: a hotel, roundhouse, turntable, machine and car shops, blacksmith facilities, coal infrastructure, freight operations and other industrial uses occupy the site. By the 1880s, Southern Pacific is Los Angeles's largest employer and River Station is its Southern California headquarters. The surrounding corridor urbanizes rapidly. Railroad development, industry and immigration reshape Chinatown, Lincoln Heights and the River. The name “Cornfield” becomes associated with the rail yard—often attributed to corn spilled from freight cars sprouting beside the tracks.





Late 1800s–early 1900s - LA becomes an oilfield

Oil extraction expands across Los Angeles. Oil and gas wells are eventually drilled on what is now the Buena Vista project property; those historic wells remain part of the site's environmental record. The present project site is also within a designated methane zone. Only one oil well has been successfully located in the current EIR.



1886 — Elysian Park established

The City of Los Angeles formally set aside roughly 550 acres as Elysian Park on April 5, 1886, making it the city's first official municipal park. Its hills formed an important open-space landscape immediately North of the Cornfields/Buena Vista corridor.



1904 - River Station Closes

Southern Pacific moved its major shops north to Lincoln Heights, but the Cornfield remained an active freight and rail yard for most of the 20th century until the company ceased all operations in 1996. Subsurface foundations and other industrial features remain beneath the present park.



1917 - San Antonio Winery is Founded

Italian immigrant Santo Cambianica establishes San Antonio Winery at 737 Lamar Street in Lincoln Heights, becoming part of the neighborhood's Italian immigrant and agricultural heritage. Following Cambianica's death in 1956, his nephew Stefano Riboli and Stefano's wife, Maddalena, assume ownership of the winery, continuing a family legacy that endures today.

More than a century later, the Riboli family is also behind the proposed Buena Vista development, immediately north of Los Angeles State Historic Park.



1933 — Los Angeles Destroys Old Chinatown for Union Station

Beginning in 1933, Los Angeles demolished much of Old Chinatown to construct Union Station, displacing Chinese American residents, businesses, and community institutions. The station opened in 1939, consolidating regional railroad transportation while erasing a neighborhood rooted in decades of immigrant history.



1937 — The Elysian Park Landslide

Approximately 1.5 million tons of earth and rock slid from Elysian Park near Buena Vista Peak onto Riverside Drive. The landslide crushed infrastructure, severed water and electrical lines, and forced residents from nearby properties. The event revealed the scale of natural hillside instability along the River corridor.



1938 - LA River Floods Devaste LA and its channelization begins

In February–March 1938, extreme storms caused the Los Angeles River and other regional rivers to overflow, producing one of Southern California's most destructive floods. The disaster helped accelerate federal flood-control projects and the subsequent channelization of the Los Angeles River, permanently transforming the hydrology of the Cornfields/Buena Vista floodplain. The LA River's channelization is not fully completed until the 1960s.



1938 - New Chinatown Rebuilds

Following the destruction of Old Chinatown, Chinese American community leaders and business owners developed New Chinatown around Central Plaza, near the Cornfields. Opened in 1938, it represented both community resilience and the lasting consequences of displacement through major public infrastructure projects.



20th Century at the Buena Vista Parcel

Uses documented at the Buena Vista site include Southern Pacific/railroad operations (including rail spurs), a gasoline station, automobile repair, underground fuel storage, and oil and gas wells. The parcel also featured a pedestrian bridge for Southern Pacific workers. Later, Metro-related maintenance activities occurred on the site. The Buena Vista parcel remained closely tied to the railyard throughout the 1900s.

1950-1959 – Chavez Ravine Destroyed

The predominantly Mexican American communities of Palo Verde, La Loma, and Bishop were targeted for clearance through eminent domain for a proposed public housing development. After those plans collapsed, the land was transferred for Dodger Stadium. The last residents were forcibly evicted in May 1959, ending generations of neighborhood history and stewardship.





1991 - Southern Pacific lists the Cornfields for sale

Southern Pacific places its former 50-acre Cornfields rail property, which included the Buena Vista property and the land where the current Metro light rail operates today, on the market. The rail yard had been mostly vacant since the 1980s, after decades of service as a busy rail yard.

1996 – Southern Pacific ends use

Southern Pacific officially ends all operations at the Cornfield rail yard after more than a century of railroad use. The Southern Pacific Transportation Company was also acquired in 1996 by the Union Pacific Corporation and merged with their Union Pacific Railroad.





1997 - 2001 – The Fight for the Cornfields by the Chinatown Railyard Alliance

Following the closure of the Southern Pacific rail yard, Union Pacific put the 32-acre Cornfields property up for sale. With support from city officials, Majestic Realty proposed an $80 million industrial development featuring approximately 909,200 square feet of warehouses and light manufacturing facilities. In response, the Chinatown Yards Alliance, a multiracial coalition of more than 30 community, civil rights, and environmental organizations led by Friends of the Los Angeles River, mobilized against the project. Citing environmental concerns, historic inequities in park access, and the surrounding communities' need for green space, the coalition pursued legal action, organized residents, and advocated for a public park. Their efforts culminated in 2001, when Majestic agreed to sell the land to the State of California for $30 million, securing the future Los Angeles State Historic Park as a landmark environmental justice victory.

2001 – The Cornfields are Divided, and the LA State Park begins to emerge

Although the historic Cornfields rail yard encompassed approximately 50 acres, only 32 acres were secured for California State Parks. Approximately seven acres were designated for the Metro Gold Line, while other portions of the former railroad property remained outside the park's boundaries. Among these adjoining lands was the approximately eight-acre property now proposed for the Buena Vista development by the Riboli family. While the Cornfields campaign represented a landmark victory for environmental justice and public open space, the division of the former rail yard left portions of this historically industrialized landscape subject to private redevelopment.



2001 - 2011 - The Soil Remembers its History and Contamination

Archaeological investigations begin revealing extensive remains of River Station, including the roundhouse, turntable, machine shop, hotel and other industrial features beneath the site. Environmental investigations also identify elevated concentrations of lead and arsenic in the soil within the 32-acres of the Cornfields, revealing the lasting legacy of more than a century of industrial activity and the need for environmental remediation.

2005 - 2006 - *"Not-a-Cornfield"*

Artist Lauren Bon transforms the former railroad yard into a living artwork by cultivating 32 acres of corn at what is now Los Angeles State Historic Park. Not a Cornfield begins an ongoing body of work exploring the site's agricultural and industrial histories and the relationship between land, water, and community. This work continues today through Bending the River, which seeks to return water from the LA River to the surrounding landscape for ecological restoration and community benefit.





2006 - 2013 - Farmlab & Anabolic Monument

Building on Not a Cornfield, Farmlab and Anabolic Monument extend Metabolic Studio's work through ecological experiments, public programming, and artistic inquiry into the relationships between land, water, infrastructure, and community. These activities carry forward the materials, relationships, and questions of Not A Cornfield, and continue the work of reconnecting communities with the Cornfields' industrial history, living systems, and possibilities for environmental repair.

2013 - 2021 - The Ugly Wall of Chinatown & the Buena Vista Project

The Riboli family, in partnership with Lincoln Property Company, advances plans for a massive residential development along the northern edge of Los Angeles State Historic Park. Initially known as Elysian Park Lofts, the 2016 proposal calls for approximately 920 residential units on land adjoining the former Cornfields rail yard. Community critics dub the project the "Great Wall of Chinatown," raising concerns about its scale, neighborhood connectivity, and the transformation of the historic corridor. The proposal later evolves into the Buena Vista Project.



2017 - The newly remediated and renovated LA State Park Officially Opens

The redesigned Los Angeles State Historic Park officially opens, creating roughly 32 acres of public open space next to Chinatown and the River corridor. 4-acres remain inaccessible to the public.





2021 - City of LA begins environmental review of the Buena Vista Project

Los Angeles initiates environmental review of the Buena Vista Project, proposed on approximately 8.08 acres at 1251 N. Spring Street and 1030–1380 N. Broadway, immediately adjacent to LASHP. The Initial Study acknowledges former gas-station and auto-repair uses, oil and gas wells, methane-zone conditions, and the need for further hazardous-material investigation.

2025 - Draft EIR is released for public comment

The City releases the Draft Environmental Impact Report for the Buena Vista Project, proposing 986 residential units, retail, restaurants, and buildings reaching up to 26 stories. While the environmental review identifies several on- and off-site Recognized Environmental Conditions associated with the property's industrial past, heavy metal contamination is not explicitly identified as one. This omission raises questions given the documented lead and arsenic contamination on the adjacent former rail yard, which shares a history of industrial land use with the project site.



Present - The Future of Buena Vista is in your hands!

The Buena Vista proposal sits at the intersection of two very different trajectories: a former industrial landscape reclaimed through community organizing, remediation and public investment on one side, and a major private development proposed on another piece of the same historically industrialized River corridor. What happens here is on our hands.

References

Environmental Impact Reports, Planning Documents, and Historical Environmental Assessments

- California Office of Environmental Health Hazard Assessment. (2021). *CalEnviroScreen 4.0.* California Environmental Protection Agency. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
- City of Los Angeles, Department of City Planning. (2021). *Buena Vista Project Initial Study* (Figure 2, "North and South Parcel Building Locations," prepared by RCH Studios).
- City of Los Angeles, Department of City Planning. (2025). *Buena Vista Project Draft Environmental Impact Report: Appendix F, Hazardous Materials Repor*t (ENV-2016-4064-EIR; SCH No. 2021070577).
- Shaw Environmental & Infrastructure, Inc. (2002). *FINAL SITE CHARACTERIZATION SAMPLING RESULTS* [Surface-soil X-ray fluorescence (XRF) investigation data]. California Department of Toxic Substances Control, EnviroStor (Cornfield Site ID 19400013; Document ID 60365973). https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=19400013&doc_id=60365973
- Versar, Inc. (1999). *PHASE 1 ENVIRONMENTAL SITE ASSESSMENT*. Cornfield Railyard, Los Angeles, California: Site layout (Figure 2; Project No. 4022-001) [Site map]. California Department of Toxic Substances Control, EnviroStor (Cornfield Site ID 19400013; Document ID 60365969). https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=19400013&doc_id=60365969

Historical Aerial Photography

- Fairchild Aerial Surveys. (1934). *Los Angeles Cornfields, Southern Pacific River Station, and Solano Canyon* [Aerial photograph; Flight C-2917, Frame Z-80]. University of California, Santa Barbara Library, Geospatial Collection.
- Teledyne Geotronics. (1970, October 26). *Los Angeles Cornfields and surrounding neighborhoods* [Aerial photograph; Flight TG-2830, Frame 2-92]. University of California, Santa Barbara Library, Geospatial Collection.

Historical Photographs

- Los Angeles Public Library. (n.d.). *Fremont Gate entrance to Elysian Park* [Historical color postcard]. *Trees of the Elysian*. https://www.lapl.org/collections-resources/blogs/lapl/trees-elysian
- Los Angeles Public Library. (ca. 1941). *Figueroa Street Tunnel during construction of the Arroyo Seco Parkway through Elysian Park* [Photograph]. Herald Examiner Collection, Los Angeles Public Library Photo Collection.

Geospatial Data Sources

- California Department of Parks and Recreation. (2026). *California State Parks: Park boundaries* [GIS polygon dataset]. California State Parks GIS Data. https://www.parks.ca.gov/?page_id=29682
- City of Los Angeles. (n.d.). *Los Angeles River centerline* [GIS vector dataset]. Los Angeles GeoHub. https://geohub.lacity.org/search?layout=grid&q=LA%20river
- County of Los Angeles. (n.d.). *Master Plan of Highways* [GIS vector dataset]. Los Angeles County Open Data. https://data.lacounty.gov/datasets/master-plan-of-highways

Statistical Software and Analytical Packages

- Hijmans, R. J. (n.d.). *terra: Spatial data analysis* [R package]. Comprehensive R Archive Network. https://CRAN.R-project.org/package=terra
- Hollister, J. W., Shah, T., Robitaille, A. L., Beck, M. W., & Johnson, M. (n.d.). *elevatr: Access elevation data from various APIs* [R package]. Comprehensive R Archive Network. https://CRAN.R-project.org/package=elevatr
- Pebesma, E. (2018). *Simple features for R: Standardized support for spatial vector data*. The R Journal, 10(1), 439–446. https://doi.org/10.32614/RJ-2018-009

