

UC Berkeley

Cal-in-Sac Undergraduate Research Products

Title

The Clash of the Housing Crisis and Environmental Concerns: How Central Valley Metros Can Address Both

Permalink

<https://escholarship.org/uc/item/2zb3m1s8>

Author

Gonzalez, D'Angelo

Publication Date

2023-11-08

The Clash of the Housing Crisis and Environmental Concerns: How Central Valley Metros Can Address Both

D'Angelo Gonzalez

Background

The impacts of California's housing crisis continue to affect the state, with a [shortage of nearly 1 million affordable units](#) for low-income households. The California Department of Housing and Community Development (HCD) estimates 312,500 units must be built every year to meet demand. The sixth cycle Regional Housing Needs Assessment (RHNA) has estimated [2.5 million homes need to be built by 2030](#) to begin closing the housing and demand gap, 40% of which are required to be low-income units.

New Permitted Units in California by Year and Structure Type

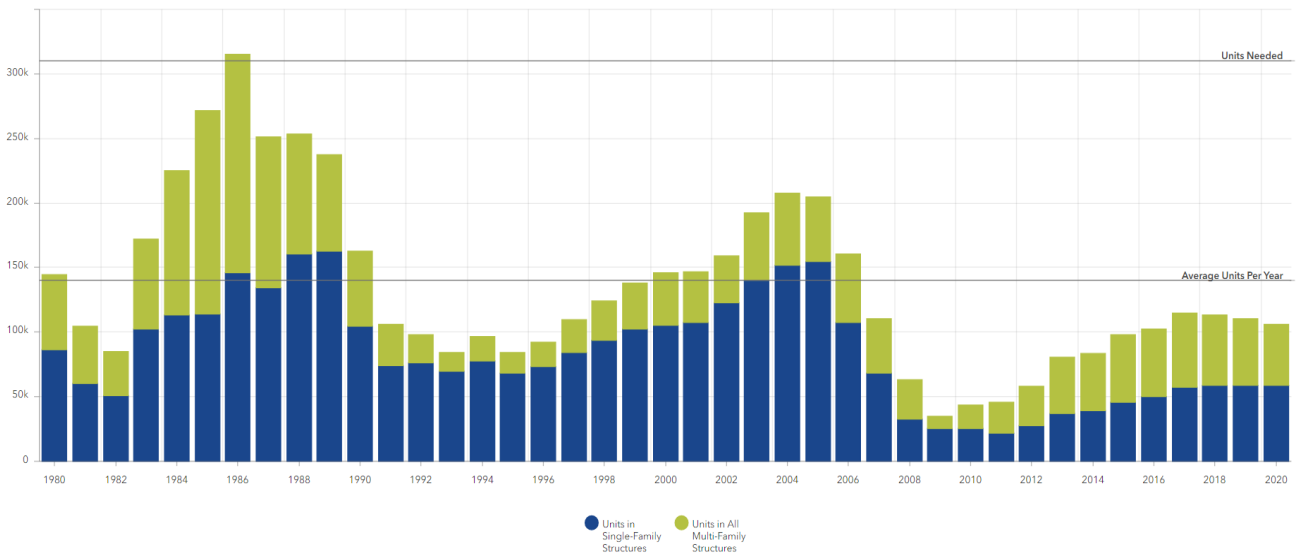


Figure 1: Housing Permits Issued Against Estimated Need, 1980-2020¹

With California only meeting the housing production goal once since 1980, the state must take drastic measures. Annual housing permit issue rates across the West have [declined since 2005](#). Additionally, a majority of new permits issued since 1980 [have been single-family units](#).

¹ This figure is from a chart published alongside the California Department of Housing and Community Development's [2022 statewide housing plan](#). The full interactive chart [can be found here](#).

Source: New Residential Construction
Annual Rate for Housing Units Authorized in Permit-Issuing Places: West
Jan-2000 to Dec-2023

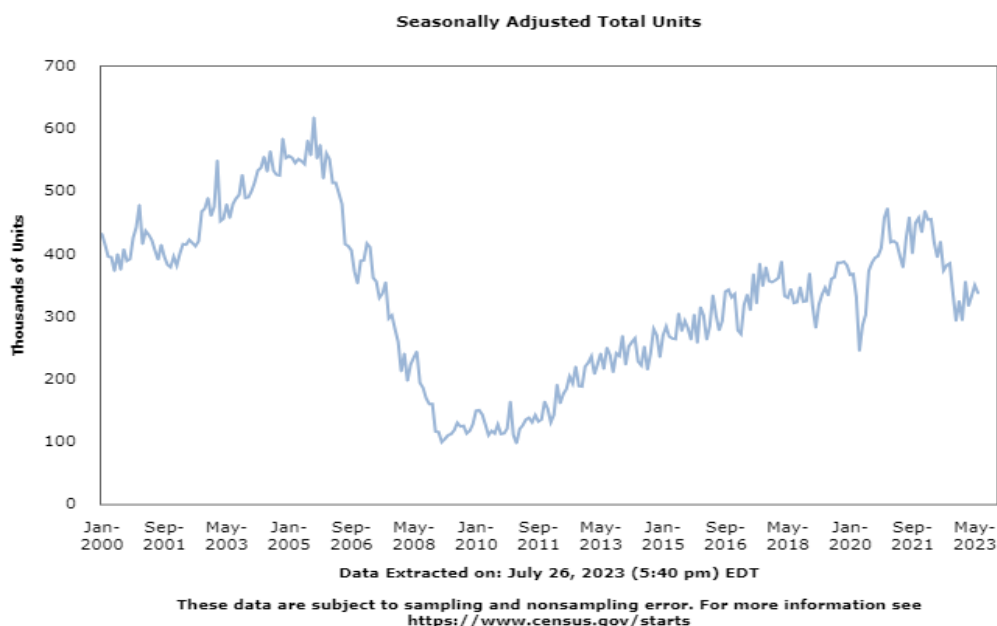


Figure 2: Annual Rate for Total Housing Units Authorized in the West, 2000-2023²

However, California’s diversity necessitates geographic-specific plans to meet the RHNA’s goal. The Central Valley is one of the fastest growing regions in the state, home to over 7.6 million Californians as of 2020.³ As the region continues to grow, the state must take expansive measures to increase access to affordable housing.

Obstacles to Housing Expansion

California’s average production rate of 102,000 units per year is a result of multiple factors limiting new development. The most pressing are [local opposition](#), [zoning legislation](#), and insufficient resources to support new development. Local opposition has been observed through [lawsuits against the enforcement of housing laws](#) and [attempts to circumvent housing requirements](#). Furthermore, legislation such as the California Environmental Quality Act (CEQA) [have been used by local governments and interests to stifle new development](#).

The Central Valley faces additional barriers to housing expansion. The region has large swaths of undeveloped land. However, [much of this land is irrigated farmland](#) and environmentally

² Data obtained from [United States Census Bureau](#).

³ This figure was obtained by adding the population sizes of all counties within or partially inside the Central Valley. The true population size may vary across different sources. This figure was obtained from [data published by the United States Census Bureau](#).

protected areas.⁴ Increases in greenfield development would accelerate the loss of these lands, harming the region’s agricultural productivity and environment.

Furthermore, [Central Valley counties use land inefficiently](#). Despite the region having a population density of about 422 people per square mile⁵, nearly all counties in the Central Valley are below the statewide average of 241 people per square mile. The region’s high population density is due to five outlier counties with substantial population centers skewing results. Sacramento, Placer, San Joaquin, Solano, and Stanislaus the only counties above the statewide average population density, with Sacramento County having a substantial lead.

County Name	2020 Population	Total Area (Square Miles)	Population Density (People per Square Mile)
California	39,538,245	163,696	241
Central Valley⁶	7,664,323	18,000	425
Butte	211,631	1,677	126
Colusa	21,837	1,156	18
Fresno	1,008,650	6,011	167
Glenn	28,915	1,327	21
Kern	909,244	8,163	111
Kings	152,488	1,392	109
Madera	156,259	2,153	72
Merced	281,202	1,979	142
Placer	404,740	1,502	269
Sacramento	1,585,046	994	1,594
San Joaquin	779,227	1,426	546
Shasta	182,152	3,847	47
Solano	453,490	906	500
Stanislaus	552,880	1,515	364
Sutter	99,631	602	165
Tehama	65,831	2,962	22
Tulare	473,117	4,839	97
Yolo	216,405	1,024	211
Yuba	81,578	644	126

Table 1: 2020 Population Totals, Land Area, and Density by County⁷

⁴ An interactive map of land in the Central Valley for agricultural usage has been created by the California Landscape Conservation Cooperative and [can be found on Data Basin](#).

⁵ Some sources [cite that the land area of the Central Valley is 20,000 square miles](#). This estimate would put the Central Valley’s population density at 383 people per square mile.

⁶ Central Valley figures may not be accurate due to many counties having land and population area outside of the region, such as Kern County. The land area estimate used in the table [can be found here](#).

⁷ Data obtained from [United States Census Bureau](#).

As a result, many Central Valley communities are not densely populated and more likely to be car-dependent than other population centers. Greenfield development would worsen the region’s car dependency issues and cause further environmental and agricultural deterioration.

Climate change places additional obstacles to housing expansion. The [increasing severity of climate-induced events](#) pose threats to [communities at risk of wildfire](#) or [flood damage](#).⁸ Extensive droughts further [threaten the region’s environmental stability and water supply](#). These climate-related dangers greatly trouble less urbanized areas and discourage new development in these regions.

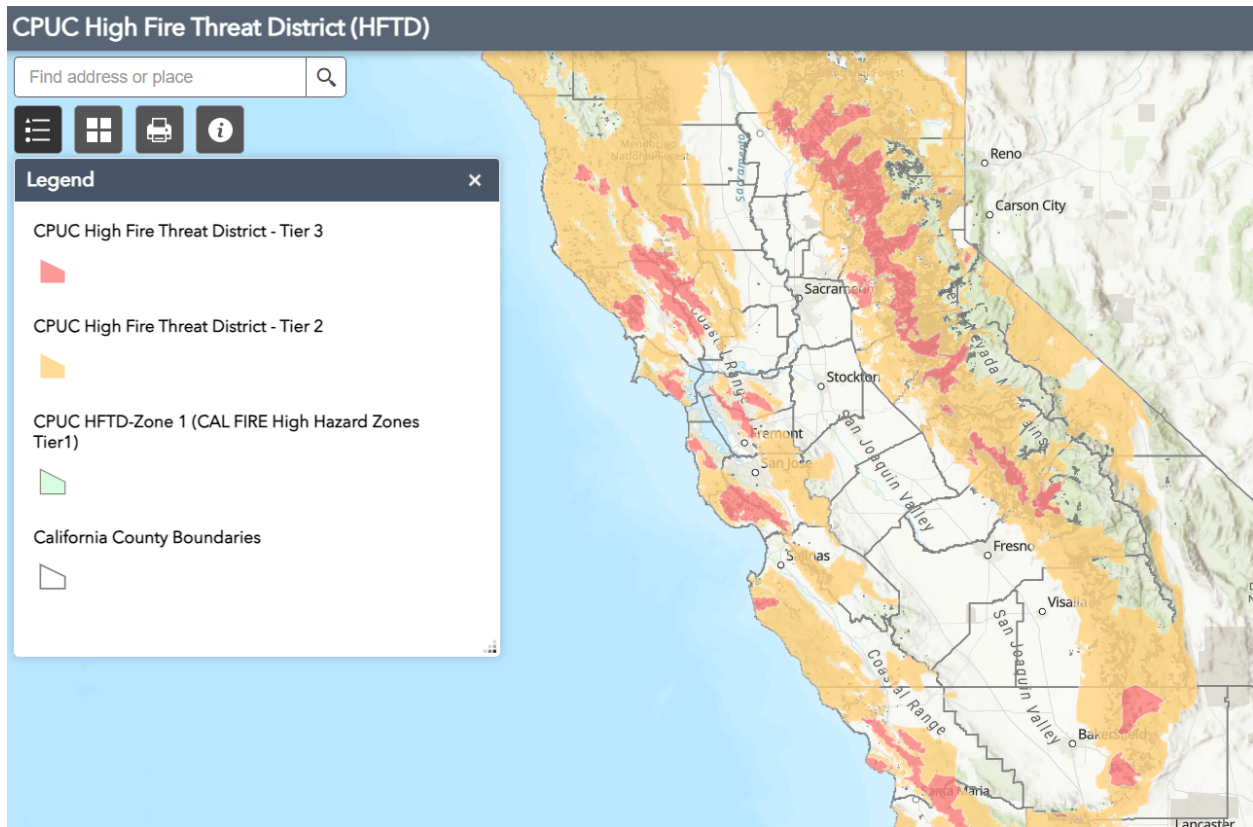


Figure 3: High Fire Threat Areas in Central California⁹

Policy Recommendations

The state should focus on three objectives to expand access to affordable housing in the Central Valley. Although the region has much undeveloped land for expansion, the state should focus its efforts to build new housing in metropolitan areas and limit greenfield development. Metropolitan areas have existing infrastructure that can be reworked to support a larger

⁸ The California Department of Water and Resources has created an interactive map of California’s 100-year floodplains, [found here](#). Much of the valley floor is considered high flood risk.

⁹ Image obtained from the California Public Utilities Commission’s interactive High Fire Threat District map, [found here](#).

population. Additionally, urbanized regions are less vulnerable to direct damage from climate-related events, such as wildfires, than less developed areas (Figure 4).

Secondly, programs to expedite the permit process for infill development are valuable to meeting the RHNA's goals. Infill sites [are parcels that are developed for urban uses or adjacent to them](#). Utilizing infill sites ensures minimal losses of environment and farmland, taking advantage of existing infrastructure and utilities. [AB 2011](#) and [SB 6](#) are bills the legislature have already [passed to facilitate development](#).

Thirdly, cities in metropolitan areas should consider adopting inclusionary zoning ordinances to increase the supply of low-income housing units. Inclusionary zoning ordinances have already been enacted in California cities, [such as Napa](#), to success. Similarly, under the California Housing Accountability Act (CHAA), cities without compliant housing plans [must approve new housing projects that contain at least 20% low-income units](#). However, this only achieves half of the RHNA's requirement of 40% low-income units. Raising the minimum threshold to gain streamlined permits would incentivize developers to introduce more low-income units in housing projects, increasing the supply of affordable units in the region.