



3

Sustainability, Equity & Climate Resilience



**PLAN
MID-CITY**
Communities Plan Update

3.1. Sustainability, Equity and Climate Resilience

OVERVIEW

This section describes major thematic areas related to sustainability, equity and climate resilience at the community level. Sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” through making better use of resources, such as water, energy, waste, and infrastructure; designing compact and complete neighborhoods; reducing exposure to toxic chemicals and pollutions; improving air, water and food quality; and enhancing people’s access to affordable homes, jobs and public spaces.

However, the impact of climate change, such as exposure to extreme heat, intense rainstorms, flooding and wildfires, is already being felt in people’s daily lives. The effect of these impacts varies significantly across our city, especially due to the deferred infrastructure maintenance and investment, with some communities experiencing the effects more strongly, with fewer resources to prepare and respond.

The historic inequities driven by past government policies still linger in Mid-City neighborhoods. Today, over half of Mid-City is classified as Environmental Justice Communities, which describes areas that are most impacted and negatively affected by environmental burdens and associated health risks.¹

Socially vulnerable populations face disproportionate and unequal risk to climate change and environmental hazards such as particulate air pollution, extreme heat and flooding.

A resilient community is less vulnerable to extreme events and minimizes exposure to environmental hazards. By working together to make our neighborhoods clean, safe and healthy, we can plan for resilient communities.

POLICY FRAMEWORKS

The City of San Diego General Plan, Climate Action Plan and Climate Resilient SD provide the policy frameworks for how the city will grow and develop into a City of Villages while reducing citywide emissions and preparing and responding to climate change hazards. In addition, the San Diego Regional Plan identifies opportunities for a faster, fairer and cleaner transportation system to help reduce the region’s greenhouse gas (GHG) emissions.²

1 https://www.sandiego.gov/sites/default/files/2024-07/general-plan_11_environmental-justice_july-2024_0.pdf
2 <https://www.sandag.org/-/media/SANDAG/Documents/PDF/regional-plan/2021-regional-plan/final-2021-regional-plan/final-2021-regional-plan-flipbook.pdf>

BASELINE

In 2019, On-Road Transportation was responsible for 55% of city’s GHG emissions (Figure 3-1). The Mid-City household, on average, used 18% less energy and 10% less water while producing 17% fewer GHG emissions compared to the average household in City of San Diego (Table 3-1).

In terms of vehicle miles traveled (average driving distance), the resident of Mid-City drove 22% fewer miles for their daily trips, while employees drove 27% fewer miles to reach their destinations compared to the San Diego regional average (Table 3-2).

Due to its central transit-rich location with a mix of housing types, average Mid-City household pay 30% less in auto and utility costs compared to the regional average.

Table 3-1 Average Household Consumption & Emission

Category	Mid-City	City of San Diego
Energy Use (BTUs)	38,960,000	47,506,000
Water Use (Gallons)	71,732	79,312
GHG Emissions* (MTCO2e)	35	42

Source: Urban Footprint Analysis (Energy/Water) & *CoolClimate Network (GHG Emissions)

Table 3-2 Average Daily VMT, Auto & Utility Cost

Category	Mid-City	San Diego Region
VMT per Resident (miles)	14.7	18.9
VMT per Employee (miles)	13.8	18.9
Annual Auto & Utility Costs	\$17,141	\$24,346

Source: SANDAG SB743 VMT Maps & Urban Footprint Analysis (Auto/Utility Costs)

3.2. Priority Growth Areas

San Diego Regional Plan and the City’s General Plan, Climate Action Plan and Land Development Code prioritize future growth in location-efficient places due to the economic, social and environmental benefits. Figure 3-2 highlights these areas:

- Sustainable Development Area - allows for utilization of local housing incentive programs if the development is accessible to a major public transit stop up to a 1-mile walk.
- Smart Growth Area - these areas are identified through Regional Comprehensive Plan development process to help prioritize regional transportation investments and eligibility for local smart growth incentive funds.
- Transit Priority Area - allows for state-mandated housing incentive programs to be used within a half-mile radius (“as the crow flies”) of an existing or planned major public transit stop.

These location-efficient areas align with the City’s General Plan and Climate Action Plan goals to expand housing and jobs near transit so more people can bike, walk, roll or take transit to work, home, shopping and other places of enjoyment within their community.

Figure 3-1 City of San Diego GHG Emissions (2019)

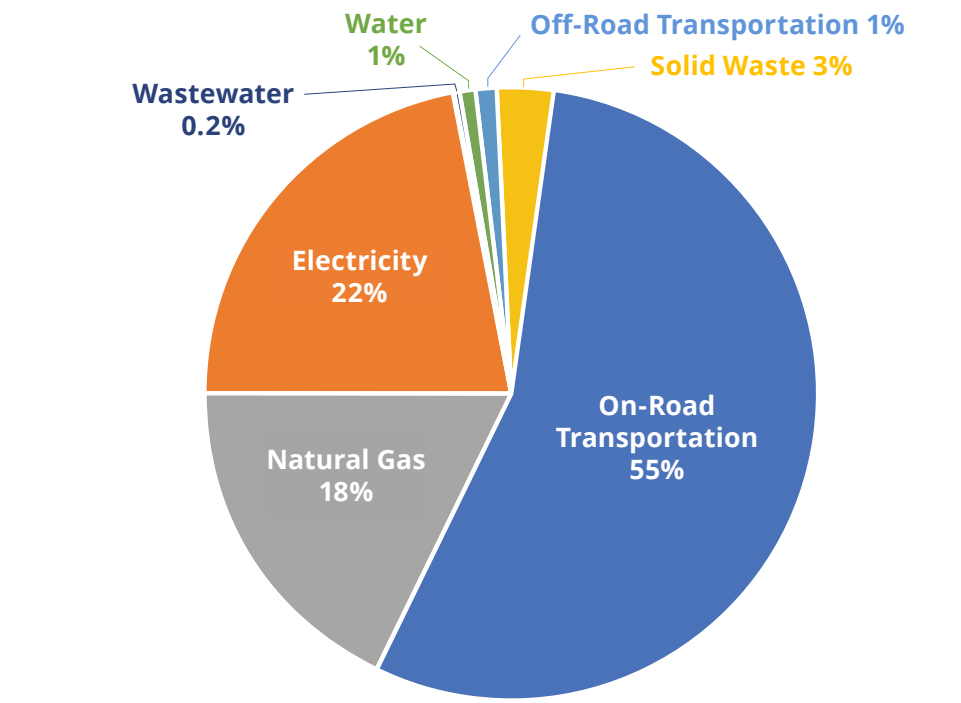
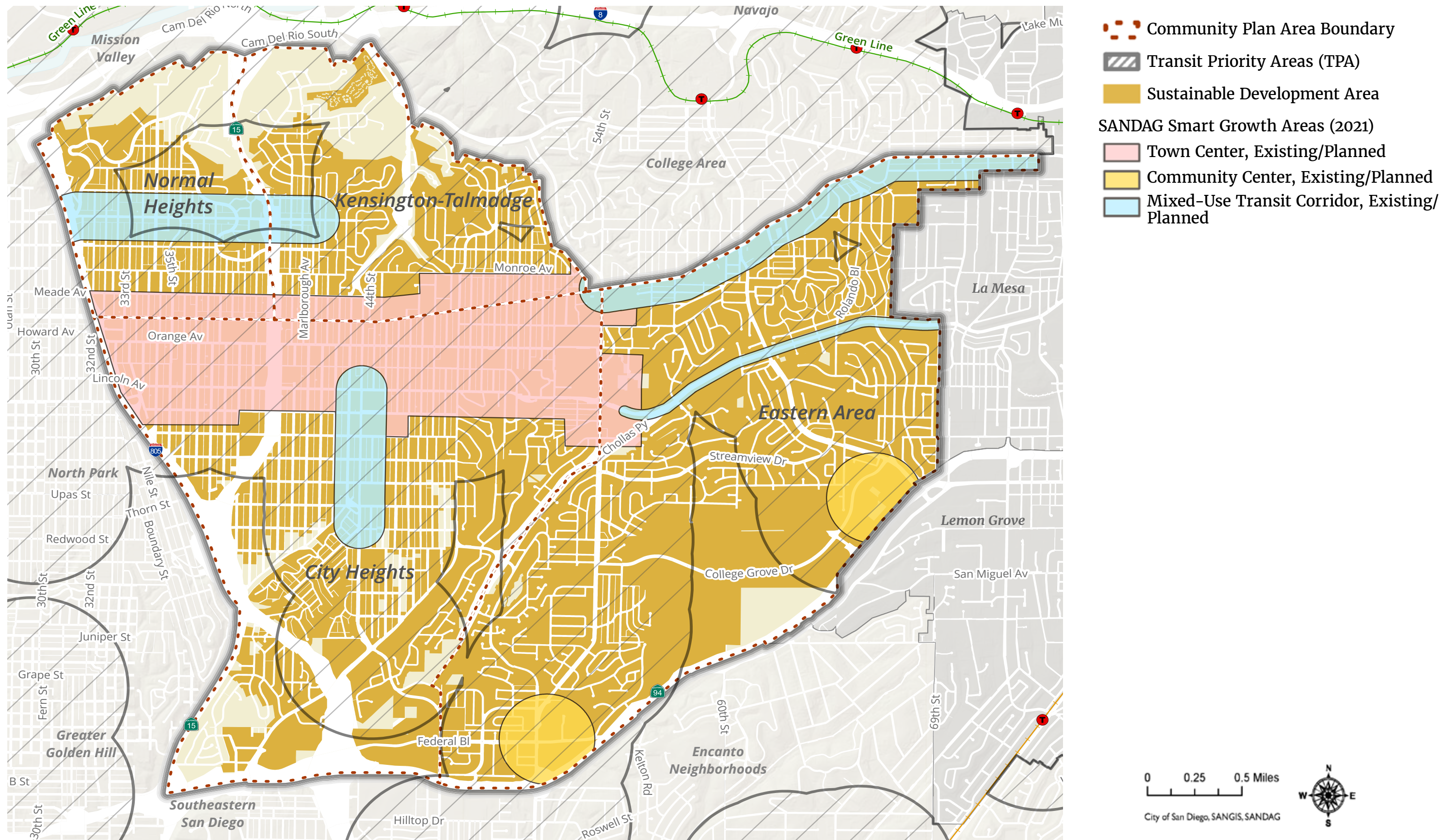


Figure 3-2 Sustainable Development, Smart Growth and Transit Priority Areas



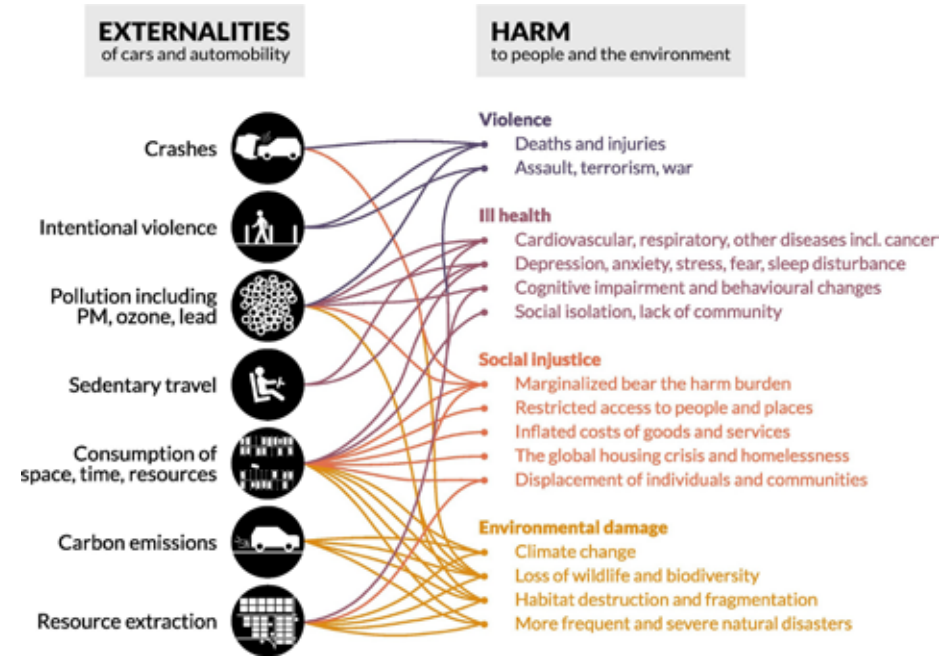
3.3. Mobility and Land Use

OVERVIEW

On-road transportation is the single largest source of GHG emissions in San Diego region and more than two-thirds of smog-forming emissions in San Diego County are generated from mobile sources.^{1,2} Air pollutants emitted from cars, diesel-powered trucks, buses and other heavy-duty equipment include oxides of nitrogen (NOx) as well as diesel particulate matter (PM).

There are additional consequences of automobility. The infographic illustrates externalities of cars and automobility and how they harm people and the environment. Since their invention, cars and automobility have killed 60-80 million people and injured at least 2 billion. Currently, 1 in 34 deaths are caused by automobility and it has exacerbated social inequities and damaged ecosystems.³

Encouraging compact and complete neighborhoods via strategic land use planning is critical to reducing citywide vehicle emissions that result from vehicular travel. When people live near where they work and play, with safe, convenient, and enjoyable options for reaching their destination as pedestrians or by biking, or using transit, there is less overall travel by car in the city while reducing our reliance on costly personal vehicles.



1 <https://www.sandiegocounty.gov/content/dam/sdc/sustainability/docs/final2024cap/Final2024CAP.pdf>

2 <https://www.sdapcd.org/content/sdapcd/compliance/compliance-requirements/mobile-source-program.html#:~:text=Over%2070%25%20of%20the%20total,and%20other%20heavy%20duty%20equipment.>

3 Patrick Miner, Barbara M. Smith, Anant Jani, Geraldine McNeill, Alfred Gathorne-Hardy, Car harm: A global review of automobility's harm to people and the environment, Journal of Transport Geography, Volume 115, 2024, 103817, ISSN 0966-6923, <https://doi.org/10.1016/j.jtrangeo.2024.103817>.

4 <https://www.walkscore.com/methodology.shtml>

WALK, BIKE AND TRANSIT SCORES

Walk Score measures the walkability of a neighborhood, Transit Score measures access to public transit, and Bike Score measures whether a location is good for biking.⁴ Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities, pedestrian friendliness and road metrics such as block length and intersection density. Figures 3-3 through 3-5 illustrates the Walk Score, Transit Score and Bike Score of the Mid-City planning area.

Table 3-3 compares the different categories of Walk, Transit and Bike Scores between Mid-City and City of San Diego. Around 58% of Mid-City is considered Very Walkable or Somewhat Walkable compared to 17% in City of San Diego. For Transit Score, 32% of Mid-City has Good Transit compared to 10 percent for City of San Diego. Finally, 35% of Mid-City is considered to be Very Bikeable or Bikeable compared to 22% in City of San Diego. These metrics support and validate the designations of priority growth areas identified in Figure 3-2. Overall, neighborhoods in Mid-City have higher Walk, Bike and Transit Scores compared to City of San Diego.

Table 3-3 Walk, Transit and Bike Scores

Walk Score	Mid-City	City of San Diego
Very Walkable	27%	6%
Somewhat Walkable	31%	11%
Car-Dependent	42%	83%

Transit Score	Mid-City	City of San Diego
Good Transit	32%	10%
Some Transit	68%	40%
Minimal Transit	0%	50%

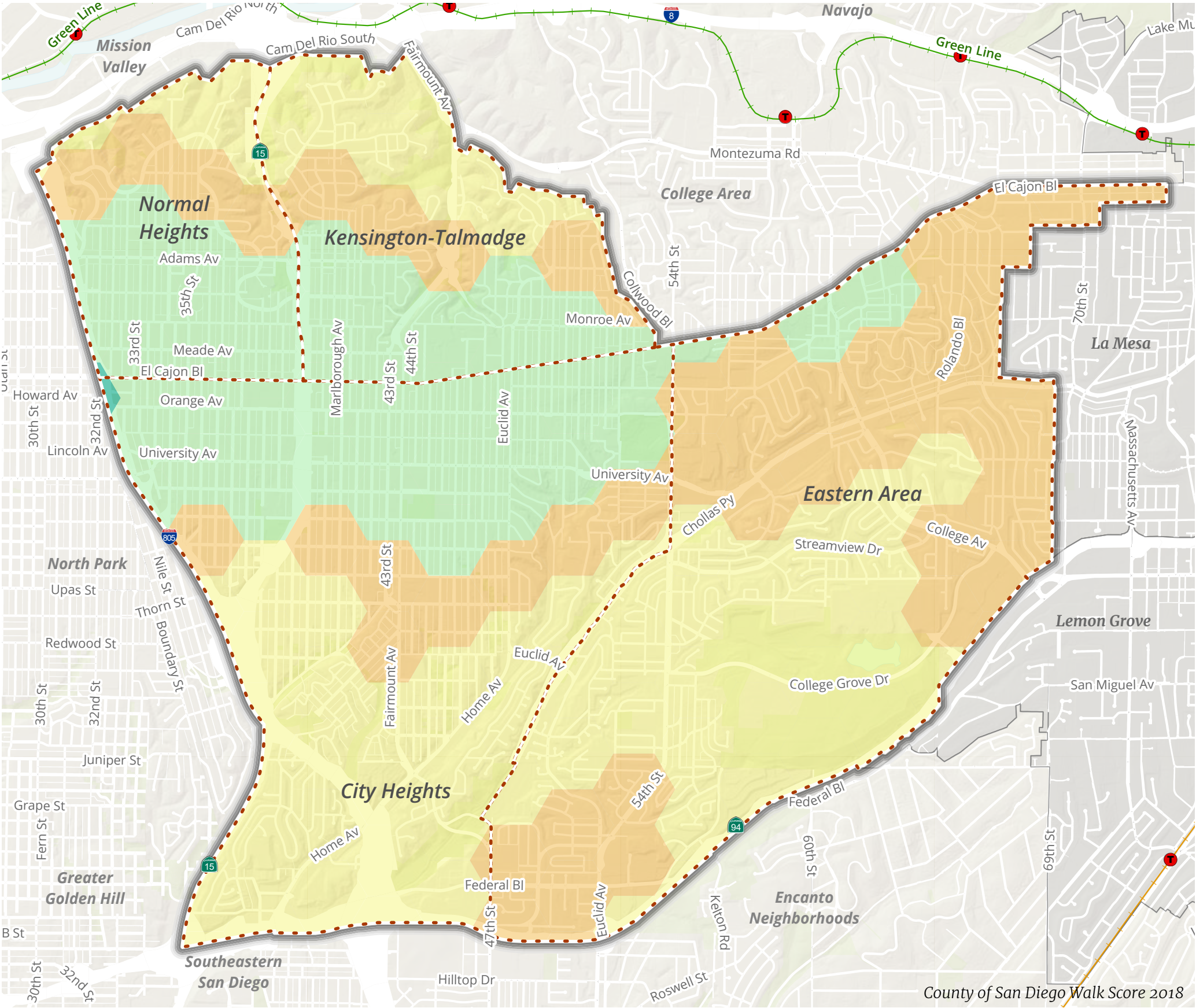
Bike Score	Mid-City	City of San Diego
Very Bikeable	1%	3%
Bikeable	34%	19%
Somewhat Bikeable	65%	78%

Source: County of San Diego 2018



This infographic by WalkBoston illustrates the health benefits of walking 30 minutes a day. Regular physical activities, such as walking, lowers the risk of cancer, heart disease, diabetes, stroke, arthritis and osteoporosis, help keep weight in check and boosts your mood.

Figure 3-3 Mid-City Walk Score



Walk Score

- Walker's Paradise | Daily errands do not require a car
- Very Walkable | Most errands can be accomplished on foot
- Somewhat Walkable | Some errands can be accomplished on foot
- Car-Dependent | Most errands require a car

Communities	Score
Normal Heights	
Very Walkable	57%
Somewhat Walkable	29%
Car Dependent	14%
Kensington-Talmadge	
Very Walkable	38%
Somewhat Walkable	24%
Car Dependent	38%
City Heights	
Very Walkable	33%
Somewhat Walkable	22%
Car Dependent	45%
Eastern Area	
Very Walkable	3%
Somewhat Walkable	45%
Car Dependent	52%

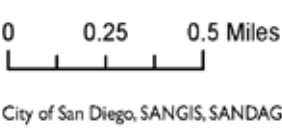
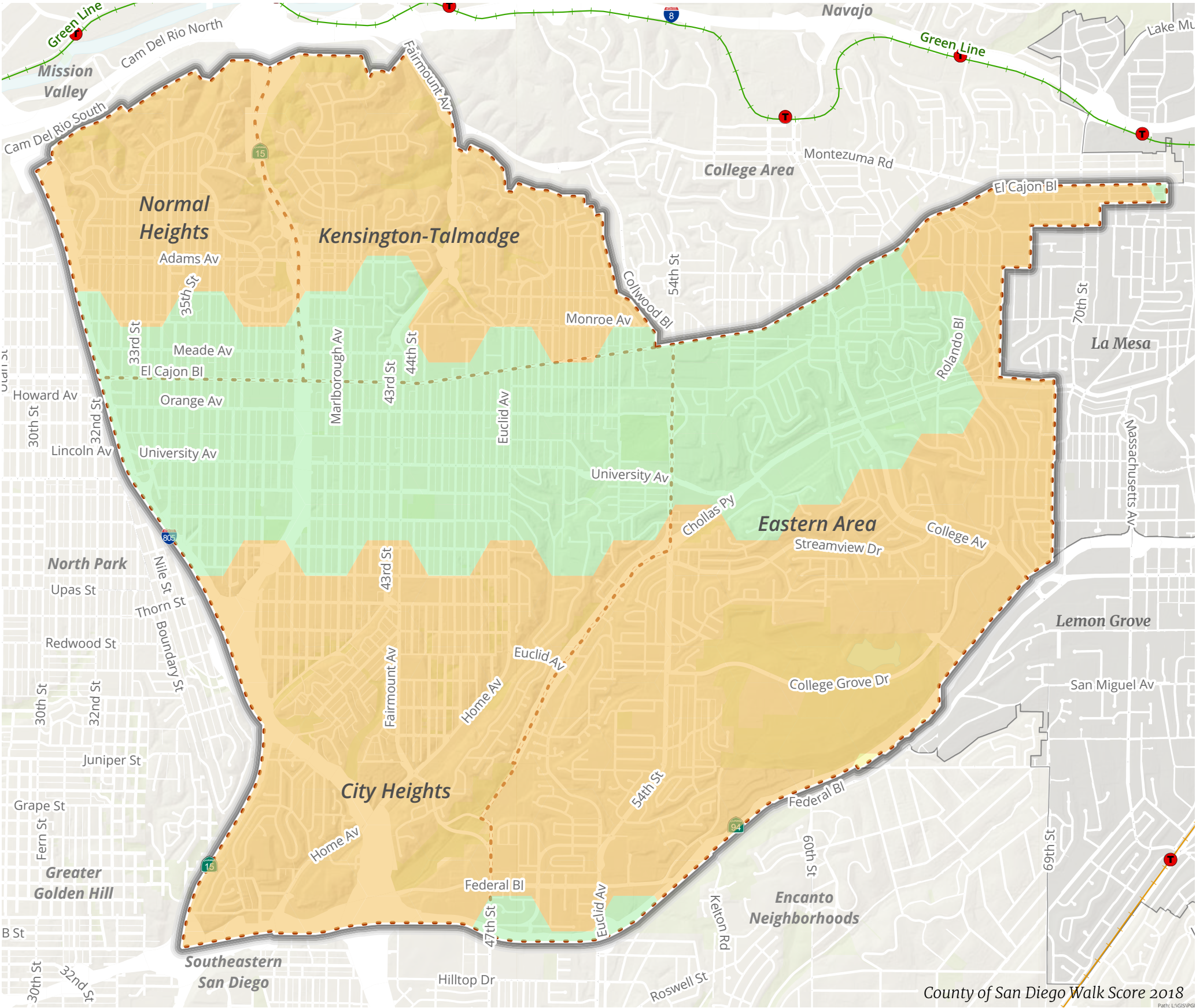


Figure 3-4 Mid-City Transit Score



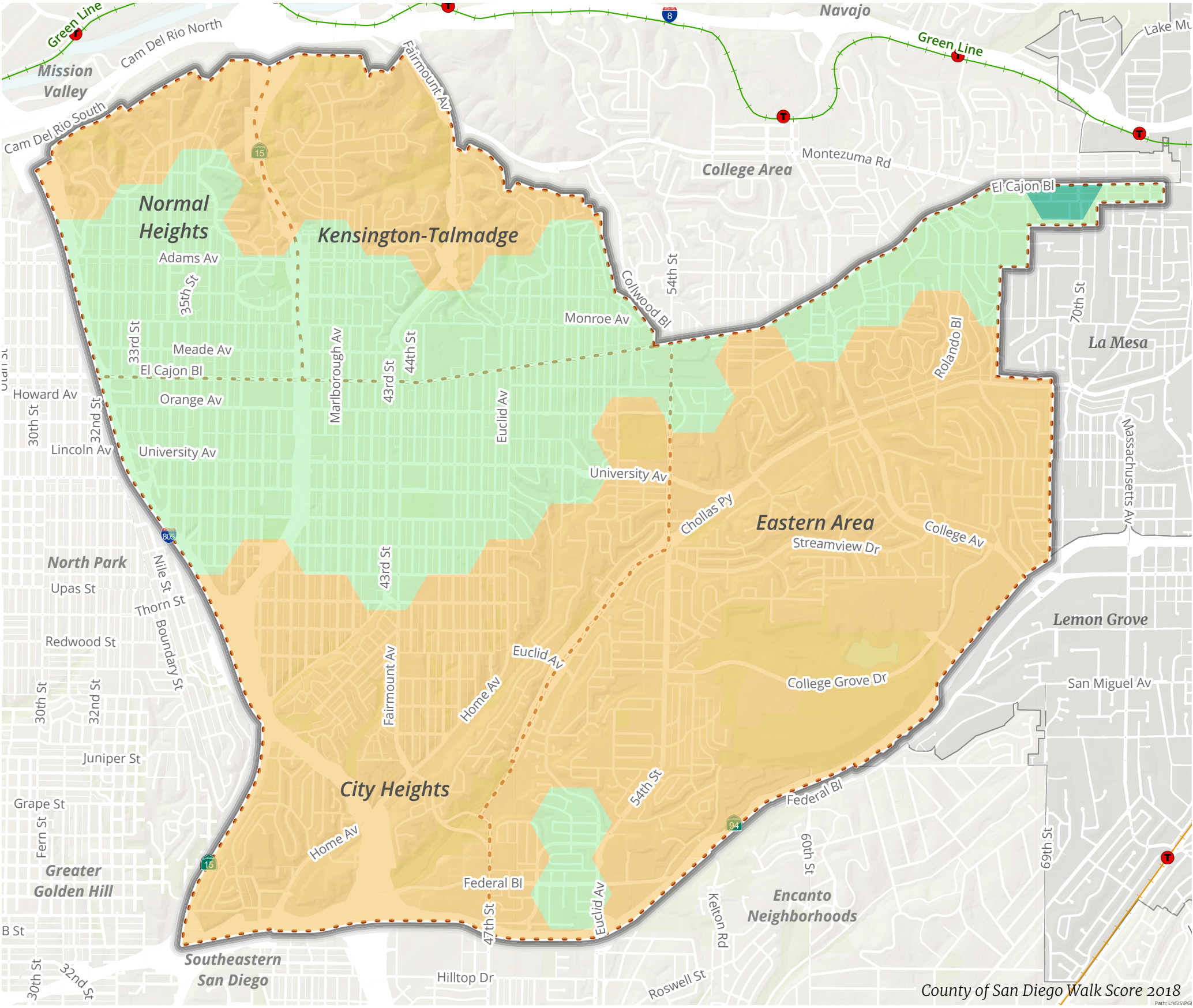
Transit Score

- Good Transit | Many nearby public transportation options
- Some Transit | A few nearby public transportation options

Communities	Score
Normal Heights	
Good Transit	21%
Some Transit	79%
Kensington-Talmadge	
Good Transit	19%
Some Transit	81%
City Heights	
Good Transit	43%
Some Transit	57%
Eastern Area	
Good Transit	25%
Some Transit	75%



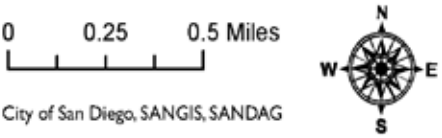
Figure 3-5 Mid-City Bike Score



Bike Score

- Very Bikeable | Biking is convenient for most trips
- Bikeable | Some bike infrastructure
- Somewhat Bikeable | Minimal bike infrastructure

Communities	Score
Normal Heights	
Bikeable	64%
Somewhat Bikeable	36%
Kensington-Talmadge	
Bikeable	48%
Somewhat Bikeable	52%
City Heights	
Bikeable	41%
Somewhat Bikeable	59%
Eastern Area	
Very Bikeable	2%
Bikeable	12%
Somewhat Bikeable	86%



County of San Diego Walk Score 2018

BLUEPRINT SAN DIEGO

In July 2024, the City Council adopted an amendment to the City’s General Plan known as Blueprint San Diego including the Village Climate Goal Propensity Map (Figure 3-6) to identify areas with the greatest transit competitiveness and where opportunities for new homes can most effectively implement the General Plan’s City of Villages Strategy. The Village Climate Goal Propensity Map serves as a guide for community plan update efforts, including the Mid-City Communities Plan Update, to align with Climate Action Plan mode share goals. This map indicates that the Mid-City should include increased opportunities for new homes and jobs within the community given the existing and planned transit which will help reduce vehicle miles traveled and support sustainable growth.



Urban Village Centers



Subregional Employment Areas



Downtown

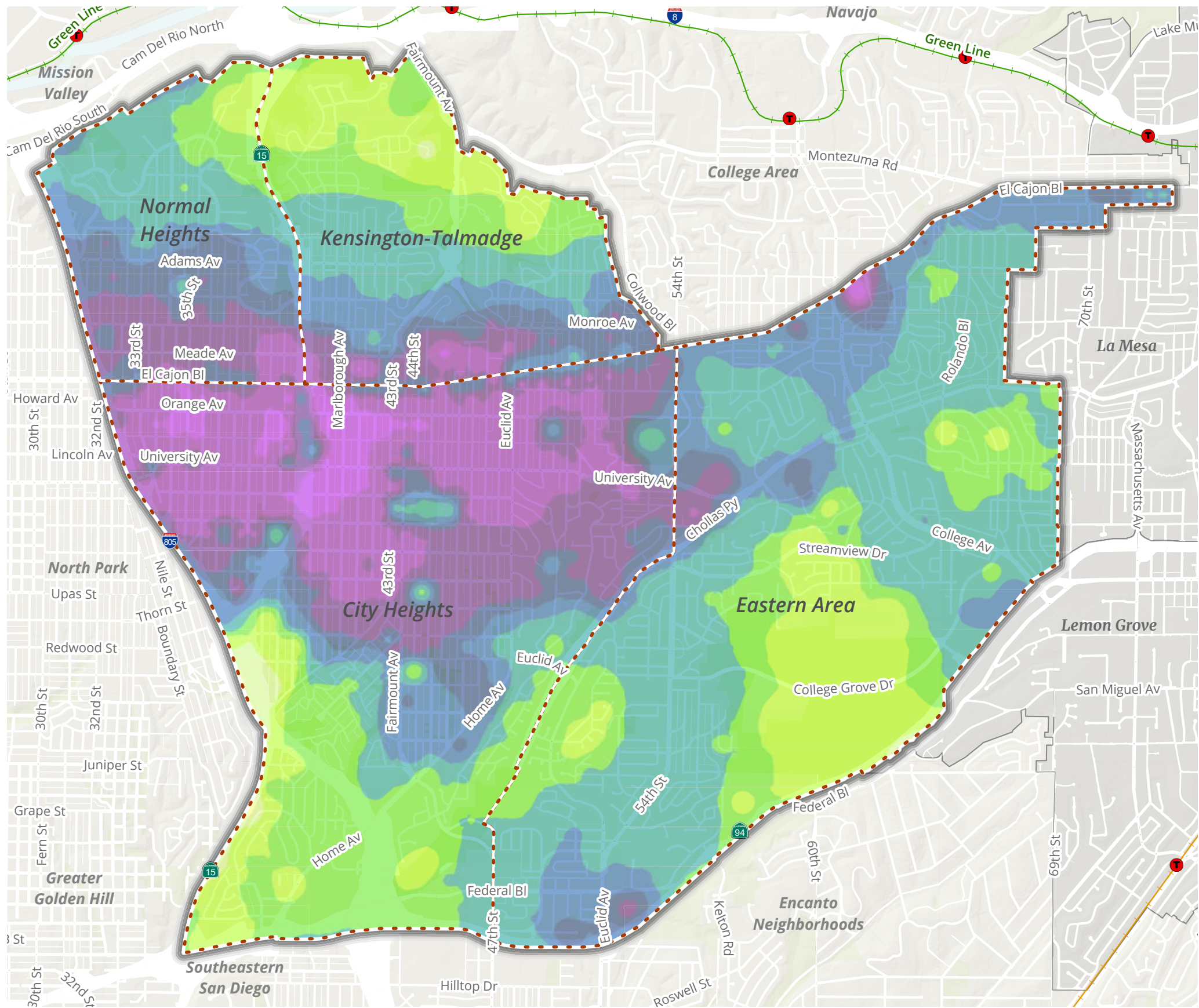


Community and Neighborhood Village Centers



Transit Corridors

Figure 3-6 Mid-City Village Climate Goal Propensity Map



Village Propensity

Community Plan Boundary

Trolley Stop

New Homes and Services Level

High
Low

0 0.25 0.5 Miles

City of San Diego, SANGIS, SANDAG



3.4. Equity

HISTORICAL INEQUITY

The Great Depression brought home construction in San Diego to a near stand-still in the early 1930s, with high unemployment and defaults on existing mortgages. In 1933, the Home Owners Loan Corporation (HOLC) was established by the Roosevelt administration to buy mortgages at risk of foreclosure and refinance them into new government mortgages, which would allow people to keep their homes.

However, the HOLC would not buy and offer mortgages in areas they deemed economically hazardous. To identify these areas, maps were made of major cities with each neighborhood ranked as either “A”, “B”, “C” or “D”. Neighborhoods ranked “D”, shown in red on the maps, were ineligible for federal mortgages, an action known as “redlining.” Redlined neighborhoods were often the oldest neighborhoods in the City occupied by lower income residents and people of color.

Figure 3-7 shows the historic redlining boundaries and grades within the Mid-City planning area. A brief description of each of the grades is provided below:

- **Grade A, “Best”:** Described by HOLC as areas where mortgage lenders with available funds were willing to make their maximum loans, up to 75-80% of appraisal.
- **Grade B, “Still Desirable”:** Described by HOLC as areas where mortgage lenders tended to hold commitments 10-15% under the maximum loan limit, so approximated 65% of appraisal.
- **Grade C, “Definitely Declining”:** Described by HOLC as areas where mortgage lenders were more conservative and held commitments under the lending ratios for Grade A and Grade B areas.
- **Grade D, “Hazardous”:** Described by HOLC as areas where it was recommended that mortgage lenders refuse to make loans or only on a conservative basis.

In 1934, Congress passed the National Housing Act and established the Federal Housing Administration (FHA) to administer a program that offered federal mortgage insurance for private mortgage lenders in an effort to spur private lending. The FHA used the same redlining principles to deny mortgage insurance. Soon private banks, lending institutions, and the Veterans Administration (VA) would follow suit.

When the FHA expanded into construction loans for homebuilders, discrimination became even more explicit as the FHA prohibited builders from selling homes to African Americans.

OTHER CONTRIBUTING FACTORS

Concentrations of individuals on the basis of race, ethnicity, income, familial status, and to a lesser degree disability can be seen within the Mid-City planning area. Lower income individuals and people of color are disproportionately concentrated in certain neighborhoods within Mid-City.

These patterns of concentration are the result of several intersecting factors that include:

- redlining of many of the City’s older neighborhoods occupied by lower income residents and people of color, preventing them from securing mortgages, purchasing or improving property, and building generational wealth;
- the use of restrictive covenants in real estate deeds between 1910 and 1948 in many areas of the City that prohibited sale of the property to individuals not of the Caucasian race and established minimum valuations that excluded lower income property owners and residents;
- “White flight” from older suburban areas developed around the turn of the 20th century in the communities to the east and southeast of downtown;
- the implementation of exclusionary zoning that protected single-family homes from all other development, including multi-family development; thereby reinforcing existing racial and economic segregation;
- construction of freeways through older communities that disproportionately impacted lower income individuals and people of color, demolishing buildings, displacing residents and business, and cutting communities off from one another; and
- growth management initiatives that limit the City’s ability to increase housing in certain areas of the City without a vote of the people.

While many of the above factors have since been deemed unconstitutional and/or immoral and are no longer in practice, the effects of these past actions still remains.¹ More than half of Mid-City is classified as Environmental Justice Communities today, which describes areas that are most impacted and negatively affected by environmental burdens and associated health risks.²



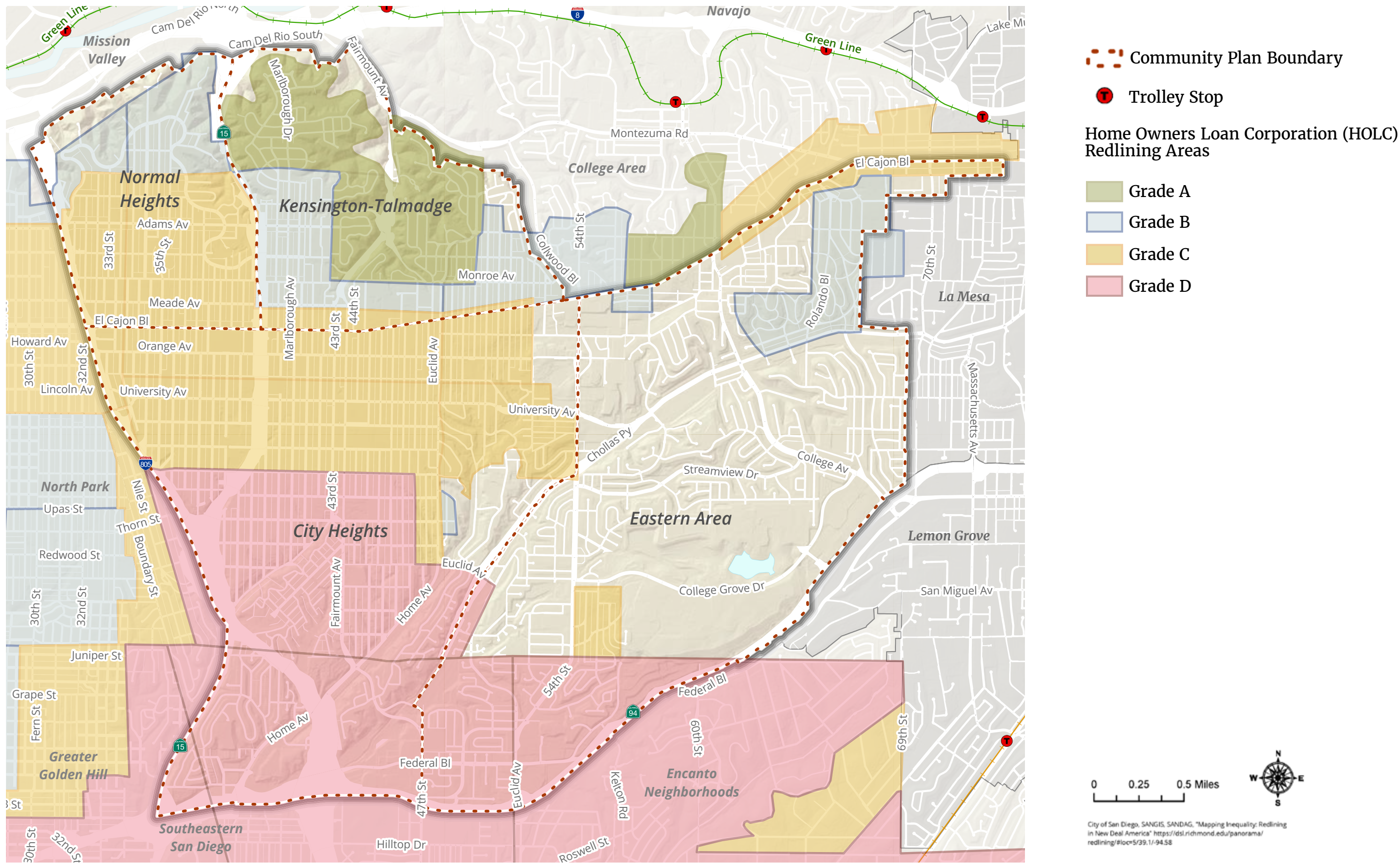
Environmental Justice Communities in and near Mid-City



Oak Park mural of Dr. Martin Luther King Jr.

1 https://www.sandiego.gov/sites/default/files/he_appa_assessmentfairhousing_final.pdf
2 https://www.sandiego.gov/sites/default/files/2024-07/general-plan_11_environmental-justice_july-2024_0.pdf

Figure 3-7 Federal Home Owner’s Loan Corporation (HOLC) Graded Area Map 1935



3.5. Opportunities & Neighborhood Change

OPPORTUNITY MAP

Opportunity Map developed annually by the California Tax Credit Allocation Committee (CTCAC) and Housing and Community Development identifies the neighborhoods that score better across eight economic and educational indicators relative to other neighborhoods in the region. These indicators were selected because they have been shown by research to be associated with positive economic, educational, and health outcomes for low-income families - particularly long-term outcomes for children:

Economic Indicators

- Above 200% of Poverty - Percentage of population with income above 200% of federal poverty line
- Adult Education - Percentage of adults with a bachelor’s degree or above
- Employment - Percentage of adults age 20-64 who are employed in the civilian labor force or in the armed forces
- Median Home Value - Value of owner-occupied units

Education Indicators

- Math proficiency - Percentage of 4th graders who meet or exceed math proficiency standards
- Reading proficiency - Percentage of 4th graders who meet or exceed literacy standards
- High school graduation rate - Percentage high school cohort that graduated on time
- Student poverty rate - Percentage of students not receiving free or reduced-price lunch

The Opportunity Map also reflects local environmental conditions by using a subset of data from the CalEnviroScreen 4.0 tool to identify the geographies that have the highest potential - defined here as ranking in the highest 5% of regional environmental burden - to expose vulnerable populations to nearby health and safety threats.

A neighborhood’s opportunity score is determined by how many economic and education indicators fall above the median (50th percentile) tract or block group value within each region.

Using this method, the final scores are divided into four primary categories:

- 9 or 8 = “Highest Resource
- 7 or 6 = “High Resources”
- 5 or 4 = “Moderate Resource”
- 3 or lower = “Low Resource”

Based on these criteria, Figure 3-8 highlights majority of neighborhoods in Mid-City are categorized as Low Resource, followed by Moderate Resource in portion of Normal Heights and Kensington-Talmadge.

High-Poverty & Racially Segregated Areas

The map also illustrates five census tracts in City Heights that meet the definition for High-Poverty & Segregated areas. High-poverty is defined as tracts with at least 30% of the population falling under the federal poverty line. Racial segregation is defined as tracts with a racial/ethnic Location Quotient of higher than 1.25 for Black, Hispanic, Asian, or all people of color in comparison to the county.

NEIGHBORHOOD CHANGE

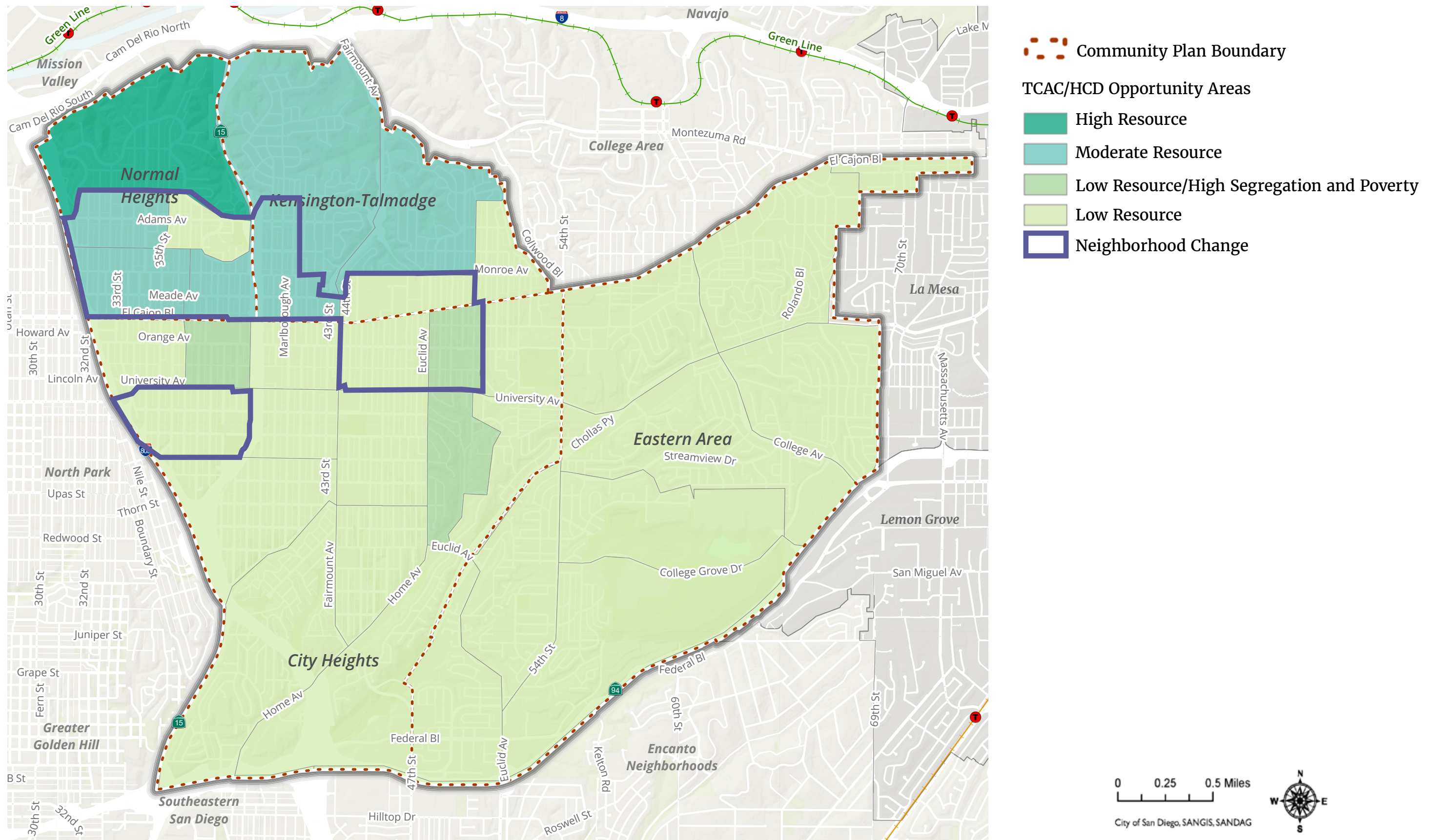
Neighborhood Change¹ area (Figure 3-8) identifies census tracts that have experienced both substantial racial/ethnic demographic change (growth in non-Hispanic white share of the population) and economic demographic change (growth in the share of high-income households), as well as markers of disproportionate housing need (rising median rents). The approach is intended to identify places that have already undergone substantial racial and economic change over a period of time. Based on this methodology, eight Mid-City census tracts in Normal Heights, Kensington-Talmadge and City Heights show substantial changes in neighborhood demographics, growth in high-income households and rising median rents.



Mural in Little Saigon – a census tract experiencing neighborhood change

1 <https://belonging.berkeley.edu/2024-hcd-affh-mapping-tool>

Figure 3-8 California Tax Credit Allocation Committee (CTCAC) Opportunity Map (2025)



3.6. Hydrology, Flooding, and Wildfire

HYDROLOGY

City Heights and Eastern Area are entirely within San Diego Bay Watershed Management Area (WMA) and subwatershed of Pueblo San Diego and Chollas Creek Watershed.¹ The Chollas Creek Watershed is a vital natural resource encompassing a network of water channels, parks and surrounding open space. The watershed stretches across the neighborhoods of City Heights, Eastern Area, Encanto, Southeastern San Diego, Barrio Logan, Greater Golden Hill, North Park and Normal Heights. The watershed plays a crucial role in maintaining the region’s ecological balance and providing essential habitat for numerous plant and animal species as well as providing opportunities for community-serving recreation.

Significant portions of Normal Heights and Kensington-Talmadge are within the San Diego River WMA, while other areas of Mid-City are part of the San Diego Bay WSA. The San Diego Bay WSA is the largest WSA located entirely within the boundaries of San Diego County and is estimated to be home to approximately one-third of the population of San Diego County.

FLOODING

The 100-year floodway, 100-year flood plain, and 500-year flood plain for Mid-City Plan Area are delineated by the Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate maps and illustrated in Figure 3-6. The majority of Mid-City sits on a mesa top, providing views of the surrounding communities as well as elevation protection for flooding. The canyon areas of Mid-City provide open space access and visual relief from the built environment. The canyons areas also provide value by providing a thoroughfare for water during high precipitation events; flood zones are primarily limited to the canyon areas.

2016 San Diego Winter Storms

In January of 2016, an El Niño year, San Diego experienced a series of heavy rain storms. There was flooding and road closures Countywide, including along Aldine Drive and Fairmount Avenue in Mid-City during one storm on January 5th. One driver was rescued after driving into stormwater. It rained 2.02 inches in a 24-hour period.

January 2024 - Chollas Creek Flood

According to the National Weather Service, January 22nd, 2024, was the fourth wettest day in San Diego’s recorded history which received 2.73

inches of rain. The heavy rainfall overwhelmed the stormwater channels, and several locations in Mid-City experienced catastrophic damages. Many residents of Village Green apartments in Rolando Park, a low-income housing complex in the Eastern Area, were significantly impacted by the flood, temporarily displaced, and lost belongings.

WILDFIRE

Portions of the community are identified as being within a Very High Fire Hazard Severity Zone by CAL FIRE due to potential hazard from wildland fires. Residents of these areas, especially adjacent to canyons, should take additional measures to be prepared for threat of wildland fire. The San Diego Fire-Rescue Department provides information that should be used when safeguarding homes and responding during a fire emergency.

1985 - Normal Heights Fire

A fire fueled by heavy brush and strong winds raced up a series of Mission Valley canyons on June 30, 1985. The Normal Heights Fire burned 300 acres, destroyed 76 houses and damaged 57 others. Damage was set at \$9 million. 1,000 to 1,500 people were evacuated. It was, at the time, the worst brush fire in San Diego history.

Heavy brush in the canyons and around the houses on the canyon rim propelled the fire. A force of some 400 firefighters and 98 rigs fought the fire. Firefighters from virtually every city and rural fire district in the county rushed to San Diego to help, including teams of federal firefighters from North Island and Miramar Naval Air Stations. The San Diego Fire Department called in 40 off-duty firefighters. Reinforcements came from Ventura, Imperial, Riverside and Orange Counties. By evening, two air tankers arrived from Ventura County.

The Normal Heights fire pushed the City of San Diego to establish several initiatives including a weed and brush abatement program, an educational campaign for canyon rim residents and a plan to improve water pressure in the Mid-City area.

Recent Brush Fires

Between 2019 and 2024, the Kensington and Talmadge neighborhoods experienced several fires. In October 2019, a brush fire near Fairmount Avenue and Aldrine Drive prompted evacuations and power outages for nearby residents. In September 2024, a brush fire began in Alder Canyon on a 103-degree day. In October 2024, a fire consumed 39 acres south of Montezuma Road, leaving one home damaged. In each of these instances, San Diego Fire acted quickly with support from dozens of engine crews and helicopter drops and no injuries were reported.



Chollas Creek after a downpour



Flooded underpass on Aldine Drive



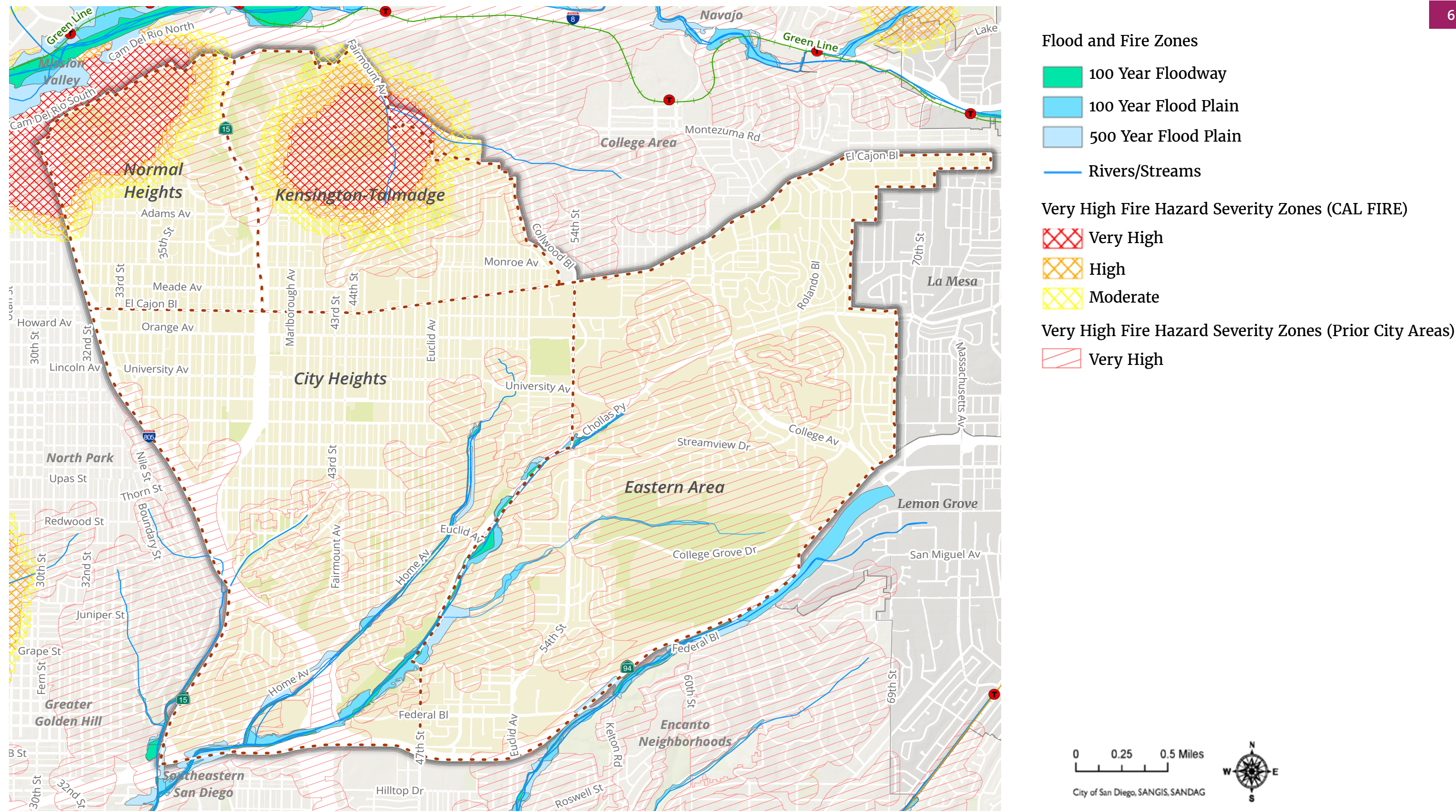
A house and a car burn North Mountain View Drive in Normal Heights about 1:30 p.m. on June 30, 1985 (Bruce Huff/ The San Diego Union-Tribune file photo)



2024 Brush fire in Kensington-Talmadge

¹ <https://www.sandiegocounty.gov/content/sdc/dpw/watersheds/Watersheds.html>

Figure 3-9 Hydrology, Flooding and Wildfire



CAL FIRE. Fire Hazard Severity Zones Map. (2025). <https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones>.

3.7. Urban Heat Island

OVERVIEW

Areas with limited tree cover and high concentrations of structures like buildings and roads tend to absorb and radiate heat more than natural landscapes, resulting in elevated temperatures—a phenomenon known as the urban heat island effect. Rising temperatures from climate change further exacerbates the urban heat island effect.

Heat Vulnerability measures how susceptible a community is to the impacts of extreme heat, considering both environmental exposure and social factors like age, income, and pre-existing health conditions. factors in social and health indicators. Identifying vulnerable areas and the driving factors helps to address the impacts of urban heat island.

HEAT EXPOSURE

Using satellite imagery from Landsat 8 Surface Reflectance Tier 1 image collection, the NASA DEVELOP team based out of Tempe, Arizona measured heat exposure in the summers of 2015 to 2020 for the City of San Diego and measured the average temperature for each census tract.¹ Figure 3-10 highlights the 14 census tracts with Very High heat exposure in Mid-City. The combination of high impervious surfaces, low tree canopy, and distance from the cooling effects of the coast on the mesa top increases the heat exposures in Mid-City communities.²

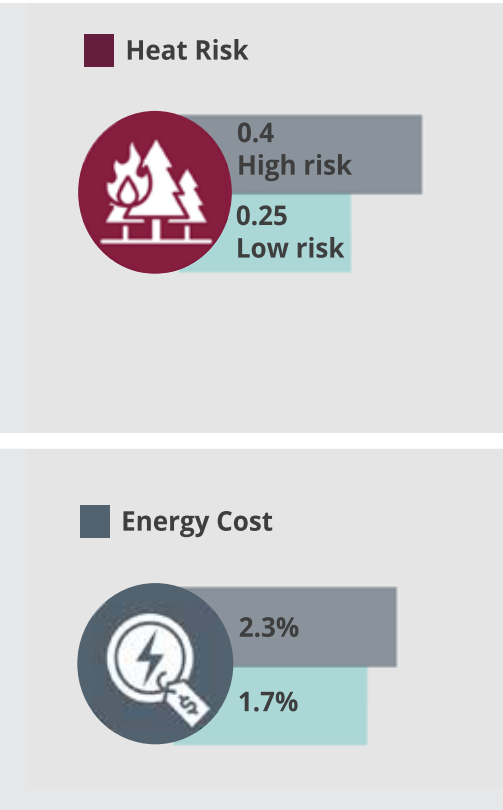
HEAT RISK

Heat risk, as illustrated in Figure 3-11, is a measure of heat exposure and heat vulnerability combined. Values for census tracts are normalized to a range of 0 to 1 with higher scores indicating higher heat risk. The average score for Mid-City communities is considered high risk at 0.4, while the average across the City is generally low risk at 0.25. This indicates that neighborhoods in Mid-City face greater risk to extreme heat events, such as heat waves, than other areas of the city.

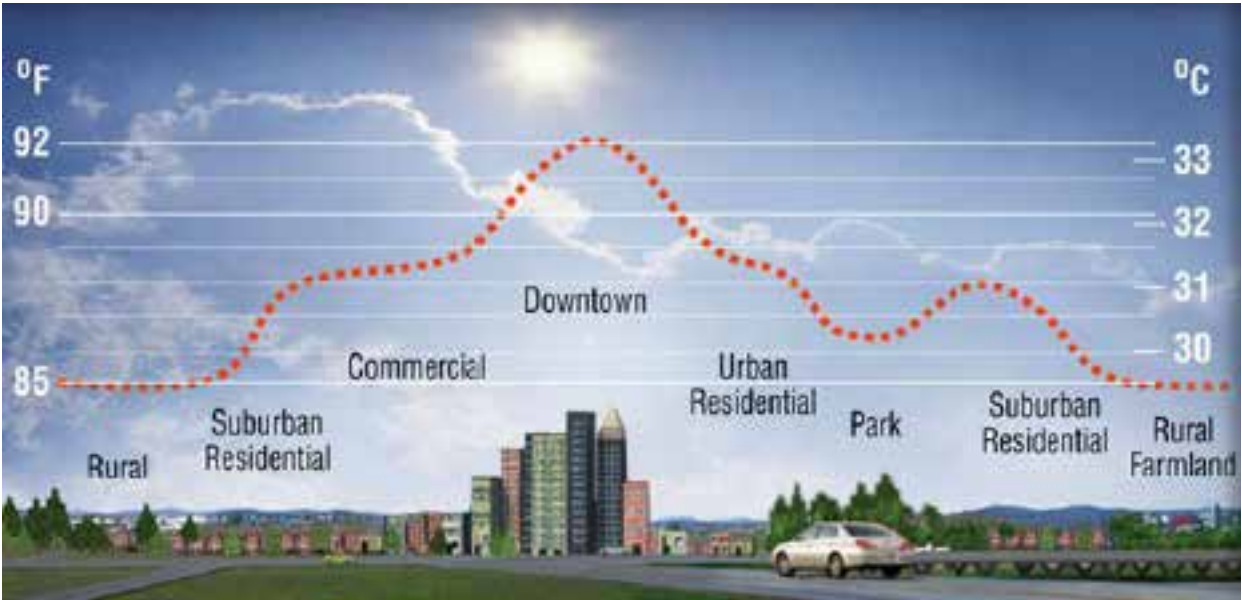
Moreover, older, more developed neighborhoods may face challenges in maintaining comfortable indoor temperatures due to outdated building infrastructure lacking energy-efficient features such as proper insulation, modern appliances, and efficient heating and cooling systems.

ENERGY COST BURDEN

The energy cost burden, which denotes the proportion of household income spent on energy expenses like electricity and natural gas, disproportionately affects certain households, particularly those with lower incomes. While community members may use cost-effective methods like fans or adding extra layers of clothing to reduce energy consumption, these strategies may not be sufficient during extreme weather events. Establishing a local dataset detailing building ages and areas suffering from high heat risk can provide insights into disparities prevalent in older and less affluent areas to inform future community resilience strategies.



Environmental Justice Communities (gray bar), on average, face higher Heat Risk and Energy Cost Burden compared to the rest of the City (teal bar).



Urban Heat Island – Image Credit : U.S. EPA

1 <https://storymaps.arcgis.com/stories/d79916f065424f1a91c3663cb486a126>
2 https://www.sandiego.gov/sites/default/files/2024-08/climate-resilient-sd_3-22-24.pdf

Figure 3-10 Urban Heat Vulnerability Index - Heat Exposure

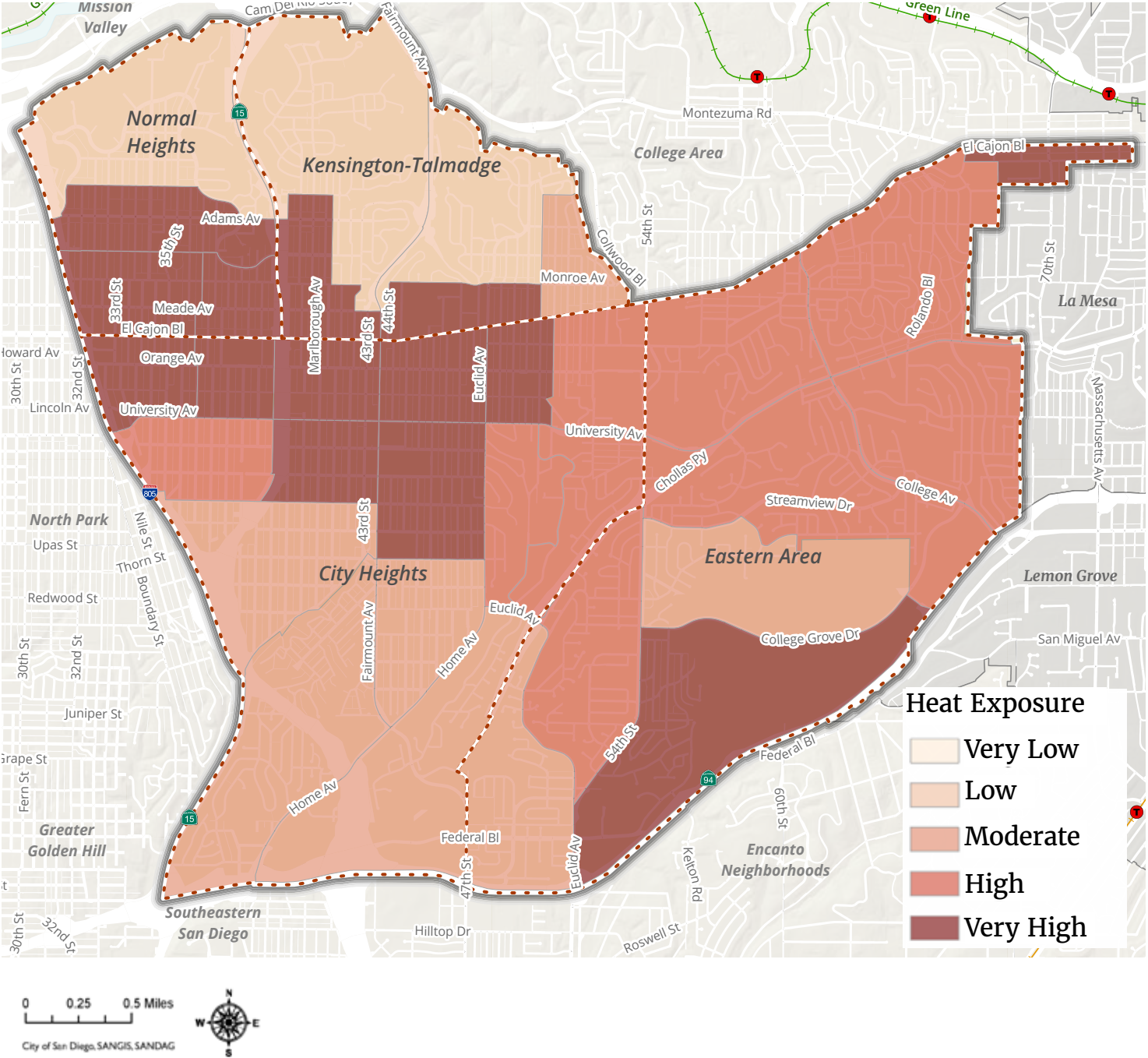
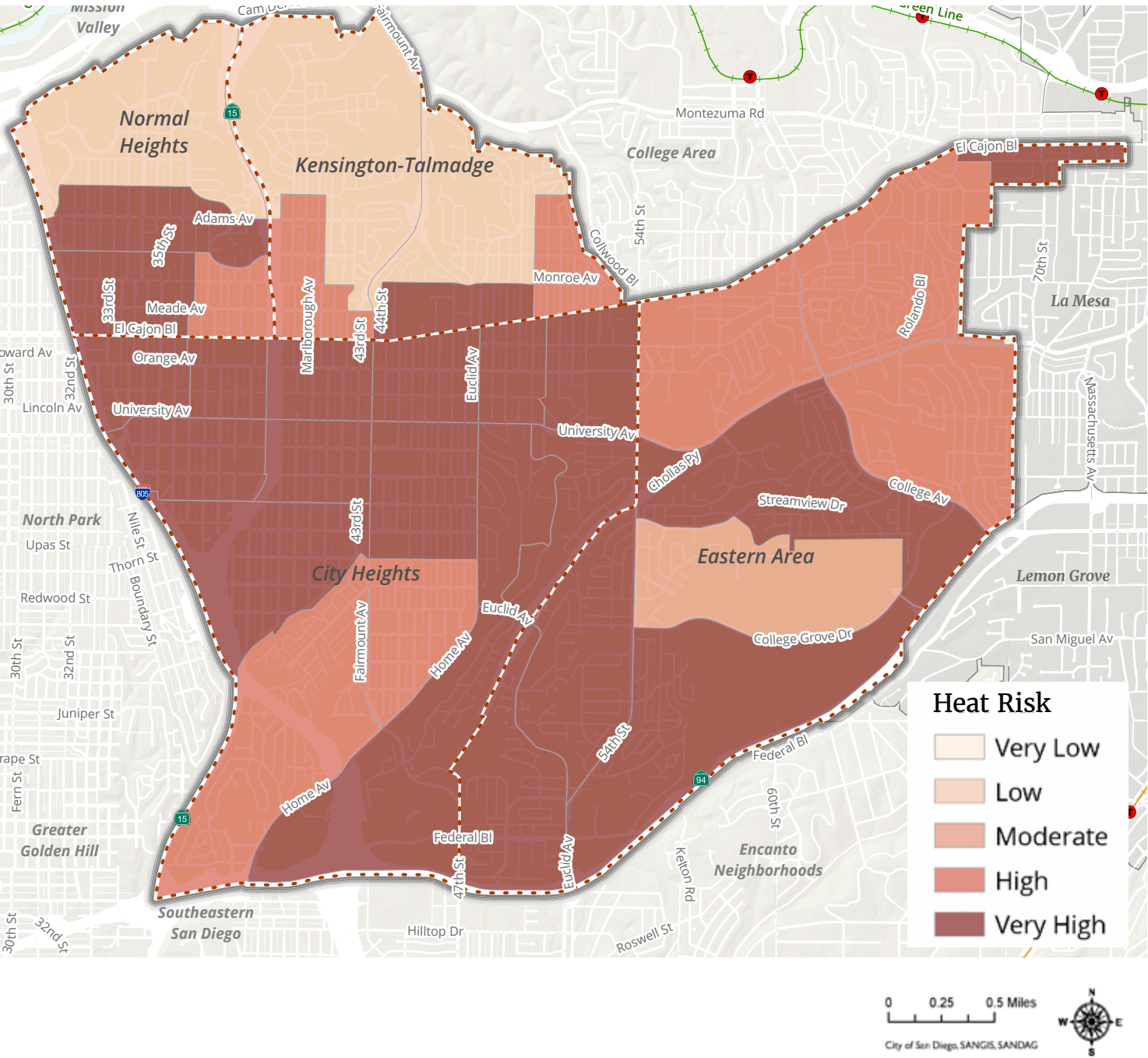


Figure 3-11 Urban Heat Vulnerability Index - Heat Risk



3.8. Urban Tree Canopy

The urban tree canopy provides enormous benefits, including:

- Enhancing placemaking and community character
- Increasing real estate value
- Providing shade and cooling, while supporting energy conservation
- Providing habitat
- Providing health benefits, including reducing pollutants and improving air quality
- Supporting soil and carbon sequestration

The City’s General Plan establishes the importance of urban forestry. The Conservation Element establishes goals and policies for the protection and expansion of a sustainable urban forest, including retaining and protecting significant and mature trees, planting large canopy shade trees to maximize environmental benefits, requiring the planting of trees with new development, and developing street tree master plans. In 2017, the City Council approved the Urban Forest Management Plan, a document to coordinate the work of multiple City departments, and the City is currently in the process of finalizing an Action Plan. The City’s 2022 Climate Action Plan establishes a specific goal to increase urban tree canopy cover with targets of 28% by 2030 and 35% by 2035, with actions that target increasing tree planting in Communities of Concern, including identifying areas for tree planting, expanding the tree canopy throughout parks, the transportation network, and freeways, and reducing fees and code hurdles.



Tree canopy on Aragon Drive, adjacent to the Kroc Center.

TREE CANOPY COVERAGE

Figure 3-12 shows the tree coverage in Mid-City. The mapping is based on City land cover data derived from high resolution aerial imagery and LiDAR. Analysis of this data found that approximately 15% of the Mid-City planning area is covered by tree canopy, which is significantly lower than the City’s goal of 28% by 2030. It should be noted that palm tree data can be difficult to reflect on a tree canopy map, and does not provide much of a canopy, however the figure is generally representative of an order-of-magnitude analysis for an area of this size.

Many of the residential streets, especially in the older neighborhoods of Kensington, Talmadge, and Normal Heights, include extensive mature tree canopies. Many portions of Mid-City include natural vegetated valleys, with low brush, but limited tree canopy. Of note, there are freeway corridors in the Mid-City which contribute to the low coverage ratio, particularly in City Heights and Eastern Area. Additionally, many of the major corridors such as El Cajon Boulevard, College Avenue, and University Avenue, as well as many neighborhood streets and parking areas, lack a cohesive tree canopy network. The tree canopy varies considerably across the Mid-City, with Kensington-Talmadge having significantly more tree canopy than other parts of the Mid-City, at approximately over 21% coverage. Normal Heights has approximately 16.3% tree coverage, though it should be noted that Adams North has denser tree coverage, while the southern portion of the neighborhood is more akin to City Heights. City Heights and Eastern Area both have considerably lower tree canopy coverages at approximately 13.6 and 13.9% respectively. This is less than half of the City’s 28% goal, and reflective of larger parts of the Mid-City planning area with freeway right-of-way and major corridors.



Healthy tree canopy at Cherokee Point Park in City Heights.

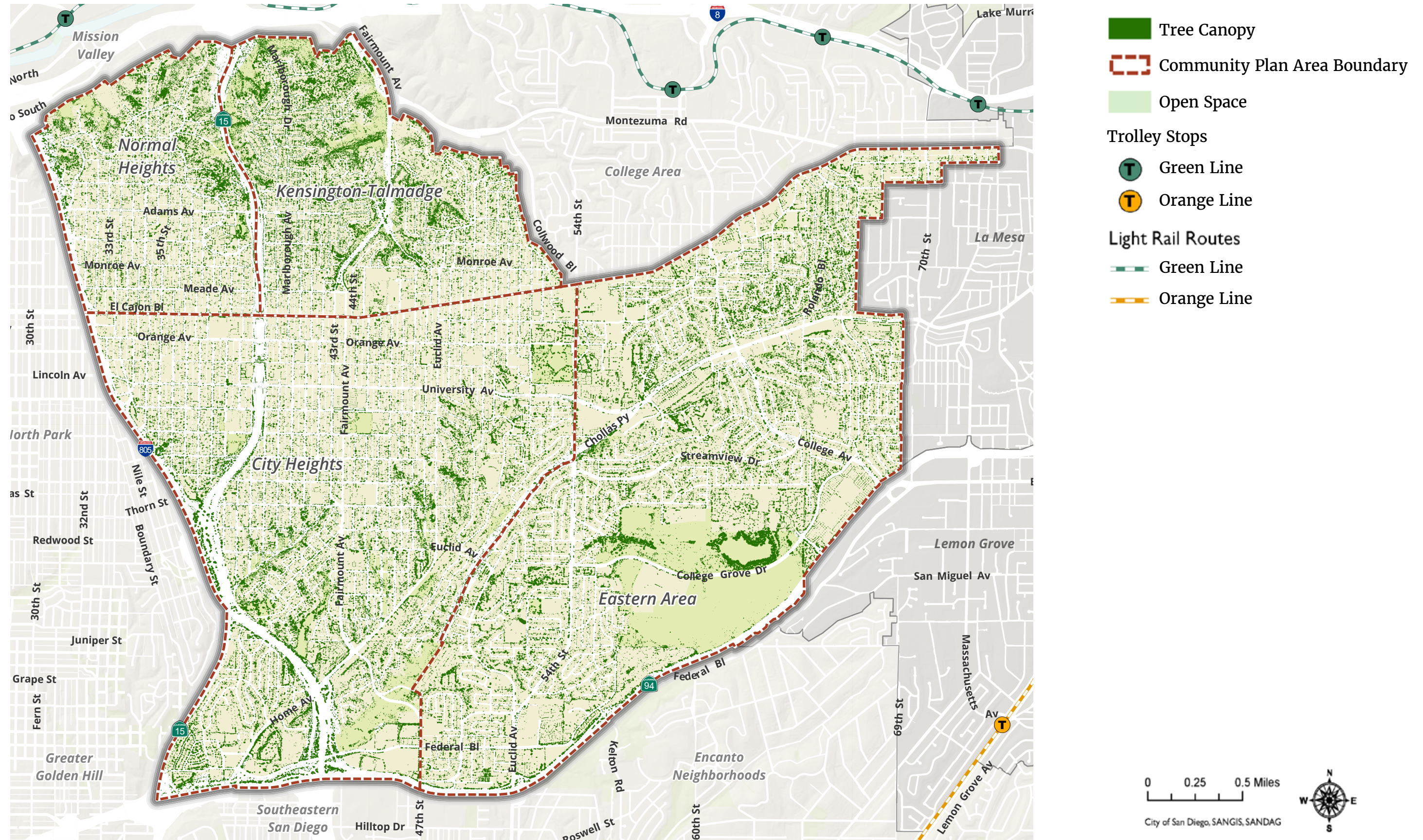


Western segment of El Cajon Boulevard, limited street trees in poor health.



Street trees along Adams Avenue in Normal Heights.

Figure 3-12 Tree Canopy Coverage



3.9. Sustainability, Equity & Climate Resilience Summary

This section summarizes the key information related to sustainability, equity and climate resilience for the Mid-City planning area presented in this chapter.

- Due to a centrally located transit-rich environment and diverse housing types, **Mid-City residents consume fewer resources, engage in less driving, and incur lower expenses** for both autos and utilities than the regional average.
- The majority of the planning area is within the **Transit Priority and Sustainable Development Areas** and features several designated smart growth areas.
- Compared to the rest of the City, Mid-City has **better pedestrian, bicycle, and transit scores. 58% of Mid-City is considered Very Walkable or Somewhat Walkable**, compared to 17% in the City of San Diego.
- Redlining **systematically marginalized lower-income residents and people of color** in the Mid-City planning area, compounding with other past discriminatory practices and policies to reinforce racial and economic segregation that still lingers today.
- The majority of neighborhoods are categorized as **Low Resource** compared to the region, with some areas in Normal Heights and Kensington-Talmadge classified as Moderate and High Resource. Additionally, City Heights has three census tracts that are **classified as high-poverty and racially segregated areas**.
- Meanwhile, eight census tracts are experiencing significant Neighborhood Change in Mid-City, particularly in Normal Heights, Kensington-Talmadge, and City Heights, which have **experienced significant demographic and economic shifts**, including an increase in high-income households and rising median rents.
- **Canyons and canyon-adjacent lands** in Mid-City are identified as areas of **highest risk for flooding and wildfire**.
- In contrast to the City’s generally low heat risk average, **Mid-City is rated at a high heat risk** with larger population of individuals with health conditions like heart disease and diabetes. This risk is further compounded by high impervious surfaces, low tree canopy, and distance from the cooling effects of the coast on the mesa top. Heat risk is a combination of heat exposure and heat vulnerability, which are both significant factors.
- The planning area struggles with **significantly lower tree canopy coverage** in the planning area than the city’s goal. Additionally, tree canopy varies across neighborhoods such as Kensington-Talmadge, boasting over 21% coverage, while City Heights and Eastern Area have notably lower percentages at just over 13%.

