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Trash to Treasure: Evaluating The Effect of CALReUSE on Home Market Values in California Low-Income* Zip Codes

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Introduction

Californians far and wide experience increasing rent burdens, with wages failing to keep up¹, ultimately producing a growing deficit of available and affordable housing and perpetuating cycles of insecurity and disenfranchisement of low-income individuals. As this problem continues to reproduce and worsen, there exist hundreds of thousands of acres of brownfield sites in California². These are sites that were originally home to industrial and commercial operations until their eventual accumulation of pollutants and contaminants resulted in underutilization and, in some cases, abandonment. In an attempt to symbiotically address these issues, the California Recycle Underutilized Sites Program, hereafter CALReUSE, was allocated 60 million dollars to finance "brownfield cleanup that promotes infill residential and mixed-use development, consistent with regional and local land use plans."³ This program was split into two parts: (1) Assessment and (2) Remediation and Development.

My research analyzes the impact of the later portion of the CALReUSE program, with particular focus on low-income communities. More specifically, I looked into the following research question: <u>How have median home values changed in low-income zip codes as a result</u> of CALReUSE remediation and development projects?

This paper will begin with contextualization for this research, beginning with further enumeration and elaboration of the California housing crisis, the ample presence of brownfields, and the disparate impact of these issues on low-income communities. Following this, I will explore in further detail the California Recycle Underutilized Sites program. This will include an overview of its conception, related legislation, and a synopsis. I will conclude this background examination by illuminating prior research with specific relation to brownfield remediation and

¹ Is the rent "too damn high"? Or are incomes too low? | Brookings

² how-many-brownfields-in-ca.pdf (cclr.org)

³ SB 86, 2007

its potential health and economic impacts on communities. Following this, I will propose that CALReUSE has an overall net positive impact on low-income communities and that this can be measured in terms of economic growth. I will then develop this argument into the following hypothesis: <u>As CALReUSE projects are implemented in low-income areas, the surrounding</u> <u>homes in the same zip code will increase in value</u>. Subsequently, an overview of my methodology to test this hypothesis will follow alongside important considerations. Finally, I will report my initial findings and provide an analysis, which will ultimately lead into an examination of the potential implications for policy and future research.

Significance

As briefly mentioned above, the affordable housing crisis in California is a growing issue, demanding urgent attention. According to data from the National Low Income Housing Coalition, there is a widening gap between the need for affordable housing and the number of available units. As shown in Figure 1, between 2007 and 2021 this deficit has grown in every major metropolitan area in California. While this figure is limited to metro areas relevant to my research, the NLIHC's data echoes this trend across other CA metros as well. Furthermore, it is demonstrated that cities with higher wealth disparities and higher population density reflect this need for affordable housing at a much greater rate.







Figure 2. Brownfields in California Source: MyGeoData Cloud Data Source: <u>https://www.openstreetmap.org/</u>

Figure 2 demonstrates that these factors are echoed in terms of the magnitude of brownfield presence, as seen in the Los Angeles, San Franciscio/Oakland, and San Diego metropolitan areas. This follows expectations, as brownfields occur more frequently in areas with a higher presence of industrial and commercial sites. The relationship between brownfields and population dense metropolitan areas is a direct result of the very nature of brownfields and what is classified as a brownfield.

"A brownfield is an abandoned, idled, or underused property where expansion or redevelopment is complicated by the presence or potential presence of contamination... Economic activities once thrived on these properties, but today, the availability of greenfields, concerns with liability and the time and cost of cleanup, and reluctance to invest in older urban areas make these sites difficult to redevelop"⁴

Some examples from my CALReUSE research include an oil field, land used by chemical companies, a parking lot and auto transmission site, a car repair facility, and a cannery. These properties contribute to neighborhood blight, which can "...decrease surrounding property values, erode the health of local housing markets, pose safety hazards, and reduce local tax revenue."⁵ Beyond these significant economic impacts, brownfields also pose a health risk to their surrounding communities. One study from the National Library of Medicine "...found significant positive associations between brownfield land proximity or density with at least one health relevant outcome, including poorer self-reported general health, increased mortality rates, increased birth defects...." among other concerning health issues. Ultimately concluding that there is a need for more research but there is significant possibility of negative health effects on communities surrounding brownfield sites.⁶

These economic and health impacts have an effect on the entire community that surrounds these sites. As a result, instances where certain communities are more likely to live

⁴ Brownfields FAQs - HUD Exchange

⁵ Mitigating Neighborhood Blight | HUD USER

⁶ Brownfield land and health: A systematic review of the literature - PMC (nih.gov)

near blighted properties or brownfield sites, become an issue of environmental justice. More specifically, this refers to the higher presence of brownfield sites in communities with higher populations of low-income families and racial and ethnic minorities.⁷

Background

In response to the dire need for attention in these issues, CALReUSE was chaptered and implemented by the legislation. CALReUSE is administered by the California Pollution Control Financing Authority (CPCFA), which is governed by the Office of the California State Treasurer. The CPCFA was allocated funding that established CALReUSE in 2000 with Senate Bill 1986.⁸ With this, the CALReUSE Assessment program was initiated, laying the groundwork for the Remediation and Development Program to come. In 2007, CALReUSE was expanded by SB 86, which amended the Housing and Emergency Shelter Trust Fund Act of 2006. The Housing and Emergency Shelter Trust Fund Act of 2006. The Housing and Emergency Shelter Trust Fund Act was authorized by the popular vote via Proposition 1C. This proposition set aside 2.85 billion dollars to "finance various existing housing programs, capital outlay related to infill development, brownfield cleanup that promotes infill development, and housing-related parks."⁹ Of that 2.85 billion, SB 86 set aside 60 million to expand CALReUSE to include the Remediation and Development program.

The Remediation and Development program is rather inline with what one would expect. It administers grants to go towards the clean-up of brownfield sites (remediation) and the construction of multi-unit housing (development). Each project was granted between \$25,000 and \$5 million dollars for both the remediation and development portions. Of all of the completed CALReUSE Remediation and Development projects (22 total) 14 were built near transit centers, with a select few providing additional transit-oriented resources to its occupants

⁷ <u>trta_report_2009.pdf (epa.gov)</u>

⁸ (Chapter 915, Statutes of 2000)

⁹ 2021.pdf (ca.gov)

like Sacramento's Township 9 which developed a mixed-use, transit-oriented, master-planned neighborhood, or San Jose's Fourth Street Apartments which is located "within two-blocks of light rail and all residents receive a free transit pass." In addition, 35 out of the 99 affordable housing units are allocated to individuals with developmental disabilities. Many other projects employed a similar model. For example, San Diego's 15th and Commercial project was once a concrete manufacturing facility and railyard. As of 2011, the land was repurposed into a 12-story multi-use development with units set aside as rent-free, a three-level child development center, four levels of transitional housing, four levels of permanent supportive and permanent affordable housing, rooftop space, and one level of underground parking.

Similar programs include the Environmental Protection Agency (EPA) Brownfields Program, Voluntary Cleanup Programs (VCPs) established by states and local governments, State Cleanup Funds, and Brownfield Redevelopment Tax Incentives to name a few. The EPA tracks these programs and their completed projects with the Cleanups In My Community Database.¹⁰

Previous research demonstrates that brownfield cleanup projects are an effective use of state resources and provide environmental, health, and economic benefits to the surrounding communities, depending on the type of development. New housing and developments to replace blighted properties tends to increase property values, community-well being and in some cases mortality rates. For example, one EPA report found that "cleanup averted 2.97 cancer incidents. Based on the five-year survival rate of 63%, the cleanup averted 1.87 statistical deaths."11

 ¹⁰ <u>Cleanups in My Community | US EPA</u>
¹¹ <u>trta_report_2009.pdf (epa.gov)</u>

Theory and Argument

As follows with the research above, I anticipated that the implementation of the CALReUSE remediation and development program would have a net positive impact on the communities surrounding its projects. Furthermore, to address the low-income connection I centered my argument around low-income communities. Due to the need for specificity in my measurement and the availability of data, I chose to focus on zip-codes as my unit of analysis. As a result, I arrived at the following argument: As CALReUSE projects are implemented in low-income areas, the surrounding homes in the same zip code will increase in value. The independent variable is the implementation of CALReUSE projects, as described in the CPCFA's Annual Reports to Legislature. The dependent variable is the change in median home values from the start of the project for each zip code to one-year post completion of the development portion of the project. The causal mechanism for this argument is that as brownfields are cleaned-up, there is a removal of the negative agent bringing down community blight and property values. In addition, introducing low-income housing has not been shown to lower nearby property values. Furthemore, since many of these projects include community centers, cafes, and other community-oriented designs, it is entirely feasible for these projects to not only remove pressures lowering property values, but to also directly increase the economic well-being of the surrounding area, and as a result raise home values in the same zip code as completed projects.

Research Design and Data

This study encompasses a mixed-method approach with respect to its research design. In short, I conducted a program analysis via a small-n comparative case study that utilizes time-series analysis. This is considered a program analysis in that its ultimate goal was to

evaluate the effectiveness of completed CALReUSE remediation and development projects, particularly with respect to the potential benefit to low-income housing areas. The specificity of this research question, coupled in consideration with the nature of this program, begat a research design that echoed in complexity.

As a program, CALReUSE has a relatively small scope with only 34 total projects. Out of these 34 projects, 11 fit the parameters of my research design and thus, anything beyond a small-n study was not feasible. In order to study the effect of this program, I utilized a time-series analysis that inspected the change in home values (my chosen indicator) from before the start of the program (t0) to after its completion (t1). However, solely examining the changes in home values in areas with CALReUSE projects is not exhaustive enough to control for confounding variables. This especially true when considering: (1) the small scope of the program and (2) the use of home values as an indicator from 2008-2016, which is not only the span of the complete collapse of the housing market, but also the range of my projects' start and completion dates. To control for this, I utilized a comparative case analysis and ran my time-series analysis in two groups of zip-codes, aptly named Group 1 and Group 2. Throughout this paper, I will continue to go into more detail on each of these elements of my approach.

As mentioned above, my research filtered out around two thirds of the original 34 projects that received funding. Only 22 projects had been completed as of the 2021-2022 CPCFA's Annual Report to Legislature, which was the most recent data available. My research sample was further widened to only include projects that were completed in low-income zip codes. In order to ensure this, I utilized the methodology of low-income determination from Section 3(b)2 of the Housing Act of 1937 and Housing and Urban Development (HUD) which establishes the limit at 80 percent of the area median income.¹² Because my projects spanned

¹² How are low-income and very low-income determined? - HUD Exchange

across the entire state and over many years, I opted to calculate a standard threshold to measure each project instead of attempting to weigh each project against their individual predetermined limits. I calculated this threshold by finding the California median income for each year from 2009 to 2013¹³, using data from the American Community Survey (ACS) 1-year estimates. I then took the average of these five figures to find the average median income during this span, which was \$70,939.60. Using the limit described above, I then found my 80 percent threshold of \$56,751.68. From this, I filtered out any zip codes that had an area median income over this value, using the ACS 2009-2013 5-year estimate to determine each zipcode's median income. This left me with 16 possible projects, 5 of which I had to remove due to missing data or inability to find matching zip codes to include in my comparative case analysis.

Once I determined the projects under CALReUSE that would be featured in my study, I conducted my time series analysis. Each of these projects was completed on its own timeline, so I established a method of standardizing my timeline in order to measure change. All data about my projects was sourced from the 2021-2022 CPCFA Annual Report to Legislature. Included in this report was a table, which included overview data reported from the individual projects. Encompassed within each projects' description were the completion dates for both the remediation and development phase. From this, I established a t0 and a t1. The values for my t0 came from one year prior to remediation completion and the values for my t1 came from one year post development completion. As a result, my dependent variable was measured by subtracting the home values of my t1s from the home values of my t0s. In addition, I set up a column in my dataset "n", which counted the number of years between t0 and t1 that way I could compare my findings by project and by year.

¹³ I selected these years to match the rest of my project as closely as possible. These years span a significant majority (9 out of 11) of the start years used in my study. Additionally, this span matches my use of data from the ACS 2009-2013 5-year estimate in other parts of my project, in those areas this was the only available data.

In order to control for confounding variables, I conducted this time-series analysis twice. In two different groups of zip codes. My first group of zip codes was selected by the filtering process described above, overall hinging on the availability of data and ensuring each project fit within the scope of my study. My Group 2 zip codes were selected on the basis of providing as close a match as possible to my Group 1 data. I started by finding the 10 zip codes with the closest starting home value in the same years as each of my Group 1 zip codes. I then used the EPA Dataset: Cleanups in My Communities (CIMC) to filter out zip codes that already contained completed brownfield remediation projects from my groups of potential matches. I then conducted a similar process by filtering out all potential zip codes with 2009 median incomes using the ACS. This left me with between 3-5 potential matches for most of my starting zip codes. I then found data on population density and the percentage of white residents for my starting zip codes and for each potential zip code. Using this data, in addition to determining the geographic location of each zip code, I selected the closest possible matches.

As previously stated, I used zip codes as the scale for my study. I selected this frame in order to look at the demographic and home-value breakdown on a scale that echoes neighborhood and community locals as closely as possible. This circles back to the specificity of my research design, which ultimately led me to select "low-income" zip codes with brownfield sites as my complete unit of analysis.

Due to the availability of data and the need for standardization across multiple sources, I felt zip codes gave the closest fit. While county, or even city, level may have been more accessible and lead to less limitations in my study, I felt that it would be less accurate specifically in regards to measuring the impact of low-income areas. For example, I removed Curtis Park, a Sacramento remediation project from the scope of my study because its zip code (94818) median income was well over my 80% limit. Only a few blocks over, the zip code for Township 9 and La Valentina (94814) had a median income less than half that. This illuminates the significant impact of scale on my analysis and demonstrates how my results could vary significantly had I selected a wider scale for my frame.

As mentioned throughout my description of my research design, I used a variety of data sources to conduct my research, each providing a different use for distinct phases of my analysis. Furthermore, I took into consideration both quantitative and qualitative measures throughout my study. To organize my data, I distinguished between three categories: (1) project data, (2) fixed-year zip code data, and (3) varied-year zip code data.

(1) Project data encompassed measures and influencing factors that were directly related to CALReUSE implementation, the majority of which was qualitative, and all of which was sourced from the CPCFA- more specifically their CALReUSE 2021-2022 Annual Report to the Legislature.¹⁴ This included my qualitative measures: zip code, project name, county, and key program features, in addition to my quantitative measures: "t0" and "t1", and "n".¹⁵

(2) Fixed-year zip code data encompassed a mix of qualitative and quantitative data. Qualitatively, I looked at geographic information (city, metropolitan area,¹⁶) and two binary measures that I used to filter my data. These included (1) whether or not a zip code met my designated low-income threshold and (2) whether or not a zip code had prior brownfield redevelopment projects, in any form.¹⁷

¹⁴ 2021.pdf (ca.gov)

 $^{^{15}}$ t0 = one year pre-remediation; t1= one year post-development; n = number of years between t0 and t1. ¹⁶ Metropolitan area was the least consistently defined across all sources out of all of my measures. I ended up aligning my boundaries to match those used in the data from the National Low Income Housing Coalition- which I ended up using to create a visual showing the need for affordable housing. Since this is background info that precedes my actual data, and because I wanted to create at least some semblance of standardization. I used those designations for the rest of my data as well. Unfortunately, the NLIHC data doesn't have a source, just an email to contact with questions so I'm not entirely sure where their classifications came from. It's pretty similar to the ACS though so I've decided to lean into my over-trusting tendencies and accept that it's logically sound enough.

¹⁷ My qualitative zip code data was sourced from the ACS, the ACS, and the EPA's CIMC dataset, respectively.

The quantitative zip code data without year variation that was employed in this study included the following: California median income values (used to designate low-income threshold), population size, and the percentage of white residents (used to select Group 2 zip codes). These measures were sourced from the ACS.

(3) Varied-year zip code data refers to the values that depended on both zip codes and year. These were the values that made up the bulk of my analysis, all of which were quantitative. This included: "g1t0janmedzvhi"¹⁸ "g1t1janmedzvhi"¹⁹ "g2t0janmedzvhi"²⁰ and "g2t1janmedzvhi"²¹ These values were sourced from the Zillow Home Value Index.²²

For this study, I measured my independent variable (implementation of CALReUSE projects in "low-income" zip codes) via a series of binary measurements that determined whether or not the project fit within my study. I then narrowed my analysis to only include zip codes with projects that met all the criteria (=1 for every binary measurement).

I measured my dependent variable (change-over-time in home values in "low-income" zip codes with and without CALReUSE projects) by comparing "g1t0janmedzvhi" to "g1t1janmedzvhi" and "g2t0janmedzvhi" to "g2t1janmedzvhi". This comparison yielded two new variables, "diff_g1"²³ and "diff_g2"²⁴. I compared these new sets of values to yield a new set of variables, "diff-diff".²⁵ Finally, I took into consideration that each project spanned a unique time-period and standardized my conclusions by dividing by the number of years between each comparison's t0 and t1, thus producing a final set of values under the variable "(diff-diff)/n".²⁶

¹⁸ Group 1 (G1) t0 January Median Zillow Home Value

¹⁹ G1 t1 January Median Zillow Home Value

²⁰ G2 t0 January Median Zillow Home Value

²¹ G2 t1 January Median Zillow Home Value

²² <u>https://www.zillow.com/research/data/</u>

 $^{^{23}}$ diff_g1 = g1t1janmedzvhi - g1t0janmedzvhi

²⁴ diff_g2 = g2t1janmedzvhi - g2t0janmedzvhi

 $^{^{25}}$ diff-diff = diff_g1 - diff_g2

²⁶ (diff-diff)/n = (diff_g1 - diff div_g2)/ n OR (diff-diff)/n = (dif_g1/n) - (diff_g2/n) [same thing]



Figure 2. Group 1 January Median Home Values from t0 to t1 Data Source: <u>https://www.zillow.com/research/data/</u>



Figure 3. Group 2 January Median Home Values from t0 to t1 Data Source: <u>https://www.zillow.com/research/data/</u> Figures 3 and 4 above depict "diff_g1" and "diff_g2", respectively. These are not yet standardized by year, nor do they control for confounding variables individually. As a result, there are no clear trends to be shown across t0 to t1 for each zip code. The majority of the difference seen between the two bars for each zip code is a reflection of the time period of the project. For example, the first bars for each graph (G1: 92101, G2: 93933) reflect the difference from 2008 to 2010, while the last bars for each graph (G1: 94608, G2: 92058) reflect the difference from 2012 to 2016. Therefore, comparing 92101 to 94608 and 93933 to 92058 would fail to provide any form of significant correlation or analysis. One reason for this is that there were two years more between the comparison in 94608 (& 92058) than between the comparison in 92101 (& 93933). In addition, 92101/93933's starting year of 2008 experienced plummeting home values nation-wide whereas 94608/92058's starting year of 2012 experienced rebounding home values nation-wide.

Instead, by comparing the changes in 92101 and 94608 to 93933 and 92058 (respectively), it can be observed that 92101 decreases less than 93933 and that 94608 increases more than 92058. Both of which observe the same trend and this trend is supported by prior research on brownfield redevelopment. This demonstrates the reliability of this study, at the very least as much as is possible in a study with this small of a sample size and a 10-week time limitation.

Ideally, this study would be expanded to include all 17 possible completed remediation and development projects under CALReUSE, with more time to address data limitations and time limitations in finding accurate matches between Group 2 and Group 1. Furthermore, this study could also be expanded to include more remediation and development projects outside of CALReUSE to confirm findings and have a more standardized method of evaluating clean-up initiatives.

In a similar vein, the complex design of this study establishes significant evidence toward a relatively high degree of validity, at least to the extent possible within the external limitations of this project. Without these limitations, particularly with respect to the study's 10-week timeframe, this analysis could be more robust with the implementation of either an index or a sortable table as a matching system for selecting the group 2 zip codes. I would recommend utilizing the measures used in this study (same starting home value, income as a binary threshold, population density, percentage of white vs. non-white residents, and geographic location) in addition to some or all of the following measure: the percentage of owned vs. rent properties, the average rent burden, average wage / median income (as a continuous variable).

In addition, for the majority of my matching cases I had to sacrifice one measure for another. For example, even my best matches had a similar population size and percentage of white residents, but were in very different parts of California. This is because each of my matching cases was limited to a pool of the 10 closest starting home values. As a result, starting home value became my most accurate indicator and I had extremely limited options, especially after filtering out zip codes above my income threshold and zip codes with previous clean-up projects. If I were to repeat this study with the goal of increasing its validity, I would widen the pool of possible match zip codes to fit within the following inequality:

"g1 t0 janmedzvhi" - $10/15k \le$ "g2 t0 janmedzvhi" \le "g1 t0 janmedzvhi" + 10/15kIn more simple terms, I would widen the pool of possible zip codes to be within \$20,000/30,000 of the Group 1 starting home value. This wider range would also allow for the other indicators listed above to have a more significant weight.

Analysis

After conducting my study, I have determined that my hypothesis was mostly supported. Eight out of eleven zip codes experienced an increase that can be attributed to the CALReUSE Remediation and Development program. Four out of eleven of these projects experienced a smaller decrease from t0 to t1 in Group 1 projects with CALReUSE than in Group 2 projects without CALReUSE. Additionally, four out of eleven of these projects experienced a larger increase from t0 to t1 in Group 1 projects with CALReUSE than in Group 2 projects without CALReUSE. These findings can be observed by comparing the bar charts in Figures 3 and 4, once again as described above.

In the 3 zip codes that did not experience an increase that can be attributed to the program, it is likely that the data limitations described above played a significant role that could have overcome any positive impact to be observed from this program.

The figure below demonstrates the distribution of the change over time, between each group or stated differently, the change that can be attributed to CALReUSE. The histograms' values on the x-axis are somewhat arbitrary, rather these bucket widths were selected to best demonstrate that there were 3 out of 11 projects with negative growth in their respective zip codes. Moreover, this shows the distribution of the change after standardization. In other words, this data is already adjusted to show the amount of change per year of the program.

This further illuminates the spread of the growth, and the outliers that experienced a growth of over 30,000 per year. I theorize that this growth has much more to do with the economic status of the cities that house these zip codes, and their likely recent booms in interest. These zip codes that experience this significant change are neighboring one another, reaffirming this theory.



Figure 5. Amount of Negative and Positive Changes in Home Values as a result of CALReUSE Implementation Data Source: https://www.zillow.com/research/data

Conclusions and Implications

In conclusion, the research conducted on the effect of CALReUSE on home market values in low-income zip codes indicates a predominantly positive impact. Through a rigorous analysis of CALReUSE projects and their surrounding communities, it was found that the implementation of remediation and development initiatives led to an increase in median home values in most cases. This suggests that CALReUSE has contributed to economic growth and revitalization in low-income areas affected by brownfield sites. Despite limitations in sample size and data availability, the study provides valuable insights into the potential benefits of targeted brownfield cleanup programs for disadvantaged communities. Further research and expansion of similar initiatives could help validate these findings and inform future strategies for sustainable community development and brownfield remediation efforts.

The CALReUSE program was only granted funding on a one-time basis, and due to its nature as a grant-based program as opposed to a revolving-loan fund, there was no feasibility for recycling funds and continuing past the complete expenditure of the original round of funding. As a result, the program is oversubscribed and unable to continue to benefit California low-income communities by implementing new projects. Therefore, these findings have significant implications for policy-makers, highlighting the importance of continued support for programs like CALReUSE to address housing affordability and environmental justice issues in California. Ultimately, this research suggests a need for the revitalization of the CALReUSE program with a new round of funding.

Works Cited

Brownfields FAQs - Hud Exchange. (n.d.-a).

https://www.hudexchange.info/resource/3180/brownfields-frequently-asked-questions/

CALReUSE program - State treasurer's Office - ca.gov. (2021).

https://www.treasurer.ca.gov/cpcfa/calreuse/annualreport/2021.pdf

Committee on Budget and Fiscal Review. (2007, August 24). Senate Bill No. 86 CHAPTER 179. SB 86 Senate bill - chaptered.

http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0051-0100/sb_86_bill_20070824_chapter ed.html

Environmental Protection Agency. (n.d.). *Cleanups in My Community*. EPA. <u>https://www.epa.gov/cleanups/cleanups-my-community</u>

Housing Data. Zillow. (2024, February 1). https://www.zillow.com/research/data/

How are low-income and very low-income determined? - hud exchange. (n.d.-b). https://www.hudexchange.info/faqs/crosscutting-requirements/section-3/general/how-are-l ow-income-and-very-low-income-determined/

How many brownfields does California have. (n.d.-c).

https://www.cclr.org/wp-content/uploads/2021/06/how-many-brownfields-in-ca.pdf

Mitigating neighborhood blight. Mitigating Neighborhood Blight | HUD USER. (n.d.). <u>https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-012218.html</u> Office of the chief clerk. Archives | Office of the Chief Clerk. (2000).

https://clerk.assembly.ca.gov/archive-list?archive_type=statutes

Schuetz, J., Tracy Hadden Loh, I. R., & Tracy Hadden Loh, H. L. (2022, March 9). *Is the rent "too damn high"? or are incomes too low?* Brookings.

https://www.brookings.edu/articles/is-the-rent-too-damn-high-or-are-incomes-too-low/

Verifying the performance of brownfields. (n.d.-d).

https://www.epa.gov/sites/default/files/2015-09/documents/trta_report_2009.pdf

Wang, W., Dack, S., Mudway, I., Walder, H., Davies, B., Kamanyire, R., & Fecht, D. (2023, August 4). *Brownfield Land and Health: A systematic review of the literature*. PloS one. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10403084/