

City of West Hollywood
Climate Action and Adaptation Plan
December 2021 Draft

"Just as we chose to go to the moon We know it's never too soon To choose hope.

We choose to do more than cope
With climate change
We choose to end it—
We refuse to lose.
Together we do this and more
Not because it's very easy or nice
But because it is necessary,
Because with every dawn we carry
the weight of the fate of this celestial body orbiting a star.
And as heavy as that weight sounded, it doesn't hold us down,
But it keeps us grounded, steady, ready,
Because an environmental movement of this size
Is simply another form of an earthrise."

--Excerpt from the poem "Earthrise" by Amanda Gorman



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Chapter 1

Foreword

- 1.1 Land and People Acknowledgement
- 1.2 Project Team Acknowledgements



Foreword

1.1 Land and People Acknowledgment

The City of West Hollywood recognizes the Gabrileño Tongva and Gabrileño Kizh as the first people of this ancestral and unceded territory, and we acknowledge that the City is built upon and has benefited from their land stewardship over many generations. With respect to their elders, past and present, we recognize the Tongva/Kizh who are still here, and we commit ourselves to lifting up their stories and culture.

The City of West Hollywood has much to learn from the Tongva/Kizh regarding its role as a guest on the land, the inherent power the land holds, and how seventh generation principles can be applied in our planning and policy making decisions to consider impacts on present and future residents. Developing a restorative relationship with people and place requires dedication to reciprocity, co-stewardship, repair, and rematriation, and it is central to our efforts to mitigate climate change and build adaptive capacity.

Artwork designed by Monique G. López.

Images are plants native to West Hollywood which include: chia; California Buckwheat; alvord oak; black sage; and scouringrush horsetail (images from calscape.org). The background image is an 1884 map of West Hollywood and the surrounding areas

Images from:

https://calscape.org/ https://ngmdb.usgs.gov/ ngmdb/ngmdb_home.html



1.2

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Finance and Technology Services

Human Services & Rent Stabilization

Public Safety

Public Works

West Hollywood City Commissions and Advisory Boards

Arts & Cultural Affairs Commission

Disabilities Advisory Board

Business License Commission

Historic Preservation Commission

Human Services Commission

Lesbian & Gay Advisory Board

Planning Commission

Public Facilities Commission

Rent Stabilization Commission

Russian Advisory Board

Senior Advisory Board

Transgender Advisory Board

Transportation Commission

Women's Advisory Board

Consultant Support

Buro Happold

Inner & Outer Engagement

MIG

Pueblo Planning

Engagement Partners

Ascencia

Head Start Preschool

Jewish Family Services

LGBTQ Center

Sacred Places Institute for Indigenous Peoples

West Hollywood Communty Development Corporation

West Hollywood Library

West Hollywood Parks and Recreation Department

Community Partners and Stakeholders

Alliance for Housing and Healing

Athens Waste Services

California Green Business Network

Cedars-Sinai

Clean Power Alliance

Climate Resolve

Electrification Coalition

ICLEI USA

Los Angeles Cleantech Incubator

Los Angeles County Chief Sustainability Office

Los Angeles Urban Cooling Collaborative

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Chapter 2

Executive Summary

- 2.1 Overview of WeHo Climate Action
- 2.2 Equitable Climate Action

Executive Summary

2.1

Overview of WeHo Climate Action

WeHo Climate Action is the Climate Action and Adaptation Plan for the City of West Hollywood; it outlines the City's intended path to dramatically reduce greenhouse gas emissions and adapt to the impacts of a changing climate, while centering equity and quality of life outcomes for the West Hollywood community. West Hollywood is already a nationally recognized leader in sustainability and climate action. This plan will enable the City to achieve carbon neutrality by the year 2035 and maintain net-negative emissions thereafter. WeHo Climate Action focuses on measures that fall under the City's direct influence, while recognizing that it will take collaboration between municipalities, the private sector, nonprofit partners, regional and State agencies, and the greater West Hollywood community to realize our vision of a healthy, sustainable future for all.

Measures included in this plan were developed after an extensive engagement process led by Pueblo Planning and Inner & Outer Engagement. City staff, members of the West Hollywood community, and regional climate experts provided insight into department priorities and concerns related to climate change and sustainability. Acknowledging that climate change affects people in different ways, the project team designed the process to center the needs of the specific subpopulations in West Hollywood that will experience climate change impacts "first and worst," including older adults, low-wealth households, immigrants, Urban Indigenous Peoples, people experiencing houselessness, and LGBTQIA+ youth. A series of community conversations with specific subpopulations surfaced personal stories and experiences of how people are grappling with the consequences of climate change. One such conversation, held in partnership with the Sacred Places Institute for Indigenous Peoples, centered the perspectives of Tongva and non-Tongva Urban Indigenous leaders.

Los Angeles County is home to more Native American/Alaska Natives than any other county across the United States.¹ The County sits on unceded territory of the Chumash, Tongva, and Tataviam. Through their stewardship of this land, these communities are recultivating their wealth of traditional ecological knowledge (TEK) that they were violently separated from. This evolving knowledge acquired by indigenous groups over hundreds of years through their direct contact with the environment.² The WeHo Climate Action engagement effort sought to better understand TEK principles, practices, and pathways to guide climate action and adaptation efforts, while also building a foundational relationship between the City and the local indigenous community for future collaboration.

It is important to note that this engagement process took place during the COVID-19 pandemic, the resulting economic recession, and the Black Lives Matter justice uprisings. Many of our initial plans to host in-person focus groups, workshops, and pop-up events were adapted into the form of virtual meetings, telephone calls, and online surveys.

Los Angeles City/County Native American Indian Commission. (n.d.). Tribal Governments. https://lanaic.lacounty.gov/resources/tribal governments/#:~:text=Los%2oAngeles%2oCounty%2ois%2ohome,Venture%C3%B1o%2C%2oGabriele%C3%B1o%2C%2oand%2oFernande%C3%B1o.

US Fish and Wildlife Service. (2011). Traditional Ecological Knowledge. https://www.fws.gov/nativeamerican/pdf/tek-fact-sheet.pdf.

Community feedback was paired with an evaluation of existing conditions, a review of best practices, and an evaluation of State and regional policies, guidelines, and recommendations to form 20 climate measures and 60 sub-actions. These are organized across the following five areas of focus:

1. City Leadership and Governance:

Measures in this focus area detail how the City will lead by example to reduce emissions and adopt climate-responsive practices, how the City will work with partners across Southern California, and how the City will bolster related communications and outreach.

2. Energy:

Climate measures in the Energy focus area detail how the City will tackle the transition to a future without fossil fuels. This transition requires both existing buildings and new construction to become fully electric and incorporate EV charging. Energy sub-actions also address energy affordability, access to local renewables, and resilience to climate-induced shocks such as power outages.

3. Transportation, Mobility, and the Public Realm:

The Transportation, Mobility, and the Public Realm focus area contain climate measures that describe how the City will enable and incentivize even more trips to be made by sustainable modes, how it will prepare for the shift to electric vehicles (EVs) for those trips that still require a car or truck, and how public realm investments will make the City a more comfortable environment for people walking and biking.

4. Zero Waste:

West Hollywood is committed to reducing waste at the source and divert as much as possible from landfills. The implementation of these measures hinges upon collaboration with the City's contracted waste hauler, Athens Services, which has waste diversion targets of its own.

5. Natural Environment:

Restoring nature is a critical component of bolstering climate resilience and reducing greenhouse gas emissions, and presents a chance to center the voices of Tongva and non-Tongva indigenous peoples. Climate measures in the Natural Environment focus area include greening efforts that expand the tree canopy, add vegetation, and restore soils, which can occur along public rights-of-way, private yards and roofs, alleyways, and other interstitial spaces.

The five areas of focus set the vision for a sustainable, resilient, and equitable West Hollywood. Measures define the direction the City will take to realize this vision. Sub-actions identify the specific steps City staff, decision-makers, and stakeholders will take over time in pursuit of these measures.



2.2

Equitable Climate Action

Climate change is fundamentally an equity issue. Historical policies rooted in segregation, discrimination, and oppression have caused certain populations to bear a disproportionate share of the consequences of climate change. Equitable climate action ensures those who are most severely impacted are prioritized during engagement processes, policy drafting, implementation, and resource allocation. All residents, no matter their background or experience, deserve to enjoy clean air and water, vibrant green spaces, robust carbon-free transit options, and representation in City processes.

The City of West Hollywood has an unwavering commitment to the dignity of all persons, inspiring a climate action plan rooted in the concepts of targeted universalism and reciprocity.

- Targeted universalism is a framework for policy-making, introduced by the UC Berkeley Othering and Belonging Institute, that sets universal goals that can be achieved through targeted approaches based on the needs of different groups.³ This approach deepens the sense of community cohesion by collectively working towards a common purpose, while forwarding equity by recognizing the challenges faced by certain groups to reach these goals. Hence, engagement efforts focused on those who currently experience and will experience the impacts of climate change in a more disruptive and harmful way than those with more resources and who do not bear the legacy of structural racism. Through this intentional approach, the application of this framework seeks to center the lived experiences of these communities and uplift their experiences, needs, and solutions in an effort to ensure there is a targeted process to achieve the climate action and adaptation goals in a truly inclusive manner.
- **Reciprocity**, a deeply rooted indigenous principle, is the practice of mutual exchange with others for mutual benefit. When community engagement participants expressed a particular need, whether it be for food assistance or rent relief, the City's partners shared relevant resources.

The community engagement process for the West Hollywood Climate Action and Adaptation Plan, led by Pueblo Planning, included conversations with individuals reflecting the following demographic groups: older adults, low-wealth individuals with children, people with disabilities, people experiencing houselessness and previously unhoused individuals, indigenous people, and monolingual Russian and Spanish speaking populations. Insights from these conversations revealed four core equity themes of greatest concern:

- Social Justice and the Climate Crisis
- Housing Security and the Climate Crisis
- Public Health and the Climate Crisis
- Food Access and the Climate Crisis

The following sections explore the ways these challenges intersect with climate action and adaptation, the City's existing programs and policies, and the ways in which this Climate Action and Adaptation Plan will address them.

³ Othering and Belonging Institute. (2019). Targeted Universalism: Policy and Practice. https://belonging.berkeley.edu/targeteduniversalism.

2.2.1

Social Justice and the Climate Crisis

Climate change has environmental, social, and economic implications. Climate hazards have the potential to affect all West Hollywood residents, but the ways in which their consequences are experienced are heavily shaped by demographic factors like race, socioeconomic status, gender, housing status, and more. Frontline communities are those who experience "first and worst" the effects of climate change including, but not limited to, youth, older adults, women, LGBTQIA+ individuals, Native American people, documented and undocumented immigrants, people with disabilities and chronic illnesses, people experiencing houselessness, victims of domestic violence and human trafficking, people experiencing linguistic isolation, outdoor workers, and those with limited access to transportation, critical infrastructure, and/or municipal services.

The scarcity of resources, economic conditions, and/or environmental hazards that make frontline communities vulnerable are often linked to historical and ongoing injustices and discriminatory policies. For example, years of redlining and restrictive covenants have excluded people of color, particularly Black people, from the housing market and generations of settler colonialism and violence have dispossessed Indigenous people of their land. In communities all across the United States, Black families were forced to locate in areas of town deemed "undesirable," that to this day are often lacking in green infrastructure, feature dilapidated housing stock, and/or border air-polluting industries. Additionally, today many Tongva cannot afford to live in their own homelands or do not have access to sites of ceremony or gathering. Climate action through the lens of social justice recognizes and addresses the inequities and disparities that affect a community's resilience to risk.

West Hollywood's History of Social Justice

The City of West Hollywood grew out of a coalition of seniors, LGBTQIA+ activists, and tenants' rights organizers who envisioned a progressive city with a policy agenda rooted in protecting the rights of residents of all ages, abilities, racial and ethnic backgrounds, gender expressions, and sexual orientations. At the time of the city's incorporation in 1984, it was the first municipality with a majority-LGBTQIA+ city council.

As defined through the 2003 West Hollywood Strategic Plan (Vision 2020), West Hollywood promotes "mutual respect, courtesy, and thoughtfulness" and celebrates the diversity of its community by recognizing the personal dignity in all individuals. In line with this mission, West Hollywood was the first city to call for marriage equality, the first city to declare itself a sanctuary city for undocumented residents, and the first to take on the label of a "pro choice" city. The City's Status of Women Report featured an extensive engagement process with West Hollywood's female-identifying residents to capture how social, economic, and health outcomes differ across genders. The Transgender Advisory Board, one of the first of its kind, addresses matters relating to advocacy on behalf of transgender rights such as education, community awareness, and empowerment.

For a city with less than a 2 square mile footprint, West Hollywood's leadership in human rights advocacy belies its modest borders. Landmark ordinances banning the discrimination of people based on their sexual orientation or their HIV/AIDS status served as inspiration for municipalities all over the nation. Affirming the city's status as a refuge for LGBTQIA+ immigrants and asylum-seekers, the Social Services Division produced a guidebook of services and resources for those lacking critical support networks. West Hollywood sponsored one of the country's first AIDS awareness campaigns in 1985, and its actions through grants, social services, and employment protection is recognized as a model for AIDS response all over the world. West Hollywood has been a leader in the fight for marriage equality, passing a resolution in support of same-sex marriage and performing hundreds of civil ceremonies for couples.

In response to the 2020 justice uprisings, the City formed a Social Justice Task Force to increase engagement and amplify the voices of Black, Indigenous, and People of Color. The Task Force will collaborate with the City Council to develop policy recommendations to address systemic racism within the city. This past April, the City released a Cultural Equity Statement, confirming the City's commitment to arts programming reflective of all identities and the equitable allocation of resources.

What WeHo Climate Action will do

West Hollywood's commitment to the dignity and respect of all people extends to its climate action and adaptation agenda. West Hollywood occupies unceded Tongva territory, which once featured vibrant freshwater marshes and wetlands. For generations the Tongva people stewarded this land, building an ancestral knowledge of practices that benefit all its inhabitants: people, plants, and animals. Therefore, future climate actions must incorporate Tongva leadership. West Hollywood is committed to building a relationship with the Tongva that extends beyond the community engagement processes informing this plan, that includes advocating for and resourcing regional tribal fire management practices, leading soil restoration efforts, and transitioning green spaces to native and edible landscapes.

WeHo Climate Action promotes public realm investments that are responsive to the needs of all residents, no matter age, gender, or ability. The expansion of multi-modal zero carbon transport leads to greater mobility and opportunity for all people. The deployment of new cooling and permeable surfaces will prioritize areas with high proportions of older adults and low-income individuals. Financial and technical assistance to support decarbonization and electric vehicle readiness ensures access to new technologies is not restricted by socioeconomic status.

2.2.2

Housing Security and the Climate Crisis

Housing security is a critical element of a comprehensive climate action and adaptation strategy. A mix of factors contribute to a household's housing security, including housing costs, neighborhood quality, overcrowding, residential stability, houselessness, and housing conditions.⁴

Climate-related disasters, like fires or floods, can force displacement. Those living in older housing stock or those experiencing houselessness are especially at risk, as they may lack proper physical protection from the elements. Low wealth households may also lack the economic resources to recover from disasters. Federal relief may be delayed or carry eligibility requirements that cannot be met by undocumented immigrants or renter households.

A household's ability to cover its utility costs factors into housing security. During extreme heat events, a working air conditioning system can be the difference between managing heat stress and a visit to the emergency room. Older housing stock can lack the proper thermal envelope to adequately protect residents from outside conditions. During times of high wildfire risk, utility operators may temporarily shut off power to prevent ignition from the electric system. Households dependent on powered medical equipment need access to backup power sources to avoid disastrous consequences.

Spatial mismatch between jobs and housing contributes to long commutes for workers. When these routes are not properly serviced by public transportation, this leads to a greater dependence on fossil fuels. Strict separation of land uses through historic zoning policy, a common trait of the Southern California region, also contributes to this issue.

Discussions of housing security experienced today connect directly to the housing discrimination experienced by people of color in years past. Institutionalized racism, in the form of restrictive covenants and redlining, forcibly segregated neighborhoods. Predatory lending created precarious financial situations for families of color who were able to buy a home. The generationslong impact of these policies is seen in current patterns of homeownership today.

J. Leopold, M. Cunningham, L. Posey, and T. Manuel. (2016). Improving Measures of Housing Insecurity: A Path Forward. The Urban Institute. https://www.urban.org/sites/default/files/publication/101608/improving_measures_of_housing_insecurity.pdf.



The Crisis in West Hollywood

With its central location, thriving business community, and cultural vibrancy, West Hollywood is a highly desirable and expensive place to live. However, this demand can translate into high housing costs for residents. 45 percent of West Hollywood households pay 30% or more of their income on housing costs, which is defined as cost-burdened by the Department of Housing and Urban Development. Almost 80% of the West Hollywood population are renters, making them particularly vulnerable to any changes in demand in the housing market.⁶

There is limited space available for new housing development, increasing the need to retain existing affordable units. The 1985 Ellis Act is a state law that allows landlords to evict residential tenants from their properties if they decide to leave the residential rental industry. As of

May 2021, 259 rental properties have been removed from the rental market using the Ellis Act.⁷, many of which have been converted to single-family homes or demolished entirely.

Nearly 91 percent of the city's housing stock is over 30 years old, the point at which most buildings are in need of major structural or electrical upgrades.⁸ Seismic retrofits are of particular concern with West Hollywood's common soft-story buildings with "tuck-under" parking.

According to the 2020 LAHSA Homeless Count, 112 people are unsheltered in West Hollywood. Compared to the rest of Los Angeles County, West Hollywood has a higher percentage of LGBTQIA+-identifying individuals and individuals living with AIDS/HIV in its unsheltered population.¹⁰

⁵ United States Census Bureau. (2020). American Community Survey 2019 (5-year estimates) - Housing Units by Housing Costs as a Percentage of Household Income in the Past 12 Months.

⁶ United States Census Bureau. (2020). American Community Survey 2019 (5-year estimates) -Total Population In Occupied Housing Units By Tenure.⁵ United States Census Bureau. (2020). American Community Survey 2019 (5-year estimates) - Housing Units by Housing Costs as a Percentage of Household Income in the Past 12 Months.

City of West Hollywood. (2016). Housing Report. https://www.weho.org/Home/ShowDocument?id=35010.

City of West Hollywood. (2013). 2013-2021 West Hollywood Housing Element. https://www.weho.org/home/showdocument?id=15165.

Use Angeles Homeless Services Authority. (2020). 2020 Homeless County by Community/City. https://www.lahsa.org/data?id=45-2020-homeless-count-by-community-city.

West Hollywood Human Services & Rent Stabilization Department. (2019). 2019 West Hollywood Homeless Demographic Survey Results. https://weho.granicus.com/MetaViewer.php?view_id=22&clip_id=3465&meta_id=180427#:~:text=This%20is%20the%20most%20surveys,were%20unhoused%20in%20West%20Hollywood.

What the City is doing

Like with many other structural inequities, the COVID-19 pandemic exacerbated housing security concerns. In March 2020, the City adopted a moratorium on evictions related to COVID-19 financial impacts and implemented a rent freeze for all occupied rent stabilized units. The Rent Stabilization and Housing Division transitioned its tenants' and landlords' rights workshops to an online format to continue their public education efforts. Of the city's 25,537 housing units, nearly 75% are subject to the Rent Stabilization ordinance.11

As far as new development, the Inclusionary Housing Program mandates that in projects greater than 10 units, 20 percent of new residential development is deed-restricted for low- and middle-income households. Projects with 10 units or fewer have the option to pay in-lieu to the City's Affordable Housing Trust or build inclusionary housing onsite. Funds collected by the trust fund are used to support non-profit housing developers in the construction of fullyaffordable properties. Between 2013 and 2020, the City has added 1941 affordable housing units (deed and non-deed restricted) to serve low-income households.12

The City is active in the fight to reform the Ellis Act, through a partnership between the Rent Stabilization and Housing Department, Legal Services and Legislative Affairs, and the City's legislative advocate in Sacramento. In 2017, City Council approved legislation to increase funding for future lobbying efforts. The most recent proposal backed by the City would extend the relocation period to a full year for all households in a complex with at least one older adults or tenant with a disability.

The West Hollywood Homeless Initiative is a collaborative, multi-agency effort to address houselessness. The City of West Hollywood's Five-Year Plan to Address Homelessness in Our Community, supported by Measure H funding, outlines the initiative's guiding principles and goals, including connecting at-risk individuals with the local network of service providers, collaborating with other municipalities on the Westside, and training city staff and contractors on proper engagement protocols.

Additionally, colonial violence has created economic and social conditions that have contributed to climate change and harm Indigenous people's resilience. Indigenous people today face significant poverty and housing challenges. Locally, it was shared that many Indigenous people lack access to housing. Many of the Tongva we spoke with shared the heartache about not being able to afford to live on their homelands. They shared their need to be able to access affordable housing. The Healthy LA Native Survey in 2016 found that 1 out of 5 Tongva and non-Tongva Indigenous people were temporarily houseless (staying temporarily with friends/relatives) and 1 out of every 7 Tongva and non-Tongva Indigenous people were houseless (living in a hotel, shelter, or vehicle).

"To be Tongva it is kind of hard at times for people to say they are connected to place because we can never afford a place or afford to park in a place or go to events in our place."

- L. Frank

What WeHo Climate Action will do

WeHo Climate Action encourages housing upgrades that both increase energy and water efficiency and decrease utility costs. The City will explore the creation of a Retrofit Accelerator Program, which would offer financial and technical assistance to building owners looking to decarbonize their properties. The more these processes can be streamlined, the faster tenants can realize the financial benefits. Upon recovery from the COVID-19 pandemic, the City will also work with landlords of existing buildings to consider, establish, and implement retrofit measures that support low-carbon heating and cooling options to maximize occupant comfort. Continuing to implement state and local sustainability standards in new construction also ensures the future tenants can stay protected from the elements.

United States Census Bureau. (2020). American Community Survey 2019 (5-year estimates) - Housing Units; City of West Hollywood. (2016). Housing Report. https://www.weho.org/Home/ShowDocument?id=35010.

City of West Hollywood. Housing Element Annual Progress Report (2020). https://weho.granicus.com/MetaViewer.php?view_id=22&clip_id=3607&meta_ id=201876



2.2.3

Public Health and the Climate Crisis

Climate change raises both acute and chronic public health concerns. The quality and conditions of indoor and outdoor environments can impact how West Hollywood's residents experience these health consequences. Population-level health outcomes vary with demographic factors such as age, race, sexual orientation, and socioeconomic status. Early in its days as an incorporated city, West Hollywood demonstrated its commitment to protecting the health of LGBTQIA+ residents in its emphatic response to the HIV/AIDS epidemic. The City was one of the first municipalities to provide social services grants to local HIV/AIDS organizations and launched the first public awareness campaign in 1985. During the recent COVID-19 pandemic, social distancing concerns may have and may continue to prevent individuals from seeking necessary medical attention. Factoring health into climate policies and programs is necessary to effectively address health inequities.

Physical Health in West Hollywood

Outdoor air pollution can come from a variety of sources: automobile exhaust, pollen from trees and flowers, and smoke from wildfires. West Hollywood's vibrant restaurant and nightlife scene attracts visitors from all across the region, bringing frequent tourism-related vehicle trips. The southwest portion of the city is in close proximity to the Salt Lake Oil Field and Beverly Center drilling island.

The California Healthy Places Index (HPI)'s Clean Environment Score evaluates communities based on the average levels of four common environmental pollutants: fine particles in the air (PM2.5), ground-level ozone, diesel particulate matter in the air (DPM), and groundwater contamination. West Hollywood is in the 26th percentile, meaning 74 percent of other California cities have healthier air conditions.¹³

Overexposure to these environmental pollutants can increase the risk of heart disease, stroke, and respiratory illness. Young children, older adults, and those with preexisting cardiovascular conditions are especially at risk. Adults over 65 years old make up 15.3 percent of the city's population, and 7 percent of the city's youth are diagnosed with asthma.¹⁴

Extreme heat days in West Hollywood are projected to increase by 15 days annually by mid-century and by 20 days by the late century, according to the low emissions scenario. ¹⁵ In the high emissions scenario, the figures increase to a rise of 21 days by mid-century and 39 days by late-century. Extreme heat events can induce a stress response in the body, such as heat cramps, heat exhaustion, or heat stroke. Without proper medical attention, these illnesses can inflict permanent damage. Older adults are at heightened risk, particularly if they are physically and/or socially isolated from family, friends, community groups, and public agencies.

Urban areas, due to their relative lack of greenery and collection of heat-trapping surfaces, are hot-spots for retaining heat. This is sometimes referred to as the urban heat island effect. For a person without access to a car, a robust network of street trees, parklets, and other shade interventions is vital to avoid heat stress while walking to their local amenities.

During the pandemic, people limited time in usual gathering places to avoid the heat, such as public facilities and restaurants. Staying home proved difficult for households who lack air conditioning or who are unable to cover the increased energy bill.

The California Healthy Places Index (HPI). Public Health Alliance of Southern California. https://map.healthyplacesindex.org/

WeHo CAAP – Community Conversations; West Hollywood: Community Health Profile. Los Angeles County Department of Public Health. http://publichealth. lacounty.gov/ohae/docs/cchp/pdf/2018/WestHollywood.pdf.

¹⁵ Buro Happold. West Hollywood Climate Action and Adaptation Plan: Climate Vulnerability Assessment 2020, pg. 10.



Mental Health in West Hollywood

Climate change not only affects a person's physical well-being but can also have a deep impact on their mental health. Increased frequency of extreme climate events can cause or exacerbate anxiety, depression, or post-traumatic stress. Related trauma and loss for frontline communities forced to relocate after a disaster can include fractured social networks or acculturation stress. An individual does not need to directly encounter an extreme climate event to experience associated mental health effects. "Eco-anxiety" describes the feeling of helplessness, stress, or social withdrawal associated with fear around the future of climate change and its impacts on food access, heat stress, and other complications.¹⁶

Fifteen percent of West Hollywood's residents, compared to the County average of 9 percent, have been diagnosed with depression.¹⁷ Economic instability and social concerns related to the COVID-19 pandemic heightened health anxiety during this time. The additional strain on the healthcare system can inhibit the ability of those most in need to receive necessary counseling.

Exposure to extreme heat can trigger unhealthy coping mechanisms or aggressive behavior, like suicidal behavior, substance abuse or domestic violence. ¹⁸ Psychotropic medications can alter a person's ability to regulate their body temperature, increasing risk for heat-related illness.

Access to green space has positive mental health benefits. Parks can be incredibly restorative and calming for visitors and can reduce feelings of anxiety, stress, and depression.¹⁹

One Tongva person shared, "My relationship to place is interrupted by concrete, private property, and freeways." Another participant added, "A restorative relationship to place would be reconciling and reintroducing the native people to an uninterrupted connection to our homelands and homewaters. A ceremony. A grieving process to acknowledge when we were taken from our language and our lands." This disconnection from the land has led to mental, spiritual, emotional, and physical harm.

¹⁶ Klinenberg, Eric. Heat Wave: A Social Autopsy of Disaster in Chicago. University of Chicago Press. 2002.

LA County Department of Public Health. http://publichealth.lacounty.gov/ohae/docs/cchp/pdf/2018/WestHollywood.pdf.

⁸ How Extreme Weather Events Affect Mental Health. American Psychiatric Association. https://www.psychiatry.org/patients-families/climate-change-and-mental-health-connections/affects-on-mental-health.

¹⁹ Bell S, Hamilton V, Montarzino A, et al. (2008). Greenspace and quality of life: a critical literature review. Greenspace Scotland. http://www.openspace.eca.ed.ac. uk/wp-content/uploads/2015/10/Greenspace-and-quality-of-life-a-critical-literature-review.pdf.

What the City is doing

The City of West Hollywood is committed to creating a healthier future for all residents. In 2019, the City Council approved the Urban Forest Management Plan that outlines a 20-year plan for the future of the city's trees. These efforts include regularly updating an inventory of public trees, engaging public and nonprofit leaders to develop a Tree Stewardship program, and educating private property owners on proper tree management practices. The Citywide Parklet Program invited local businesses and community groups to propose designs for small community spaces, which helps integrate West Hollywood's network of open space into the urban fabric. As part of the first round of entries, three final designs were approved with plans to reevaluate the program at a future time.

Investment in infrastructure for cyclists and pedestrians serves a dual public health purpose. These alternative forms of transportation reduce greenhouse gas emissions related to short trips and are great ways to stay active. The 2017 Pedestrian and Bicycle Mobility Plan identifies four mobility corridors on which to focus infrastructure improvements like bike lanes, wayfinding signs, and curb extensions.

The City contracts with several non-profit agencies to provide mental health programming including behavioral health case management, therapy, and outpatient psychiatric supportive services. The City also collaborates closely with the Los Angeles County Department of Mental Health (DMH) and the Los Angeles Sheriff's Department (LASD) on our City contracted Mental Health Evaluation Team (MET). The MET team, comprised of a licensed mental health clinician and a specially trained LASD Deputy, engage with both housed and unhoused community members experiencing mental health crises to provide support, crisis intervention, linkage to community based outpatient services, or psychiatric placement when needed.

As part of the City's COVID-19 reponse, Recreation Services coordinated the City's Wellness Check initiative for West Hollywood's older adults. A wellness check consisted of a call to older members of the community to ensure they have access to food, medication, and other essential supplies. This outreach maintains feelings of connectivity during this period of isolation and helps to identify those most in need of extra assistance.

What WeHo Climate Action will do

WeHo Climate Action introduces actions that will improve air quality, protection from heat exposure, and improve mental health outcomes. Resilience hubs and cooling centers help West Hollywood community members, particularly those from frontline communities, access the resources they need to avoid climate-related health consequences. To build community adaptive capacity, the City will develop a community climate action toolkit with information on how to best prepare for climate emergencies.

Promoting electric vehicle use and pedestrian and bike infrastructure investments contributes to lowering greenhouse gas emissions as well as better outdoor air quality. WeHo Climate Action also proposes to expand the urban tree canopy and community green spaces, where possible. Investing in a desirable public realm and safe streets encourages West Hollywood residents to be more active, delivering both physical and mental health benefits.



2.2.4 Food Access and the Climate Crisis

Every aspect of a food system, from production to distribution, intersects with the climate crisis. The food supply chain uses fossil fuels to power farming equipment, process produce and animal products, manufacture packaging, refrigerate goods, and transport items to their final destination. Modern farming practices rely heavily on pesticides and fertilizers, making food production one of the primary causes of water pollution.²⁰ This pollution, combined with the over extraction of natural resources and climate change, also contributes to the loss of biodiversity critical to food security. Key plants and animals essential to maintaining healthy soil, pollination, controlling pests, and providing safe habitats are at risk of extinction. Without integrating sustainable practices to increase the resiliency of our food system, existing food insecurities can worsen.

²⁰ Celikkol Erbas, B., & Guven Solakoglu, E. (2017). In the presence of climate change, the use of fertilizers and the effect of income on agricultural emissions. Sustainability, 9(11), 1989.

Food Access in West Hollywood

Food security is a comprehensive concept that describes a household's ability to access safe, sufficient, and nutritious food that meets their dietary needs at all times. ²¹ Barriers to food security can come in a variety of forms, from lack of household income to limited healthy market locations to poor public transportation options.

In the Western portion of Los Angeles County, 28 percent of individuals have limited access to groceries (defined as those more than ½ mile away from a grocery store). Demand at Westside food pantries has risen over 85 percent since 2008. Economic instability related to COVID-19 exacerbated existing anxieties.

Sixteen percent of eligible West Hollywood residents receive CalFresh, more commonly known as the Supplemental Nutrition Assistance Program (SNAP).²³ CalFresh helps stretch limited food budgets by providing monthly assistance to low-income households for groceries. Notably, its eligibility criteria include citizenship status, meaning that CalFresh excludes a significant portion of immigrant households, especially those who are undocumented.

Statistics on food assistance do not always convey the full scope of food insecurity. Marginal food security, also known as hidden food stress, describes households who experience regular anxiety over where their next meal will come without drastic changes to their diets.²⁴ Children in households with marginal food security are 56 percent more likely to be in fair or poor health, 60 percent more likely to be at risk for developmental issues, and report lower test scores.²⁵

Families who fall into this grey area may not be aware of the food assistance programs available to them or may have incomes that make them ineligible for federal assistance. In a place with a high cost of living, like West Hollywood, households may find themselves in precarious situations even when earning a substantial income.

For those who walk or rely on public transportation, carrying large amounts of groceries or other essential goods is taxing. Carrying a week's worth of filtered water can prove difficult, forcing individuals to make difficult choices between what they need most. Limited seating or tree coverage along main streets makes traveling for groceries particularly difficult during times of high heat.

West Hollywood has a limited supply of available land while having a high demand for development. Resources that add value to the existing community, such as community gardens, compete with more profitable land uses.

As underscored during a series of conversations with representatives of the Tongva community, Indigenous groups have recognized the connection between the sustainable cultivation of food and mental and physical health benefits for generations. ²⁶ Beyond producing fresh produce, community gardens can foster greater social cohesion amongst neighbors. Concerns over contamination from the Salt Lake Oil Field necessitate soil rehabilitation before any additional land is converted into sites for food production.

International Food Policy Research Institute. (n.d.). Food Security. https://www.ifpri.org/topic/food-security#:~:text=Food%20security,%20as%20defined%20 by an%20active%20and%20healthy%20life.

Neighborhood Data for Social Change. (2019). Food Insecurity in Western Los Angeles County. KCET. https://www.kcet.org/shows/city-rising/food-insecurity-in-western-los-angeles-county.

²³ City of West Hollywood. (n.d.). CalFresh. https://bit.ly/3tlNwol.

²⁴ United States Department of Agriculture. (n.d.). Definitions of Food Security. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx.

²⁵ Children's HealthWatch. (2015). Hidden Food Stress. http://childrenshealthwatch.org/wp-content/uploads/Hidden-Food-Stress-Report-Card.pdf.

Pueblo Planning and Sacred Places Institute for Indigenous Peoples. (2021). Conversations with Tongva and Non-Tongva Urban Indigenous Peoples: Climate Change, Adaptive Capacity, and Traditional Ecological Knowledge.

What the City is doing

The City of West Hollywood is committed to uplifting the work of the area's nonprofits, food pantries, and other related programs focused on strengthening food security. The City launched an effort last year to increase awareness of CalFresh benefits. The Jewish Family Services of Los Angeles (JFS), thanks to support from Cedars-Sinai, is expanding its capacity to help West Hollywood residents by guiding potential recipients through the application process.

In 2014, the City launched the Edible Parkway Gardening program, which encourages private property owners to convert their public parkway strips into edible gardens. Working with Hope Gardens Landscaping, the City produced a guide outlining the herbs, fruits, and vegetables that thrive in these spaces.

In response to the "Safer at Home" Public Health directive during the pandemic, the City created the Temporary Grocery Delivery program, specifically targeting older adults and those with disabilities. Participants can order grocery delivery straight to their homes, ensuring those without family or friends close by can still access the food they need.

What WeHo Climate Action will do

Through its support of green infrastructure, increased mobility access, and waste reduction, WeHo Climate Action seeks to address concerns of food security voiced through the community listening sessions. West Hollywood is committed to creating a communitywide green infrastructure plan that includes identifying the interstitial spaces where food cultivation can take place. These community gardens also can serve as spaces for the sharing of traditional ecological knowledge with the local Tongva community. Ancestral understanding of the soil remediation and native crops is key for building sustainable food practices. Incentivizing private landowners to incorporate green infrastructure on their properties further extends the reach of this network.

Wild pollinators, like bees and butterflies, enable the crop fertilization our food systems depend on to survive. As part of WeHo Climate Action's measure to nurture green spaces, the City will explore creating habitat gardens to support local pollinators. Even in an urban setting, West Hollywood has the capacity to be a hotspot for Southern California's biodiversity.

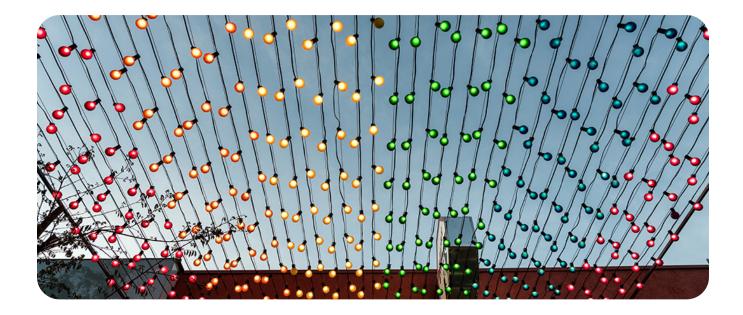
Large-scale organic waste diversion demands a comprehensive public education strategy. The City will support educational programming on composting, while phasing in organics recycling requirements pursuant to CalRecycle mandates. Sustainable waste practices create opportunities for increased food recovery, meaning more food may be directed to the families who need it most.

WeHo Climate Action features robust actions dedicated to supporting and expanding sustainable modes of transit, including implementing a shared electric vehicle network, continuing investments in bike infrastructure, and creating a more pedestrian-friendly public realm. All of these actions are steps towards ensuring no West Hollywood resident is forced to go without groceries due to their access to transportation.

Chapter 3

Introduction

- 3.1 2035 Vision
- 3.2 West Hollywood Context
- 3.3 State Legislation
- 3.4 WeHo Climate Action Goals and Targets
- 3.5 WeHo Climate Action Process



3.1 Our Vision for the Year 2035

It is June 2035. West Hollywood can proudly declare that it has achieved carbon neutrality, just as the global community has rallied to meet the objectives of the Paris Climate Agreement. Although the most severe impacts of climate change have been averted, summer heat waves are more intense than they used to be - but the City is prepared. Every neighborhood has cool and attractive places to gather, where residents can meet their neighbors while having respite from the heat. There are also numerous resilience hubs and mini-hubs throughout the City where residents can go to obtain information, services, programming for youth and older adults, and emergency supplies when needed.

West Hollywood is much quieter than it was in the era of internal combustion engines. Electric transit vehicles and micromobility vehicles provide longer-distance travel options for individuals who primarily walk or bike to meet their daily needs in the 15-minute city. Another reason for the sensory calm is the tree canopy - West Hollywood's urban forest is amongst the lushest in L.A. County, a reflection of diligent stewardship by City arborists, residents, and businesses alike. All across the City, rainfall is captured where it falls and is used to irrigate native and drought-tolerant landscapes. Birds, butterflies, and other pollinators thrive along the interstitial green spaces on rooftops, alleys, and sidewalks. West Hollywood has lessened its dependence on imported water, and contributes to vastly improved water quality in the region's underground aquifers and the Santa Monica Bay.

Buildings in West Hollywood have undergone changes that once seemed radical. All-electric appliances are both affordable and fashionable, and the buildings have been made climate-resilient and futureproof with upgrades to weatherization and insulation, smart thermostats, and high efficiency heat pumps. Climate awareness is so great that residents, homeowners associations, and property managers treat heat mitigation and energy and water efficiency as essential maintenance, and make provisions for them with the help of the City's Retrofit Accelerator. Real estate agents even promote zero carbon and climate resilience features to prospective tenants.

Throughout its history from 1982 through 2035, West Hollywood has led the way on society's greatest social issues, from LGBTQIA+ rights to renter protections to leading the fights against the HIV/AIDS epidemic, houselessness, and global climate change. In seeking to make progress towards environmental sustainability and social equity, City government leaders have also sought to build a restorative relationship with the Tongva people, a long-term process built upon reciprocity. As a result of these efforts and others by the City residents with a diverse spectrum of gender expressions, ethnic, and socioeconomic backgrounds are thriving in West Hollywood and it is a place where the Tongva people can live, gather, engage in ceremony, and be connected with the land once again.



3.2 West Hollywood Context

History

West Hollywood is located on unceded Tongva/Kizh territory and is situated between two Tongva/Kizh villages, Kuruvunga and Kawee'nga. A large portion of the land where West Hollywood is located once had freshwater marshes and wetlands filled with life; the land was a significant site for ceremony, food, and provided plants for shelter and transportation.²⁷

The City's present-day political boundaries are shared by the City of Beverly Hills to the west, and the City of Los Angeles to the north, east, and south. West Hollywood has amongst the greatest population density in Los Angeles County, with more than 36,000 people residing within its 1.89 square miles. That density is accompanied by a compact urban form that allows residents to have a lighter environmental footprint relative to surrounding communities; small dwellings with shared party walls consume less energy and the tight-knit street grid and mixture of uses contribute to the most walkable city in California.²⁸

West Hollywood was an unincorporated community throughout most of the 20th century. This allowed the community to exist outside the jurisdiction of the Los Angeles Police Department, an attribute that attracted many gay, lesbian and genderqueer-identifying people to migrate to the community. West Hollywood also became a landing point for immigrants from the Soviet Union. In 1984, Los Angeles County was planning to sunset rent control, and a coalition of LGBTQIA+ activists, older adults, and renters organized to advocate for cityhood and maintain protections for renters who were at risk of displacement. Residents soon voted to incorporate as the City of West Hollywood, and swiftly passed rent control measures.²⁹

West Hollywood's City Council in 1984 was the first majority gay governing body, and became known for championing progressive causes and LGBTQIA+ culture. The City has been at the leading edge of LGBTQIA+ rights, civil rights, and human rights; women's rights; HIV and AIDS advocacy; affordable and inclusionary housing; animal rights; and environmental protection.



Climate Justice in West Hollywood

West Hollywood was founded by a diverse coalition of residents, and this diversity is central to the city's identity to this day. The City is committed to maintaining a high quality of life for all its residents, including but not limited to its LGBTQIA+ community, aging population, gender non-conforming residents, Russian-speaking community, indigenous community, and renters. Climate justice acknowledges that climate change is not just an environmental issue but an issue with social, political, and economic implications as well. Therefore, any climate actions pursued by the City must mitigate the consequences disproportionately experienced by marginalized communities.

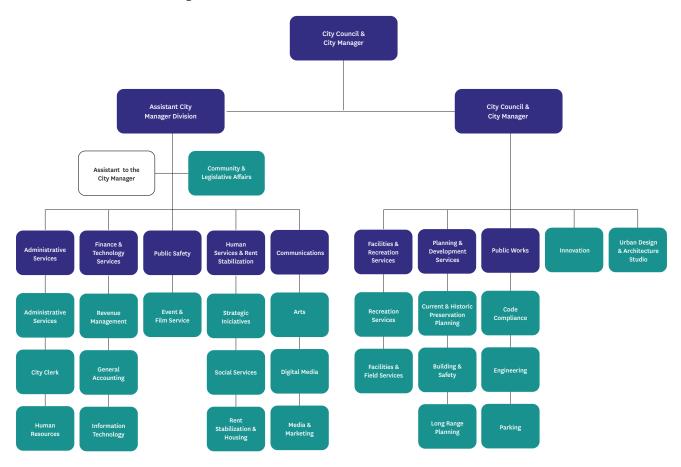
²⁷ Pueblo Planning. Conversations with Tongva/Kizh and Non-Tongva/Kizh Urban Indigenous Peoples.

²⁸ walkscore.com/CA

visitwesthollywood.com/history-of-west-hollywood/

Governance

West Hollywood has a Council-Manager form of government, with five elected members of the City Council including a rotating mayoral position. The City Council and City Manager oversee the activities of nine City Departments and more than twenty City Divisions, as summarized in the organizational chart below.



As a "contract city," West Hollywood contracts certain municipal services from other sources; for instance, law enforcement is provided by the Los Angeles County Sheriff's Department, fire protection is provided by the Los Angeles County Fire Department, and waste hauling is provided by Athens Services. Similarly, water service is provided to the east side of the City by the Los Angeles Department of Water and Power, and to the west side by Beverly Hills Water. Without direct control, a greater level of coordination with municipal and regional partners is necessary when establishing climate action goals related to contracted services.

The City actively communicates and collaborates with these partners. For example, West Hollywood has demonstrated its commitment to reducing energy use through its participation in the Westside Energy Partnership. This partnership consists of six cities, Southern California Edison, and SoCalGas, creating a space to share best practices and promote the adoption of clean energy. In the transportation sector, West Hollywood joined a coalition of Westside stakeholders to lobby Metro to expand its light rail service, through its #FinishTheLine initiative. Years of advocacy and community outreach has proved successful as Metro is now exploring three potential routes for the Crenshaw Northern Extension project, which increases critical transit access for West Hollywood residents.

The City also engages in coordinating regionwide responses to climate challenges with the Los Angeles County Chief Sustainability Office and the Southern California Association of Governments, and works to secure funding for active transportation improvements with the Westside Cities Council of Governments. The City will continue to leverage its positive working relationships with agencies and partners of all scales to realize its progressive mitigation and adaptation goals.

Sustainability Programs and Policies

The City of West Hollywood is a national leader in climate action, having made significant progress towards the greenhouse gas reduction targets within its 2011 Climate Action Plan, while implementing various interrelated environmental sustainability and adaptation objectives outlined in the 2011 General Plan. The 2011 CAP set an emissions reduction goal of 20 to 25 percent below 2008 emissions levels by 2035. Between 2008 and 2018, the City already reduced its GHG emissions by 31%, surpassing the goals outlined in the 2011 CAP (Figure 1). These achievements were made possible by various program and planning efforts undertaken by the City, including¹:

- The City's Green Building Program, first introduced in 2005, was directed towards private development within the city with a focus on promoting "highachieving" green building projects. This program was updated in 2019 to include guidelines for site planning and design, energy efficiency, water efficiency and conservation, materials conservation, and environmental quality, in new residential and non-residential projects.
- West Hollywood's residential, commercial, and construction and demolition waste is managed by Athens Services. Under the 2014 Integrated Solid Waste Management Services Agreement, Athens committed to increase the overall hauler diversion rates to 50% by 2020, 60% by 2025, and 70% by 2030.
- The 2017 Pedestrian and Bicycle Mobility Plan outlines priority projects and strategies for improving the city's streetscape. These strategies aim to make roadways more comfortable, safe, and inviting to pedestrians and bicyclists of all ages and abilities, while also mitigating transportation related emissions.

- The 2018 Hazard Mitigation Plan consists of two main components – a risk assessment and a mitigation strategy. The Plan is founded on the idea that organization, preparation and awareness can reduce the impacts of dam failure, earthquake, extreme heat/drought, flash flooding/storms, flooding, high winds/straight line winds, landslides, wildfires, and energy/utility emergencies.
- The 2019 Urban Forest Management Plan outlines goals for managing City-owned trees and defines specific plans for maintaining and enhancing the city's urban forest over the next 20 years. The plan also discusses current issues and needs, related to tree diversity, infrastructure conflicts, education programs, and urban forest management.
- The City updated its travel demand model in 2017 to implement Senate Bill (SB) 743 to update the City's California Environmental Quality Act (CEQA) methodology and thresholds for traffic impact analysis. This model informs transportation inventory and mitigation measures in this CAAP, and also serves as the foundation for 2018 Transportation Demand Management Ordinance.

West Hollywood General Plan 2035

The West Hollywood General Plan consists of specific goals and policies that guide the city's long-term development in response to its unique needs. The measures in the General Plan are organized into various elements such as Land Use, Housing, Safety, and Mobility, and their implementation is monitored on an annual basis. Since climate change is a cross-cutting issue, measures relevant to climate mitigation and adaptation are addressed within many General Plan elements. These include policies supporting multi-modal transportation in the Mobility and Land Use Element; energy efficiency, waste reduction, and water conservation requirements in the Infrastructure, Resources, and Conservation Element; and urban forest and open space augmentation in the Parks and Recreation Element. Furthermore, the creation of a Climate Action Plan and subsequent updates were required under the Infrastructure, Resource, and Conservation Element.

¹ For more information on climate action implementation prior to this plan update, please visit http://www.weho.org/climateaction.



3.3 State Legislation

The State of California has adopted numerous policies aimed at dramatically reducing its GHG emissions. West Hollywood is committed to being an active partner in implementing the state's climate mitigation and adaptation goals and targets. Listed below are the key policies that define California's climate targets and which will influence climate action in West Hollywood.

Climate Mitigation and Adaptation

Climate Change Scoping Plan

The Climate Change Scoping Plan was approved by ARB in December 2008 and outlines the State's plan to achieve the GHG reductions required in AB 32. The Scoping Plan contains the primary strategies California will implement to achieve a reduction of 169 MMT of carbon dioxide equivalent (CO2e), or approximately 28% from the state's projected 2020 emission level.

Assembly Bill 32 (2006)

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, requires California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 directs the California Air Resources Board (ARB) to develop and implement regulations that reduce statewide GHG emissions. AB 32 requires ARB to adopt a quantified cap on GHG emissions that represents 1990 emissions levels, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement tools to assist the State to achieve the required GHG emission reductions.

Executive Order S-3-05

Executive Order S-3-05 (EO-S-3-05) recognizes California's vulnerability to reduced snowpack in the Sierra Nevada Mountains, exacerbation of air quality problems, and potential sea level rise due to a changing climate. To address these vulnerability concerns, the executive order established targets to reduce GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050.

Senate Bill 32 (2016)

Senate Bill (AB) 32 expands upon the Global Warming Solutions Act of 2006, requiring the California Air Resources Board (CARB) to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050.

Executive Order B-55-18

Executive Order B-55-18 set a target of statewide carbon neutrality by 2045 and to maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions.

Senate Bill 379 (2015)

SB 379 requires all cities and counties to include climate adaptation and resilience strategies in the Safety Elements of their General Plans upon the next revision beginning January 1, 2017. The bill requires the climate adaptation update to include a set of goals, policies, and objectives for their communities based on the vulnerability assessment, as well as implementation measures, including the conservation and implementation of natural infrastructure that may be used in adaptation projects.



Energy and Buildings

Senate Bill 1078 (2002) and 107 (2006) and Executive Order S-14-08

SB 1078 requires retail sellers of electricity to provide at least 20% of their supply from renewable sources by 2017. Since then, the Renewable Portfolio Standard (RPS) has been accelerated several times. SB 107 changed the target date to 2010, Executive Order S 14 08 expands the state's Renewable Energy Standard to 33% renewable power by 2020, Senate Bill 350 extended the RPS to 50 percent by 2030, which was followed by SB 100.

Senate Bill 100 (2018)

SB 100 revises the goal of the California RPS Program to achieve that 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. The bill requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030.

Building Energy Efficiency Standards - Title 24

California's Building Energy Efficiency Standards are designed to reduce wasteful, uneconomic, inefficient or unnecessary consumption of energy, and enhance outdoor and indoor environmental quality. These codes apply to newly constructed buildings and additions or alterations to existing buildings. The codes are revised every three years. The 2019 Energy Standards are a major step towards meeting the State's Zero Net Energy (ZNE) goal, and took effect on January 1, 2020.

Transportation

Assembly Bill 1493 (2002)

AB 1493 requires ARB to develop and adopt regulations to reduce GHG emissions from passenger vehicles, light-duty trucks, and other non-commercial vehicles for personal transportation. In 2004, ARB approved amendments to the California Code of Regulations adding GHG emissions standards to California's existing standards for motor vehicle emissions.

Executive Order S-1-07 (2007)

EO-S-1-07 establishes a Low-Carbon Fuel Standard to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10% by 2020.

Senate Bill 375 (2008)

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan. Qualified projects consistent with an approved SCS or Alternative Planning Strategy and categorized as "transit priority projects" receive incentives under new provisions of the California Environmental Quality Act (CEQA).

Advanced Clean Cars Program (2012)

This program combined the control of smog-causing pollutants and GHG emissions into a single coordinated package of regulations to guide the development of environmentally advanced cars. In 2017, CARB initiated the development of standards for model years after 2025. Advanced Clean Cars II is currently in process to establish the next set of low and zero emission vehicle requirements to contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality targets.



Senate Bill 743 (2013)

SB 743 was passed in 2013 and implemented in 2018 through the adoption of new CEQA regulations, or guidelines for conducting transportation impact analysis. The updated guidelines provide a new performance metric, vehicle miles travelled (VMT) as a basis for determining significant transportation impacts under CEQA. VMT would replace level of service (LOS) of the primary impact threshold under CEQA; however, cities can still retain the ability to use LOS for operational purposes. While LOS often required wider roads as a mitigation measure, projects expected to induce significant increases in VMT will be able to mitigate their impacts through measures such as car-sharing services, unbundled parking, improved transit, and enhanced pedestrian and bicycle infrastructure.

Assembly Bill 2127 (2018)

AB 2127 requires the Energy Commission to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of greenhouse gases to 40% below 1990 levels by 2030.



Waste Management

Senate Bill 1383 (2016)

SB 1383 requires the state to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40% below 2013 levels by 2030, as specified. The bill also established specified targets for reducing organic waste in landfills by reducing organic waste disposal 50% by 2020 and 75% by 2025 and increasing edible food recovery by 20 percent by 2025.

Assembly Bill 341 (2012) and Assembly Bill 1826

AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week and all multi-family apartments with five or more units are also required to have a recycling program in place. This effort is to meet the state's recycling goal of 75% by the year 2020. AB 1826 requires all commercial businesses to collect yard trimmings, food scraps, and food-soiled paper for composting businesses will be required to collect yard trimmings, food scraps and food-soiled paper for composting. Multifamily buildings with five or more units will be required to collect yard trimmings as well.

Other Sectors

Senate Bill 1383 (2016)

SB 1383 requires the state to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in hydrofluorocarbon gases by 40% below 2013 levels by 2030.

Senate Bill 7 (2009)

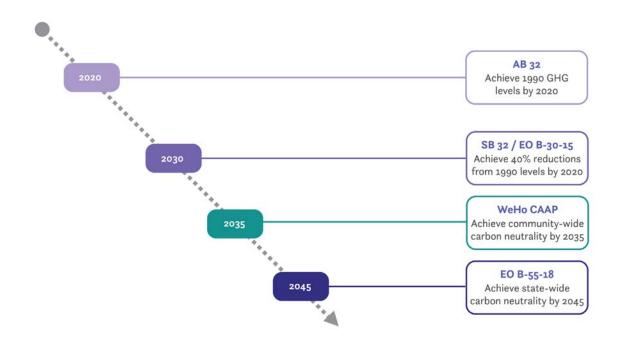
SB 7 requires the state to achieve a 20% reduction in per capita urban water use by December 31, 2020. The state is required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. SB 7 requires each urban retail water supplier to develop both long-term urban water use targets and an interim urban water use target. SB 7 also creates a framework for future planning and actions for urban and agricultural users to reduce per capita water consumption 20% by 2020.

3.4 WeHo Climate Action Goals and Targets

Excessive emissions of greenhouse gases have created significant changes in our climate. Climate change has shifted and modified weather patterns, leading to environmental, social, and economic impacts worldwide. These impacts are becoming more frequent and severe, and their consequences are disproportionately felt by underserved and underrepresented populations. Impending climate change risks have created a sense of urgency in the global scientific community, resulting in the 2018 International Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C. In this report, the international compendium of scientific experts concluded that to avoid severe risks from climate change, global warming must not exceed 1.5°C above pre-industrial levels. To attain this target, net zero emissions must be achieved by mid-century (2045-2055). In response to IPCC's report and the Paris Climate Agreement, in 2018 California adopted an executive order which set a goal for achieving state-wide carbon neutrality by 2045.

Cities have a critical role to play in the fight against climate change, as they contribute upwards of 70% of global emissions. Understanding its role in the fight against climate change, and heading the scientific community's call to action, this Climate Action and Adaptation Plan sets a **target of achieving community-wide carbon neutrality by 2035.**To further align with state requirements and goals, West Hollywood is setting interim targets for 2025 (see Appendix C). This will ensure that the city is on track to surpass Senate Bill 32's 2030 target of achieving 40% reductions from 1990 levels. The overall goal of aligning with scientific consensus and ambitious political targets is to minimize climate change induced risks, while allowing the West Hollywood community to build equity-based climate adaptation and resilience.

This Climate Action and Adaptation Plan sets a target of achieving community-wide carbon neutrality by 2035.



3.5 WeHo Climate Action Process

In 2011, West Hollywood adopted its first Climate Action Plan as part of an implementation measure from the 2035 General Plan. The 2011 CAP set an emissions reduction target of 20 to 25 percent below 2008 emission levels by 2035. By 2017, the City implemented 75% of the action items from the 2011 CAP, and by 2018, the City reduced its GHG emissions by 31%, surpassing the 2035 target outlined in the 2011 CAP years ahead of schedule.

WeHo Climate Action continues the vision of sustainability and resilience set by the 2011 plan, while centering equity in the challenge to meet community needs in the face of a changing climate. The plan incorporates the State's progressive targets for GHG reductions, as well as aligning with State goals to increase the capacity of local jurisdictions to respond to increasing climate hazards like extreme heat, wildfire, extreme precipitation, and more.

The consultant team, led by Buro Happold, reviewed West Hollywood's existing policies, programs, and climate conditions to map the City's current status. This comprehensive review included collecting best practices in climate action planning from other progressive cities and climate leaders. A vulnerability assessment reviewed the most pressing climate hazards and their effects on West Hollywood. This assessment is included in Appendix B. To establish new GHG reduction goals, Buro Happold conducted a GHG inventory analysis that reviews emissions across multiple industries and sectors. This analysis is accompanied by an emissions forecast that includes a Business as Usual scenario and a Carbon Neutral by 2035 scenario, to help identify sector-specific emission reductions the City will need to take in order to meet its goal of carbon neutrality.

A combination of the best practices and community input informed the formation of draft actions. In February 2021, these draft actions were shared with City personnel, individuals engaged through earlier activities, and the public at large through an interactive platform with the ability to add comments and leave feedback. These insights shaped the list of actions included in the draft plan. A full draft of the report was shared once again for another round of online feedback in August & September 2021.



Outreach and Engagement

Overview

As a people-centered plan, outreach and engagement was critical to crafting climate actions that best address the needs of the West Hollywood community. Scheduled to begin in March 2020, original plans for outreach included thoughtful, in-person interactive methods of engaging specific subpopulations in West Hollywood (e.g., older adults, Black, Indigenous, and other People of Color, lowwealth individuals, immigrants, the Indigenous community, people who are unhoused, LGBTQIA+ youth, etc.) at specific city events and in gathering spaces already familiar to these groups. Several rounds of listening sessions and feedback workshops with at-large community stakeholders and city staff were also planned.

Due to COVID-19, City staff and the consultant team worked together to reimagine the outreach and engagement plan for WeHo Climate Action. Outreach and engagement pivoted to leverage existing communication channels used by social service providers and city staff (modified for rapid response needs during the height of the pandemic) to capture targeted feedback from specific sub-populations, mainly via phone and/or via physically distanced in-person interviews. These one-on-one interviews were supplemented with virtual outreach methods including surveys to provide feedback at a desired pace.

For this project, the City engaged Pueblo Planning to work with Sacred Places Institute to co-develop an engagement effort for Tongva and non-Tongva Urban Indigenous Peoples, which included a tribal community information and listening session, an online climate adaptation survey and needs assessment, and one-on-one interviews.

The City also partnered with Inner & Outer Engagement, who conducted phone interviews with representatives from Advisory Boards and Commissions, social service practitioners serving the West Hollywood community, climate change experts from the Greater Los Angeles area, youth groups and leaders, city staff, property owners, the business community, utility providers, and the wider West Hollywood community. In November 2020, the City convened two separate working sessions with City staff and regional climate experts, presenting findings from Buro Happold's technical analyses as well as the collective outreach and engagement efforts, inviting participants to provide input on WeHo Climate Action.

Finally, the City encouraged community members to share their thoughts related to climate action and adaptation through a variety of at-large outreach channels. The community participation section of the WeHo Climate Action project webpage included opportunities to provide feedback via the WeHo Climate Action Hotline or online survey, which were cross-advertised via press release, social media, and other City webpages.

Initial feedback from all of the aforementioned outreach and engagement methods were incorporated into preliminary (draft) climate measures, which were published on the Konveio platform for 30 days in February-March 2021. Community input received from these methods was subsequently incorporated into the draft plan. The following sections contain additional detail on each of these outreach and engagement methods:

The stakeholder engagement process yielded the following key findings, organized by category:

Phone Hotline and Interviews

In order to reach community members who could potentially be most impacted by climate change, Pueblo Planning created flyers with information on how residents could get involved via phone in the CAAP process. A City phone number with an answering machine was set up for people to call and leave their contact information. Pueblo Planning followed up with these individuals and conducted the needs assessment interview. To distribute flyers, Pueblo Planning strategically coordinated with community-based organizations (CBOs) and City and County departments that have on-going relationships with the targeted population. City staff was incredibly important in making these connections for Pueblo Planning and arranging conversations that helped Pueblo Planning codevelop with engagement partners how the outreach efforts could be most impactful. People who called the hotline participated in an in-depth 30 minute conversation regarding their lived experiences and its relationship to "climate adaptive capacity." Participants also shared how the City can better prepare and support them with future climate change disruptions.

Sacred Places Institute Partnership

Through a partnership with Sacred Places Institute for Indigenous Peoples (SPI), Pueblo Planning co-developed engagement efforts. SPI connected Pueblo Planning with Indigenous communities living on Tongva territory to better understand how the City can incorporate greater collaboration and leadership from the original stewards of this land. For this project, SPI facilitated engagement with Tongva and non-Tongva Urban Indigenous peoples; this was distinct from the kinds of government-to-government consultations that are conducted as part of CEQA processes. SPI identified Tongva and non-Tongva Indigenous people living in the Tongva Basin; the staff of SPI had pre-existing relationships with these individuals which had been developed through years of trust and respect. The historic nature of this engagement effort cannot be stressed enough: a landless tribe being asked to engage in this type of planning process is extremely rare.

SPI organized one tribal community information and listening session with 15 people to co-define climate resilience and "being in the right relationship" with place and people. Individuals who participated were from one or more of the following tribes: Tongva, Chumash, Hupa, Cahuilla, Acjachemen, Choctaw, Creek, Cherokee, San Ildefonso Pueblo, Navajo, and Standing Rock Sioux Tribe. Additionally, Pueblo Planning worked with SPI to develop an online climate adaptation survey and needs assessment. To facilitate an inclusive community research process, this survey has been designed to be delivered in group settings. The goal is for families or households to be able to reflect together on the central themes in order to identify climate adaptation needs. Lastly, the Pueblo Planning team interviewed five multigenerational Tongva people about the connection between climate change and adaptation and their relationship to place, cultural traditions, and colonial violence. These interviews were recorded and curated to uplift personal and shared narratives and inform this. An audio collage was created from these recordings.

"I think what is so special to me is that our nations don't look at nature as wild or look at it as resources. We look at it as relatives. Would you be constantly taking from your mother or would you be giving to your mother? So that relationships, that reciprocity, is so important and that is something that is really missing in today's society."

- Tina Calderon

One-on-One Interviews and Group Listening Sessions

Inner & Outer Engagement conducted a series of oneon-one meetings with City staff, appointees to the City's Commissions and Advisory Boards, local business leaders, and other community members. Prior to the one-on-one meetings, all individuals who were invited to the cancelled Listening Sessions were asked to complete a "temperature check" survey to understand how they were doing amidst the pandemic era and gauge their willingness to participate in the WeHo Climate Action process at that time. Each interviewee received a selection of these questions based on their particular areas of expertise and leadership a few days before their respective meeting. Participants were also provided with a publicly-accessible presentation prepared for West Hollywood City Council in July 2020 by the project team, and nearly all had completed the "temperature check" survey. Even with these materials, the one-on-one meeting agendas were purposely open-ended as to allow participants to share as wide-ranging of feedback as they saw fit. A complete list of participants can be found in the project team acknowledgements section of this report.

Regional climate practitioners and West Hollywood city staff were engaged through respective 90-minute workshops. These groups responded to specific presentation topics and questions, with breakout discussions utilized for regional climate practitioners. The feedback received was more targeted around topics understood as most directly adoptable through the Plan.

Community Survey

After one-on-one conversations and workshops, a Community-at-large Survey was developed and deployed through the City of West Hollywood's communication channels, yielding nearly a hundred responses from people who live in, work in, and/or have a significant connection to WeHo. Survey questions were strategically developed to address CAAP topics, barriers to mitigation and adaptation, and community experiences that merited further discussion beyond what was shared in one-on-one conversations and workshops. The survey included multiple fields for respondents to write about their experiences. This yielded a wide range of feedback about how mitigation and adaptation-related actions should be strengthened, and on cross-cutting topics that local stakeholders recognize as top priorities.



Findings Summary

The following pages summarize key findings from all of the outreach and engagement activities, organized by theme:

Indigenous Perspectives

Through the engagement process, Pueblo Planning and Sacred Places Institute tried to uncover not only the ecological history of where the City of West Hollywood is now located, but also to understand the general principles, practices, and pathways defined by Tongva and non-Tongva Urban Indigenous People in order to help guide climate action and adaptation efforts. Entities like the Intergovernmental Panel on Climate Change have recognized Indigenous rights and climate action are inherently intertwined because Indigenous peoples have over generations amassed crucial knowledge about living and caring for ecosystems in a sustainable manner.

The engagement process revealed key practices, principles, and actionable steps towards a restorative relationship to both places and people whose homelands West Hollywood is on. Applying a "traditional ecological knowledge (TEK) framework" to both understand and organize what had been shared, several opportunities emerged. Fundamentally, reframing the concept of "sacred places" encourages a more holistic relationship between the City and its natural environment. Rather than identifying specific sacred sites for protection, an indigenous perspective encourages a view that sacred places are everywhere there is life – and should be treated as such. Many Tongva and non-Tongva Urban Indigenous People shared that they desired increased access to sacred spaces, ceremonial sites, and gathering locations.

The City of West Hollywood can play an important role in advocating and supporting more Indigenous-led stewardship, specifically around controlled burns in the adjacent hills and management of the adjacent water table. Additionally, sequestering carbon in soil through traditional ecological knowledge-based land management practices is an effective and natural way to remove carbon dioxide from the atmosphere. At the same time, it creates opportunities for restoring soil to support nutrient-rich edible landscapes.

Building the relationship between the City and the Indigenous community is embracing reciprocity, and respecting Indigenous perspectives demands greater representation in future decision-making processes with respect to climate change. This will help to illuminate the gaps in Western

approaches to climate action and adaptation, while supporting Indigenous communities through the recovery process from colonial violence.

Social Cohesion

With the coronavirus pandemic in mind, a wide array of participants wanted to see climate measures that cultivate greater connectedness and care amongst West Hollywood's communities, which would make them more resilient in the face of climate and public health crises. People identified actions that would support closer relationships amongst neighbors, such as creating community gardens, shifting neighborhood watch groups away from policing and towards groups that focus on community care and support, and creating upcycling and swap events. Many respondents named that feeling connected to community means the ability to attend local events, frequent parks and playgrounds, shop at local farmers markets, and engage in activism and/ or protests. This illustrated the importance of public spaces and their role in enhancing a sense of community, social connection, and ability to thrive in place.

Participants also emphasized communication and diverse representation, specifically calling for younger and more diverse voices on City Committees, Commissions, and Advisory Boards. They wanted to see climate action and adaptation messaging that is honest and reflective of local communities' culture and identities, including the centering of LGBTQIA+ communities who were integral to West Hollywood's founding legacy as a safe community for queeridentifying people. Local leaders stressed the importance of maintaining direct communication channels with residents, such as telephone reassurance programs, particularly for older adults and people with disabilities.

Many people supported the idea of creating Resilience Hubs – central locations with information and resources – even if not all of them were familiar with the term. Participants liked the idea of a physical command center that is supported by the City government and community-based organizations, knowing that they have a place to rely upon during an emergency. They noted that these spaces should also be accessible for people who do not feel safe at home and provide related resources around domestic violence support.

Housing insecurity is widely understood as the greatest ongoing emergency facing West Hollywood. Nearly all participants provided feedback around the need to help residents and businesses remain in place, noting that housing stability and small business retention are key to community resilience. Suggestions included measures to improve housing security and support the small businesses that matter most to LGBTQIA+ and other marginalized communities.

Mobility and the Public Realm

Private vehicles are a major source of greenhouse gas emissions in West Hollywood, and their current dominance amongst transportation modes exacerbates inequalities and mobility inefficiencies. People engaged in WeHo Climate Action shared a strong vision for a campus-like environment that prioritizes accessible, interconnected, and multimodal mobility options. This vision acknowledges and addresses the ways in which mobility systems have historically perpetuated unsafe experiences for LGBTQIA+, women, gendernonconforming, and BIPOC peoples.

Improving the safety, comfort, and experience of non-motorized travel is crucial to support decarbonization of the transportation sector and improve health outcomes. Participants specifically wanted to see protected bike lanes and micromobility priority areas that create spaces where cyclists can more confidently travel. People identified bike lending libraries with a diversity of options (traditional bicycles, electric bikes, cargo bikes, etc.) to make cycling more accessible and allow more households to adopt a carlite or car-free lifestyle.

Participants were overwhelmingly supportive of actions to improve public life, noting that West Hollywood did not have enough public spaces that allow residents to gather. Outdoor dining, which became a popular adaptation for West Hollywood restaurants during the coronavirus pandemic, was widely supported as were other actions to limit vehicular use on key corridors.

Most participants recognized that high-heat days are already increasing and stressed the urgency of addressing their impacts. To provide safe and comfortable experiences for people who ride public transportation, people wanted to see investments in alleviating heat stress in the public realm, including street trees, bus stop canopies, other shade structures, and cooler surfaces. Additionally, strategically placed benches and seating implements were emphasized as important resting places for people who walk, particularly for older adults. Participants wanted to see these investments prioritized on the Eastside and in areas with higher proportions of older adults and low-wealth individuals.

Finally, participants supported electric vehicle adoption as a method for reducing greenhouse gas emissions. Since West Hollywood has limited street space, some transportation experts suggested that expansion of electric vehicle charging networks would require the use of existing infrastructure such as street lamps and utility boxes. Additionally, they suggested curb management software to reduce traffic and make better use of limited curb space.

Natural Environment

West Hollywood's tree canopy was a frequent topic of discussion, largely focusing on its role in providing alleviation from heat, as well as trees' contribution to the City's biodiversity. People flagged the apparent decline in tree canopy on private property, and stressed that land use policies need to balance tree planting with the need to increase the City's housing supply at various income levels. Participants wanted to see an upgraded tree planting guide with recommendations for specific areas, with a focus on tree planting in areas where there is less shade. They acknowledged that shade may need to be provided in the form of shade structures around certain public seating areas. Finally, some participants suggested that the City needs to create a broader strategy to prevent the loss of native biodiversity, including fauna and flora beyond trees.

Not as much feedback was offered around water, but several stakeholders referred to sustainable water management practices that could reduce stormwater runoff, including rainwater collection and reuse, and water submetering for individual residences.

Energy

Participants expressed widespread support for climate measures that would decarbonize existing buildings and ensure that future developments are net zero carbon. Many people noted that multifamily buildings, most of them with rental apartments, comprise most of the building stock in West Hollywood and must be the focus of any retrofit programs. Participants noted that decarbonization retrofits should be done all at once where possible, including electric vehicle charging infrastructure, and that the City could act as an important connector between building owners, renters, incentive programs, and contractors. They mentioned policy levers such as reducing permitting fees.



Participants also saw an opportunity for the City to be proactive with regards to infrastructure resilience, working directly with SoCal Edison and telecommunications providers to improve local power and internet reliability. In its own facilities, the City could pair solar photovoltaic systems with on-site energy storage.

While most participants stated that they did not currently own an electric vehicle, they suggested that improving the network of publicly accessible EV chargers would bolster EV adoption, and the City could also lead by example by having an all-electric vehicle fleet. In the public right-of-way, the City could leverage existing infrastructure such as streetlights or utility boxes, and/or negotiate easements to incorporate publicly accessible charging infrastructure into new development projects.

Waste

Participants were supportive of measures to move the City towards a zero waste future. They noted a desire for organics collection and recycling while identifying many associated barriers, including lack of adequate space within and around their homes, as well as lack of knowledge, equipment, and collection services. Those familiar with State mandates around organics recycling noted that the City could improve education and engagement around the subject, and potentially appoint compliance officers to help enforce those mandates.



Chapter 4

GHG Emissions Inventory and Emission Scenarios

- 4.1 Municipal GHG Emissions Inventory
- 4.2 Community-scale GHG Emissions Inventory
- 4.3 Emission Scenarios



Introduction

One of the primary objectives of this Climate Action and Adaptation Plan is to identify pathways for reducing local GHG contributions from the City of West Hollywood. This chapter summarizes the methodology for accounting 2018 GHG emissions from community and municipal activities and operations; a full methodology memo is included in Appendix A. The 2018 inventory serves as the foundation for projecting emission trends and informing measures and sub-actions that the City needs to implement to achieve carbon neutrality by 2035.

The City of West Hollywood developed its first GHG emissions inventory for the year 2008 to inform the 2011 Climate Action Plan. Within the plan, GHG measures were designed to achieve an overall reduction of 25% by 2035 compared to baseline values. While the 2021 Climate Action and Adaptation Plan uses 2018 as the baseline year for assessing progress towards carbon neutrality, it is important to note that significant strides have been taken since the initial inventory and plan were created.

Since 2008, the City of West Hollywood has made significant progress in reducing both municipal and community-wide GHG emissions. These achievements were made possible by local actions for conserving energy and water, reducing and diverting waste, improved mobility, as well as implementation of state policies such as the renewable portfolio standard, building energy efficiency requirements, and vehicle fuel efficiency improvements. Some of these major GHG achievements are highlighted below.

Fast Facts: 2008 to 2018 GHG Emissions in West Hollywood

31%

Decrease in the City's communityscale emissions since 2008 despite a 6% increase in population The City's per capita emissions declined from 9.2 CO2e per capita in 2008 to 6.0 CO2e/ person, far exceeding the 2011 target.

31.5%

Reduction was achieved in West Hollywood's largest contributing sector - stationary energy. In 2008, this sector accounted for 60% of all emissions

24%

Reduction in municipal GHG emissions from the City of West Hollywood compared to the City's 2008 baseline

50%

decrease in electricity related municipal GHG emissions largely due to cleaner grid-supplied electricity, onsite generation, and energy efficiency improvements in City's facilities and operations

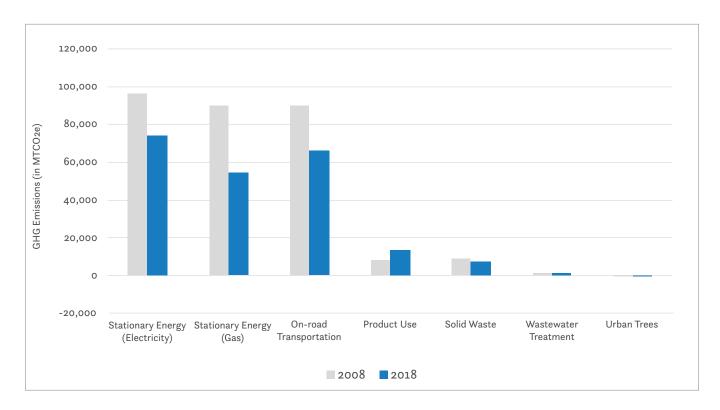


Figure 1: Comparison of 2008 to 2018 community-wide GHG emissions by sector.

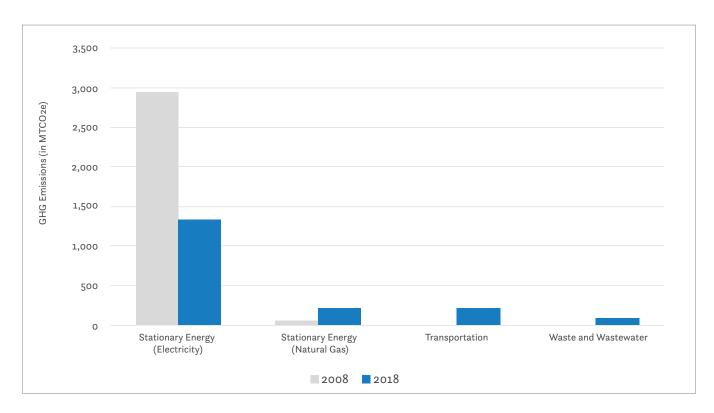


Figure 2: Comparison of 2008 to 2018 municipal GHG emissions by sector. Transportation and waste and wastewater were not included in the 2008 assessment of municipal GHG emissions.

4.1 Municipal GHG Emissions Inventory

The municipal inventory includes emissions from city-owned and operated buildings, streetlights and traffic signals, vehicle and transit fleet (including public EV chargers), and other employee activities (such as commuting, business travel, waste generation, and water consumption). In 2018, municipal GHG emissions from the City of West Hollywood were 2,270 MTCO2e as shown in Table 1 (see also Appendix A), which is 24% lower than the City's 2008 baseline. Electricity related emissions decreased by half, largely due to cleaner grid-supplied electricity, on-site generation, and energy efficiency improvements in City's facilities and operations. In coming years, building and fleet electrification will be necessary to reduce municipal GHG emissions.

Category	Scope	2008 Emissions (in MTCO2e)	2018 Emissions (in MTCO2e)	Change from 2008
Electricity	2 and 3	2950	1312	-55%
Vehicle Fleet	1	0	661	Cannot be compared
Natural Gas	1	52	210	+305%
Waste	3	0	73	Cannot be compared
Water + Wastewater	3	0	14	Cannot be compared
TOTAL		3,002	2,270	-24%

^{*} Emissions from select categories, cannot be compared as they were not reported in 2008 GHG inventory

Table 1: 2018 Municipal GHG emissions Inventory

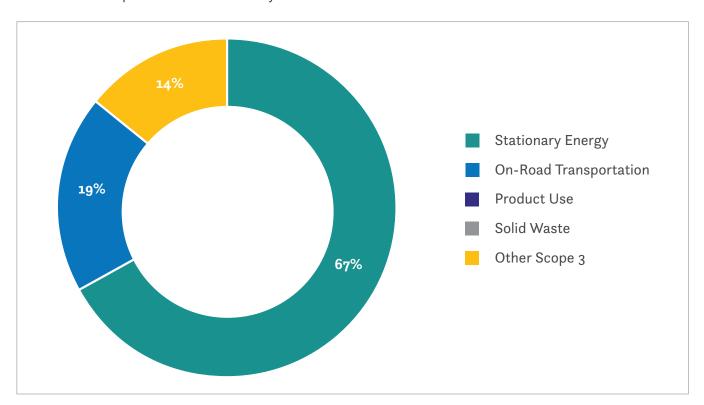


Figure 3: 2018 Municipal GHG Emissions Breakdown.

4.2

Community-scale GHG Emissions Inventory

The City's community-scale inventory includes emissions that are generated due to activities within the city boundary, which are organized into six categories: Stationary Energy, Transportation, Waste and Wastewater, Product Use, Urban Forestry, and Other Scope 3 Emissions (from electricity use for water and wastewater treatment) summarized in Table 2.

Category	Scope	2018 Emissions (in MTCO2e)	Change from 2008
Stationary Energy (Electricity)	2 and 3	73,712	-24%
Stationary Energy (Gas)	1	54,112	-40%
On-road Transportation	1,2 and 3	66,194	-26%
Product Use	1	13,090	+62%
Solid Waste	3	7,021	-18%
Wastewater Treatment	3	676	6%
Urban Trees	1	-255	No Change
TOTAL		214,551	-27%
Water Supply and Treatment	3	6,125	+6%
Wastewater Treatment	3	685	-97%
TOTAL (with other Scope 3)		221,361	-31%

^{*} To allow for one-to one comparison between 2008 and 2018, emissions from select 2008 categories we adjusted or recalculated (see Appendix A)

Table 2: 2018 Community-scale GHG Emissions Inventory

In 2018, community-scale GHG emissions for the City of West Hollywood were 221,361 MtCO2e. Despite a 6% increase in population, the City's community-scale emissions have decreased by 31% since 2008. The City's per capita emissions have dropped from 9.2 to 6.0 MtCO2e, far exceeding the 2011 CAP targets. These achievements were made possible by local actions for conserving energy and water, reducing and diverting waste, improved mobility, as well as implementation of state policies such as the renewable portfolio standard, building energy efficiency requirements, and vehicle fuel efficiency improvements.

In 2018, the stationary energy sector was the largest contributor of GHG emissions, followed by the transportation sector. These two categories collectively make up 91% of emissions, followed by product use (6%) and waste (3%). To achieve carbon neutrality by 2035, the City will need to decarbonize its buildings, electrify transportation, transition to 100% renewable electricity, and divert organic waste from landfills, as is discussed in the next section.

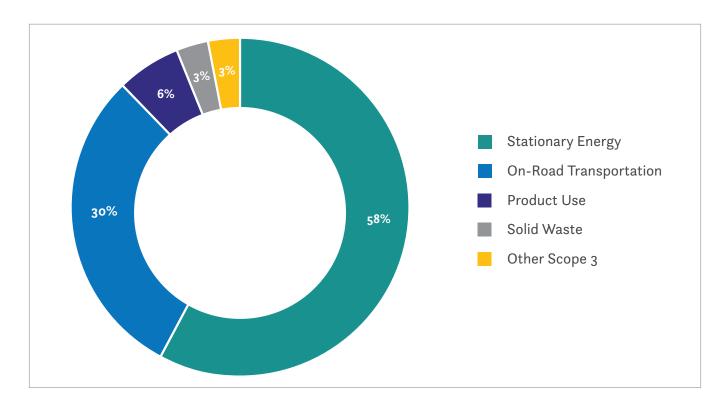


Figure 4: 2018 Community GHG Emissions Breakdown (excluding sectors that represent less than 1% of total emissions: water and wastewater and urban trees).

Emission Sub-categories

Stationary Energy

The Stationary Energy sector includes emissions from energy use in residential, commercial, and institutional buildings and facilities. Emissions from natural gas combustion in buildings, grid electricity consumption in buildings and public electric vehicle (EV) charging, and transmission and distribution grid losses are reported under this sector. The emissions are calculated using electricity and gas consumption data from Southern California Edison (SCE) and Southern California Gas (SoCal Gas), respectively.

Transportation

The Transportation sector reports emissions from fuel combustion in passenger vehicles, light-duty and medium-duty trucks, and public transit systems. The emissions are based on vehicle miles traveled (VMT), which is estimated using modeled data representing the City's travel demand and regional transportation patterns. The VMT data is combined with regional vehicle and fuel mix to calculate emissions from gasoline, diesel, and compressed natural gas use in the City. Emissions from Metro buses and City Public Transit Services (Cityline and Dial-a-Ride) are estimated using fuel consumption data reported by the respective authorities.

Product Use

This sector accounts for hydrofluorocarbon (HFCs), which are synthetic gases that are often used in products like refrigerants, foams, aerosols, fire retardants and as alternatives to ozone depleting substances. HFCs are short lived climate pollutants (SLCPs), which are far more potent than CO2 when measured in terms of their GWP. GHG emissions from HFC use in residential and commercial applications are accounted for using statewide HFC emission factors.

Waste and Wastewater

The Waste sector accounts for emissions associated with the decomposition of waste in landfills and biological treatment at composting and anaerobic digestion. The emissions are estimated using food and green waste tonnage sent to landfills and composting facilities, as reported by Athens Services. Emissions (process and direct biogenic) from wastewater are calculated using water consumption data provided by Los Angeles Department of Water and Power (LADWP) and Beverly Hills Water and emission factors from City of Los Angeles' wastewater treatment plants.

Urban Trees

Trees act as a sink for carbon dioxide by fixing carbon during photosynthesis and storing carbon as biomass. Sequestration (or carbon removal) from urban trees in West Hollywood are estimated using parcel-level tree canopy data for Los Angeles County.

Other Scope 3 Emissions

West Hollywood does not have any water filtration nor wastewater treatment plants within the city boundaries and therefore does not have control over energy-related emissions from water filtration and wastewater treatment. These electricity-related scope 3 emissions are estimated using water consumption data provided by LADWP and Beverly Hills Water and associated grid emission factors from Southern California Edison (SCE).

4.3

Emission Scenarios

In order to achieve carbon neutrality by 2035, the City of West Hollywood would need to reduce and/or offset its emissions by 13,021 MTCO2e or 5.9% per year relative to 2018. This rate of emission reduction will be governed by population and economic growth, federal and State policies, ongoing City programs, and proposed climate measures and sub-actions. To predict the impacts of these factors on GHG emissions, three forecast models or scenarios were created (see Appendix A):

Business-as-usual (BAU) Scenario:

The BAU scenario projects future emissions based on current population and regional growth trends, climate patterns and their impacts on energy use, and regulations (Federal, State, and local) introduced before the 2018 baseline year. BAU projections demonstrate the expected growth in GHG emissions if no further action is taken by the State or at the local level after 2018. Under this "do nothing" scenario, the City's emissions will increase by 6% by 2035, relative to 2018.

Business-as-planned (BAP) Scenario:

BAP projections use the same growth assumptions as the BAU scenario but also account for emissions reduced from existing and proposed regulations that were introduced between the 2018 baseline year and 2021 Climate Action and Adaptation Plan release. The BAU scenario demonstrates a more realistic emission trajectory as it accounts for State, regional, and local actions, such as enrollment in Clean Power Alliance, public transit electrification, and waste diversion plans. This scenario projects a -28% reduction in GHG emissions, relative to 2018, due to policies and actions that have already been adopted or are in the pipeline.

Carbon Neutrality (CN) Scenario::

The CN scenario builds on BAP projections and estimates the emission reduction potential of relevant measures and sub-actions proposed in this Climate Action and Adaptation Plan. It also demonstrates sector-specific pathways to reduce community-wide GHG emissions by -78% by 2035 from 2008 levels, bringing the total emissions to 69,244 MTCO2e, as shown in Figure 5. The main sources of remaining or residual emissions include fossil-fuel based transportation, HFC based refrigerants, and organic waste diverted to landfills. It is anticipated that technological advancements in the future may have the potential to further reduce residual emissions. If these residual emissions cannot be reduced over time in response to changes in community-wide activities, the City will consider the purchase of certified carbon credits (or offsets) to achieve carbon neutrality by 2035. Purchased offsets will be registered in a carbon offsets registry approved by the State of California and/or the federal government for that purpose. Offsets will be prioritized according to proximity to West Hollywood with a preference for regional offsets if and when available.

CAP Measures and Sub Actions	Units	2018	2025	2035	Gap
Transportation and Mobility	MTCO2e	66,194	56,455	39,078	17.7%
Stationary Energy	MTCO2e	127,824	33,474	7,327	3.3%
Product Use	MTCO2e	13,090	16,210	19,093	8.6%
Waste and Wastewater	MTCO2e	7,697	5,297	2,186	1.0%
Other Scope 3 Emissions	MTCO2e	6,810	4,994	2,471	1.1%
Urban Forest (AFOLU)	MTCO2e	-255	-255	-261	-0.1%
Total Emissions	MTCO2e	221,361	116,173	69,894	
Percent Change from 2018 Levels	%		-47.5%	-68.4%	31.6%

Table 3: Carbon Neutrality Pathways by Sector

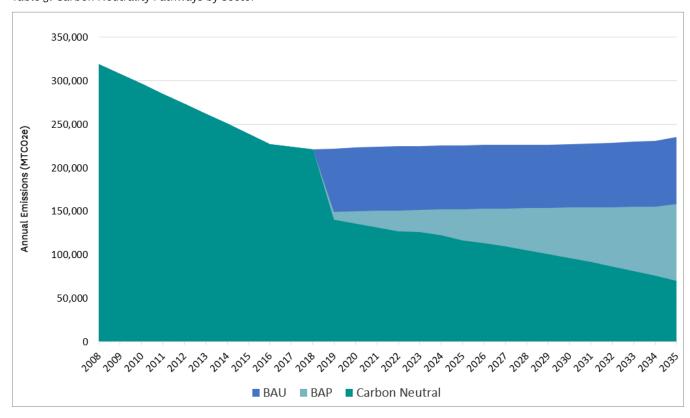


Figure 5: Greenhouse gas mitigation pathways for business-as-usual (BAU), business-as-planned (BAP), and carbon neutral scenarios.

COVID-19 and the Climate Crisis

The ongoing pandemic has affected our livelihoods, behavior, and daily economic activity. These changes have altered GHG emission patterns in 2020 and 2021 across various emission categories discussed in this report. Based on our current understanding of economic shutdowns in the City of West Hollywood, it is safe to assume that COVID-19 led to significant shifts in building energy use, building occupancy, commute patterns, transportation modes, and residential and commercial waste composition and volumes. In the context of this Climate Action and Adaptation Plan, emission reductions in building and transportation sectors are more evident than others. For example, building energy demand in commercial and institutional buildings decreased due to closure of businesses and offices but energy demand in homes and multifamily buildings may have increased as most residents stayed at home. Similarly, transportation emissions from passenger vehicles may have decreased as fewer residents commuted to work, but these emissions may increase if residents prefer passenger vehicles over public transit in the near future.

Covid-19 may have resulted in lower emissions in 2020, but it is very challenging to quantify the mitigation benefits without real activity data (e.g. electricity, gas, fuels, and waste), which is unavailable as of April 2021. These short-term reductions are temporary and there are already signs of recovery which may bring emissions back to pre-pandemic levels. More importantly, emission reductions achieved during the pandemic are a consequence of economic disruptions and personal hardships. These temporary reductions are not a celebration of the City's decarbonization progress and are therefore not accounted towards any of the emission scenarios in this Climate Action and Adaptation Plan. WeHo Climate Action considers opportunities and challenges related to COVID-19 in the implementation timeline to catalyze economic recovery while addressing climate change.

Chapter 5

Climate Risks

- 5.1 Exposure
- 5.2 Sensitivity and Adaptive Capacity
- 5.3 Key Findings

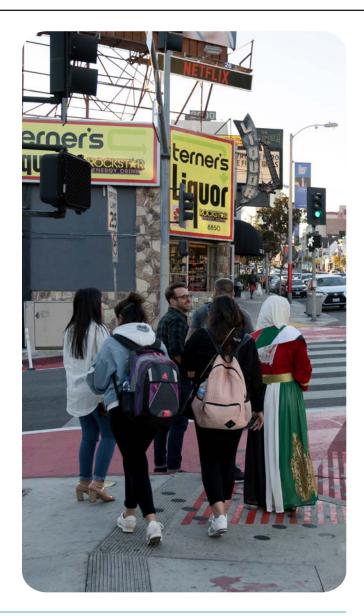
Introduction

Climate vulnerability assessments (CVAs) are an integral part of adaptation planning. They allow communities to gain a baseline understanding of risks, identify the people and places most at-risk to current and future impacts, and inform and prioritize adaptation strategies. To successfully understand a community's vulnerability, it is important to address exposure, sensitivity, and adaptive capacity at various geographic scales and across sub-populations. This assessment considers current climate science and emission scenarios to understand how hazards and their impacts may change over time.

This section summarizes the West Hollywood Climate Vulnerability Assessment (see Appendix B) and highlights key findings for current and projected climate hazards and impacts, risks, and vulnerabilities. This provides the foundation and focus for adaptation goals and actions.

Key Terms

- Vulnerability is the degree to which a system or subpopulation is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.³⁰
- Sensitivity is the degree to which a system or subpopulation is affected, either adversely or beneficially,
 by climate-related stimuli. Climate-related stimuli
 encompass all the elements of climate change,
 including mean climate characteristics, climate
 variability, and the frequency and magnitude of
 extremes. The effect may be direct (e.g., a change in
 crop yield in response to a change in the mean, range,
 or variability of temperature) or indirect (e.g., damages
 caused by an increase in the frequency of coastal
 flooding due to sea-level rise).31
- Exposure is the nature and degree to which a system or sub-population is exposed to significant climatic variations.³²
- Adaptive capacity is the ability of a system or subpopulation to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.³³

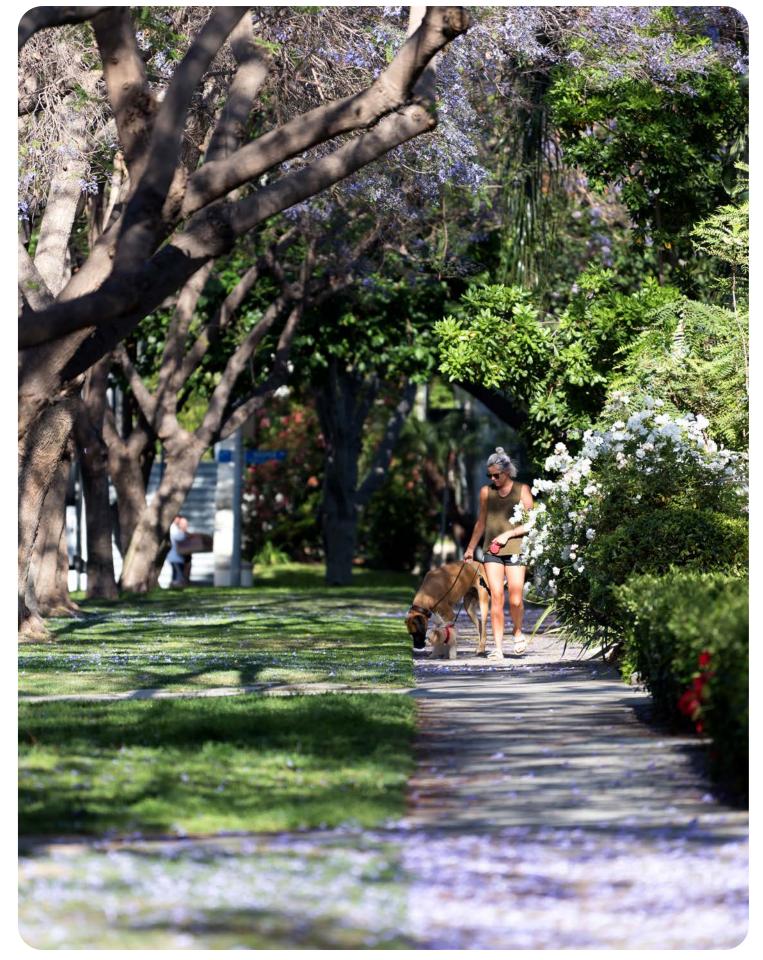


³⁰ IPCC AR4, 2007

³¹ IPCC AR4, 2007

³² IPCC AR4, 2007

³³ IPCC AR4, 2007



5.1 **Exposure**

To understand a community's exposure to climate change, it is important to examine historic events, current conditions, and future projections. Changes in key climate variables like temperature, precipitation, and wind drive variations in the frequency and severity of specific climate exposures. Broadly speaking, the City of West Hollywood is less vulnerable to climate hazards than other communities in the Los Angeles region. The City is expected to have a limited number of climate threats relative to other jurisdictions, but still will face several climate impacts that must be matched with targeted approaches to adaptation.

At 1.89 square miles, the City of West Hollywood is relatively small geographically. The City is expected to experience climate hazards similarly across the entire community, and thus social and structural sensitivities are crucial for determining areas of priority. Still, West Hollywood's exposure to various climate hazards is expected to increase, including heat waves and more intense rain events locally, as well as wildfires and drought regionally.

Extreme Heat

Increasing temperatures and extreme heat events amplify the public health impact on populations most susceptible to extreme heat, add stress to the electrical grid, and contribute to drought conditions and water scarcity. Based on the climate projection scenarios examined in the Climate Vulnerability Assessment, the occurrence, severity, and duration of extreme heat days is projected to increase from 9 days per year to 15–21 days by mid-century, and 20–39 by end of century (Figure 6). Populations exposed to extreme heat, particularly children, older adults, and outdoor workers, are more susceptible to heat-induced illnesses. Extreme heat events can also lead to infrastructure failure, power blackouts, and can overload the region's healthcare system. Recurring extreme heat events combined with low rainfall (and snowpack levels) in the region can likely lead to drought. Extended periods of drought can result in water shortages and disrupt local ecosystems, agriculture, and power supply (hydroelectric).

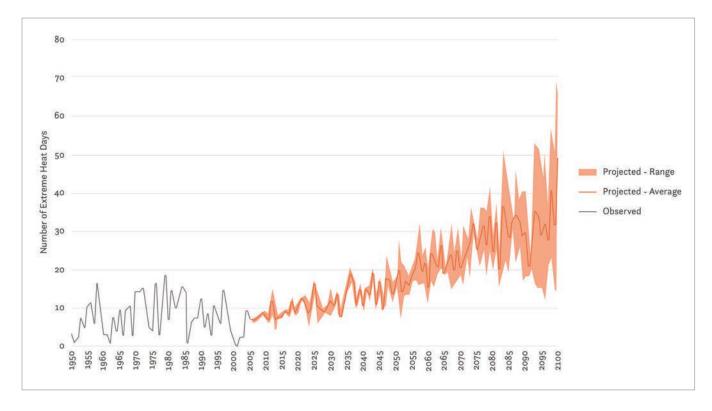


Figure 6: This graph depicts the observed and projected number of extreme heat days in West Hollywood, including a range based on low and high emission scenarios. The threshold for an extreme heat day is 90 degrees Fahrenheit.

Precipitation

Projected wetter and drier precipitation extremes may lead to an increase in localized flooding as well as a larger risk of landslides and wildfires in the region. While average precipitation is expected to remain relatively constant in West Hollywood, the gap between minimum and maximum precipitation is expected to increase leading to wetter and drier extremes. This shifting pattern is likely to increase the severity of wet and dry years and result in whiplash events. Low precipitation can lead to increased drought and wildfires and may potentially result in regional water scarcity. Extreme wet events can cause flash flooding and stress local stormwater and sewer infrastructure systems, whereas abrupt dry-to-wet transitions can increase the intensity of landslides .

Wildfire and Air Quality

West Hollywood is not directly exposed to wildfires, however the city is surrounded by very high fire hazard severity zones. Wildfire events in adjoining communities can impact air quality further exacerbating health impacts for populations more susceptible to changing climate conditions.



5.2 Sensitivity and Adaptive Capacity

Climate change impacts people differently, even within a small geography like West Hollywood. In order to identify priority areas (those of high risk) it is common practice to overlay sensitivity and exposure. Indicators of social sensitivity are used to analyze the degree of sensitivity of various strata of communities. This step is critical in the overall vulnerability assessment and helps inform the region and issue specific adaptation policies, goals and actions.

High-Risk Populations and Adaptive Capacity

West Hollywood has relatively high numbers of older adults, people with disabilities, and people without access to vehicles. These three sub-population groups are more sensitive and likely to be affected by air quality, health, and evacuation issues posed by extreme heat and wildfires. These populations exist predominantly and disproportionately in the eastern part of the city (Figure 8, 9 and 10). When assessing adaptive capacity, Plummer Park, which provides tree canopy and a cooling center, helps mitigate some of these heat vulnerabilities for the local community. However, the neighboring communities to the east and south of the park still have less tree canopy with pockets of higher percentage of renters and multifamily dwellings.

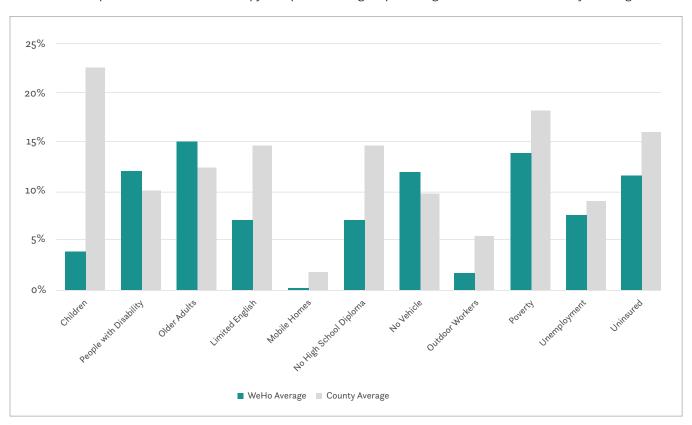
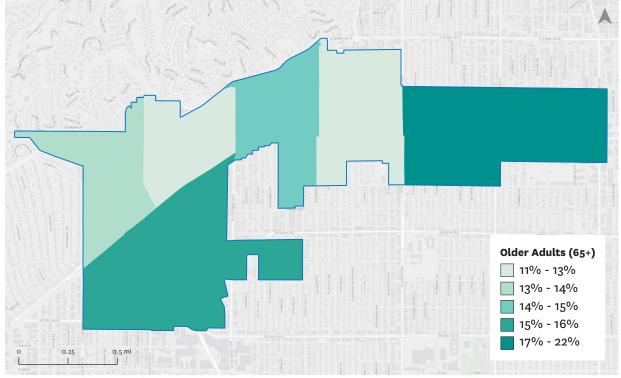


Figure 7: Comparison of key social indicators between West Hollywood and Los Angeles County

Different housing types and ownership can contribute to vulnerabilities. Renters for example, are less secure in their housing. They are less insulated from surges in housing prices and have fewer tenant protections than homeowners. In many places, low income renters may feel pressured to move out as more affluent tenants move in and pay higher rents³¹. West Hollywood's average homeownership rate is 21.3%, significantly lower than the County (45.8%) and national averages (65.1%). Individuals experiencing houselessness are another highly impacted group. Precarious housing, or lack thereof, compound the impacts of nearly all climate exposures, which can lead to increased morbidity and mortality.

³⁴ SPARCC, Protecting Renters from Displacement and Unhealthy and Climate-Vulnerable Housing



Data Source: American Community Survey 2018, 5-year Estimates

Figure 8: Percent of older adults (65+) by census tract in West Hollywood in 2018. Color classes depict quantiles (equal counts) for the region.

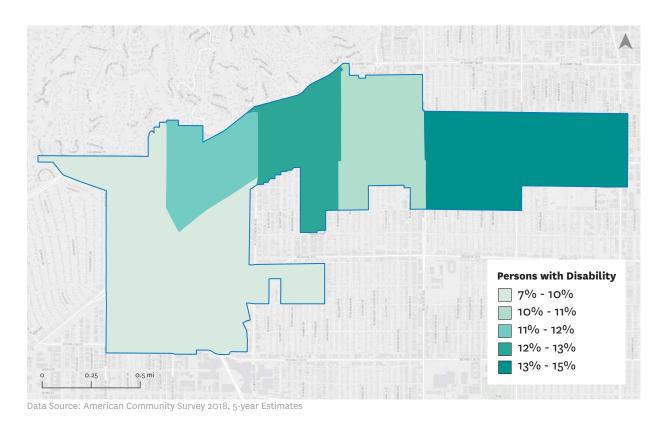


Figure 9: Percent of persons with disability by census tract in West Hollywood in 2018. Color classes depict quantiles (equal counts) for the region.

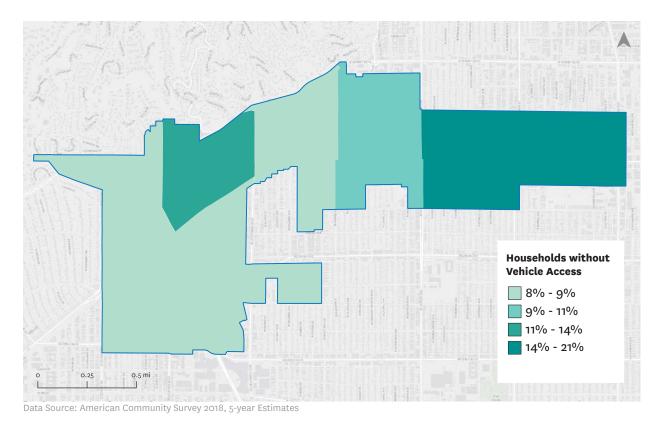


Figure 10: Percent of households without vehicle access by census tract in West Hollywood in 2018. Color classes depict quantiles (equal counts) for the region.

Structural Vulnerability

Structural vulnerability refers to the degree to which physical assets within a community are susceptible to climate hazards. Structural vulnerability assessments focus on (but are not limited to) utility assets, transportation assets, hospitals, public spaces, historic buildings, water supply and stormwater management, schools, and fire and law enforcement departments. These structures and institutions are critical in that they provide necessary services for a community and contribute to its emergency preparedness. For that reason, it is essential to understand not only which climate hazards impact key structures, but also to what degree and how that may change in the future.

Critical public facilities in West Hollywood include City Hall, several parks, a maintenance facility, parking structures, libraries, a police station, and two fire stations. Other critical facilities include schools, religious institutions, senior housing, HIV/AIDS assistance, disability assistance, and low-income housing (Figure 11). A full list of these facilities is listed in Appendix B.

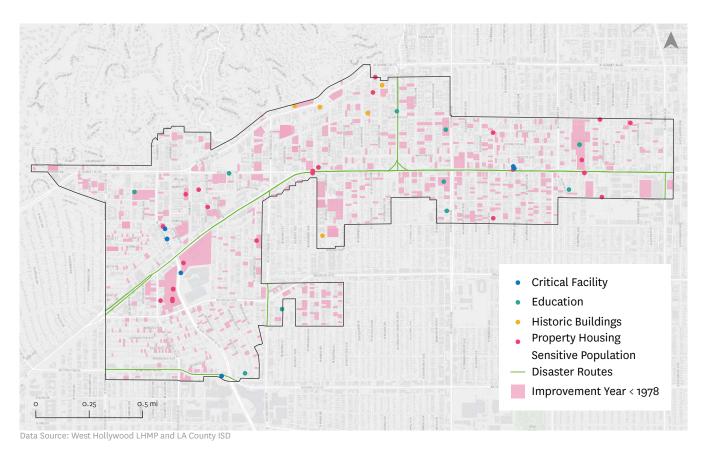


Figure 11: Location of critical facilities and community serving assets in West Hollywood.

Electric grid capacity and resilience will be important as temperatures increase and West Hollywood continues to decarbonize its energy sources and end uses. West Hollywood communities have been impacted by power disruptions with areas experiencing extended power outages at times. Increasing temperatures and potential power disruptions due to wildfire risk may further stress these grid capacity and reliability issues. In turn, opportunities to enhance grid resilience and reduce energy load, such as expanding the adoption of distributed energy resources, are key adaptation strategies to consider.

Water supply in California is largely dependent on temperature and precipitation. Increased variability in precipitation along with rising temperatures and more frequent droughts leads to eventual water scarcity. Snowpack in California mountains provides essential water storage, but earlier warming and lack of precipitation threaten this resource. These projections impact the availability of imported water for both drier and wetter years. Adaptation strategies that consider a combination of water conservation and increasing local water supply and capture will be key to responding to these greater extremes.

Impervious surfaces are surfaces which water cannot penetrate. Most notably, impervious surfaces contribute to urban heat island effects and can worsen the impacts of flooding. These impacts include reductions in water quality, worse erosion, and poor ability to replenish groundwater. Across Los Angeles County, the average impervious surface percentage for census tracts is 59%. West Hollywood census tracts range from 68% to 77%. Areas with especially high levels of impervious surfaces would benefit most from the addition of adaptive measures such as bioswales or parks.



5.3 Key Findings

West Hollywood is less vulnerable to climate hazards than other communities in the Los Angeles region. The city is expected to have a limited number of climate threats relative to other regions, making targeted approaches to adaptation both feasible and effective. Given these circumstances, key findings from the assessment include the identification of areas and people who are particularly at-risk.

Still, West Hollywood's exposure to various climate hazards is expected to increase, including to heat waves and more intense rain events locally, as well as wildfires and drought regionally. West Hollywood is exposed to various hazards resulting from fluctuating heat, precipitation, and wind circulations patterns in the region. At 1.89 square miles, the City of West Hollywood is relatively small geographically. It is expected to experience similar climate hazards across the community, and thus social and structural vulnerability is a crucial tool for determining areas of priority.

Increasing temperatures and extreme heat events amplify the public health impact on populations most susceptible to extreme heat, add stress to the electrical grid, and contribute to drought conditions and water scarcity. Based on the climate projection scenarios examined in this report, the occurrence, severity, and duration of extreme heat days is projected to increase. Extreme heat days are projected to increase from 9 days per year to 15-21 days by mid-century, and 20-39 by the end of the century. Populations exposed to extreme heat, particularly the children, older adults (65+), and outdoor workers, are more prone to heat-induced illnesses. Extreme heat events can also lead to infrastructure failure, power blackouts, and can overload the region's healthcare system. Recurring extreme heat events combined with low rainfall (and snowpack levels) in the region can likely lead to drought. Extended periods of drought can result in water shortages and disrupt local ecosystems, agriculture, and power supply (hydroelectric).

Projected wetter and drier precipitation extremes may lead to an increase in localized flooding as well as a larger risk of landslides and wildfires in the region. While average precipitation is expected to remain constant in West Hollywood, the gap between minimum and maximum precipitation is expected to increase leading to wetter and drier extremes. This shifting pattern is likely to increase the severity of wet and dry years and result in whiplash events.

As discussed, low precipitation can lead to increased drought and wildfires and may potentially result in regional water scarcity. The city is neighbored by very high fire hazard severity zones; wildfires can impact air quality further exacerbating health impacts for higher-risk populations. Extreme wet events can cause flash flooding and stress local stormwater and sewer infrastructure systems, whereas abrupt dry-to wet transitions can increase the intensity of landslides.

West Hollywood has relatively high numbers of older adults, persons with disabilities, and people without access to vehicles. These three sub-population groups are more susceptible and likely to be affected by the changing climate. These vulnerabilities exist predominantly and disproportionately in the eastern part of the city. When assessing adaptive capacity, Plummer Park, which provides tree canopy and a cooling center, helps mitigate some of these heat vulnerabilities for the local community. The neighboring communities to the east and south of the park have lower tree canopy, in part due to limited land availability, with pockets of higher percentage of renters and multifamily dwellings. People without personal vehicles can utilize the City's abundant access to public transit. However, during climate events or emergencies (e.g. heat waves, unhealthy air quality days, flood, etc.), these sub-population groups may find pedestrian and biking infrastructure, and public transit more difficult or dangerous to access. This can often place them at greater risk of exposure. Therefore, it is essential to create targeted solutions for these residents — to minimize hardship and ensure rapid response during urgent events.



WORLD DOG DAY 2021





Chapter 6

Climate Action Roadmap

- 6.1 Overview
- 6.2 Climate Leadership and Governance
- 6.3 Energy
- 6.4 Transportation, Mobility and the Public Realm
- 6.5 Zero Waste
- 6.6 Natural Environment

6.1 Overview

In order to mitigate carbon emissions and adapt to a changing climate, the City intends to move forward with 20 climate measures and 60 sub-actions, organized into five categories, which will enable West Hollywood to achieve carbon neutrality by 2035 and become a more climate resilient city. In this section, these climate measures and sub-actions are presented alongside their GHG emission reduction potential, co-benefits, costs needed for resources and implementation, timeframes for completion, potential funding sources, and lead and supporting City Divisions. Internal partnerships among City staff and external partnerships with various outside agencies and organizations will also be essential to achieving some of the City's carbon neutral goals.

The key elements of the Climate Action Roadmap are detailed in the graphic below.

These are climate action co-benefits

Co-benefits are the non-GHG-related benefits of climate actions. These include (clockwise from top left) Economic Prosperity, Environmental Quality, Health Equity, and Housing Security.

This is a climate **measure**

Measures describe the City's long-range approach to reduce greenhouse gas emissions and improve resilience to the effects of climate change.

EN-1: Improve energy performance, decarbonize and improve energy resilience of the existing building stock.

Almost all of the buildings that will exist in West Hollywood in 2045 are the ones we already have today. Therefore, we must find ways to decarbonize the existing stock. Electrifying building energy systems is also going to change our community's relationship with the electric grid, and therefore we must seek energy resilience solutions that support a renewables-based grid and minimize the use of fossil fuels. Incentives alone will not be enough to decarbonize the existing stock, and the City will be seeking to develop energy.

performance requirements on a timeline that is consistent with market readiness and regional and statewide efforts. This will be accompanied by new resources to assist building owners, managers, and tenants to undertake retroft projects and implement conservation measures. The City will be taking a deliberate approach to ensure that frontline communities benefit from these changes to the building stock and are not unduly burdened by their costs.

This is a climate sub-action

Sub-actions list the specific policies, programs, and tools the City will enact over time. On the right side are implementation considerations associated with the sub-action including the timeframe, lead and supporting agencies, rough order-of-magnitude (ROM) estimated cost, and anticipated funding sources.

EN-1A: Establish mandatory minimum energy performanc Long Range Planning requirements for existing buildings Building & Safety; Current & Historic Planning; Rent Stabilization; Property Development with considerations for Supporting Agency Energy benchmarking Technical and financial ROM Cost **Funding Sources** Municipal Funds Promotion of incentives (financial and programmatic) for energy efficiency retrofits Use of rebate and system replacement programs

The following pages include the climate measures organized into the categories of Climate Leadership and Governance; Energy; Transportation, Mobility, and the Public Realm; Zero Waste, and; Natural Environment.

Key

Rough Order of Magnitude Cost	Cost Range
Very Low (\$)	\$0 - \$50,000
Low (\$\$)	\$50,001 - \$100,000
Medium (\$\$\$)	\$100,001 - \$500,000
High (\$\$\$\$)	\$500,001 or greater
Timeframe	Time Range
Short	< 3 years
Medium	3 to 5 years
Long	> 5 years
Co-Benefit	Description
Economic Prosperity	Ability to stimulate local business, economic development, and job opportunities
Environmental Quality	Improvements in natural systems, biodiversity corridors, air quality and water quality
Health Equity	Potential to enhance healthy living, physical comfort, and mental wellness for all West Hollywood residents
Housing Security	Improvements to the affordability, safety, quality, and/or availability of housing
the state of the s	
Range	GHG Reduction Potential (MTCO2e)
Range	GHG Reduction Potential (MTCO2e) > 10,000 MTCO2e
Range	
Range	> 10,000 MTCO2e
Range City Department	> 10,000 MTCO2e 1,000 - 10,000 MTCO2e
	> 10,000 MTCO2e 1,000 - 10,000 MTCO2e < 1,000 MTCO2e
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© © © © © © © © © © © © © © © © © © ©	> 10,000 MTCO2e 1,000 - 10,000 MTCO2e 1,000 MTCO2e Divisions Budget, Business Development, Community & Legislative Affairs, and Assistant City Manager Legal Services, City Clerk, and Human Resources Arts, Digital Media, and Media & Marketing Current & Historic Preservation Planning, Building & Safety, and Long Range Planning Facilities & Field Services, and Recreation Services Revenue Management, General Accounting, and Information Technology Strategic Initiatives, Social Services, and Rent Stabilization & Housing

6.2 Climate Leadership and Governance



CLG-1: Institutionalize carbon reduction and climate resilience in City government.









The City of West Hollywood's goals of mitigating carbon emissions and adapting to the effects of climate change will be achieved through interdepartmental collaboration. By institutionalizing West Hollywood's carbon reduction and

climate resilience within all departments and investing in additional full-time staff with key sustainability expertise, the City will install self-perpetuating processes thereby promoting sustainable practices.

CLG-1A: Create a team of sustainability staff to liaise and work collaboratively with City departments to implement WeHo Climate Action and other sustainability programs.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency City Manager, Human Resources

ROM Cost \$\$\$

Funding Sources Municipal Funds

CLG-1B: Formalize sustainability and resilience priorities in City operations, budgeting, processes, and performance management.

Timeframe Short Term

Lead Agency Budget & Long Range Planning

Supporting Agency All Departments

Funding Sources Municipal Funds

CLG-1C: Cultivate a relationship with the Tongva in order to foster indigenous-led stewardship and reciprocity in the City's climate practices.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency Council & Legislative Affairs

Funding Sources Municipal Funds

ROM Cost

ROM Cost

CLG-2: Reduce GHG emissions in City facilities and bolster the resilience of City operations.









The City will implement a series of actions that will both reduce the carbon emissions from City operations and bolster the resiliency of those operations. The following actions intend to not only address future City operations and

projects but also revisit current practices. These actions will also result in facility improvements that benefit the health and wellbeing for residents, workers, and visitors.

CLG-2A: Develop a net zero building framework for city facilities, cityowned real property development, and city-funded projects.

Timeframe

Short Term

Lead Agency

Facilities & Field Services

Supporting Agency

Long Range Planning; Property Development; Urban Design &

Architecture Studio

ROM Cost

Funding Sources

Municipal Funds, Utility Grants/ Support, State Grants

CLG-2B: Benchmark water use in City facilities and grounds on an annual basis in ENERGY STAR Portfolio Manager.

Timeframe

Short Term

Lead Agency

Facilities & Field Services

ROM Cost

Funding Sources

Municipal Funds

CLG-2C: Establish one or more resilience hubs in collaboration with external partners (i.e. community-based organizations, environmental organizations) to support community members, coordinate communication, distribute resources, reduce carbon pollution, and serve as centers for preparedness, rapid response, and recovery.

Timeframe

Medium Term

Lead Agency

Public Safety; Long Range Planning

Supporting Agency

Human Services & Rent Stabilization; Facilities & Recreational Services; Innovation

ROM Cost

\$\$\$\$

Funding Sources

Municipal Funds, Utility Grants/Support **CLG-2D:** Continue to coordinate cooling center hours and operations across community-serving facilities to support the needs of their visitors, particularly subpopulations most affected by climate impacts.

TimeframeShort TermLead AgencyFacilities & Recreation ServicesSupporting AgencyHuman Services & Rent Stabilization

ROM Cost

Funding Sources Municipal Funds

CLG-2E: Adopt alternative fuel guidelines for facilities and vehicles in West Hollywood.

Timeframe Short Term

Lead Agency Facilities & Field Services

ROM Cost

Funding Sources Municipal Funds

CLG-2F: Establish a sustainable purchasing program and an internal administrative regulation.

Timeframe Short Term

Lead Agency Finance & Technology Services

Supporting Agency Human Resources; Long Range Planning

ROM Cost \$

Funding Sources Municipal Funds

CLG-2G: Develop a zero-waste policy for City-hosted events.

Timeframe Short Term

Lead Agency Engineering

Supporting Agency Long Range Planning; Event Services

ROM Cost \$\$

Funding Sources Municipal Funds

CLG-2H: Install energy submeters at municipal facilities and expand the use of smart energy controls.

Timeframe Long Term

Lead Agency Facilities & Field Services

ROM Cost \$\$\$

Funding Sources State Grants, State Loans

CLG-3: Lead by example in addressing consumption-based emissions.









Consumption-based emissions are the upstream emissions associated with the materials and products we consume. Tracking consumption-based emissions is an evolving practice, with limited data sources that can be used to estimate upstream impacts. However, as a signal of the City

of West Hollywood's commitment to leading by example, the City will take actions to further the state of practice, as well as reduce upstream emissions even if they cannot be easily quantified.

CLG-3A: Engage with City departments on increasing the use of low carbon materials in adaptive reuse, multifamily retrofit projects, and public infrastructure projects in the City.

Timeframe Short Term

Lead Agency Urban Design & Architecture Studio

Supporting Agency Long Range Planning; Engineering

ROM Cost \$

Funding Sources Municipal Funds

CLG-3B: Pursue an embodied carbon assessment for West Hollywood's building stock to generate awareness of GHG emissions created from the supply chain of building materials from cradle to grave.

Timeframe Long Term

Lead Agency Long Range Planning

ROM Cost \$\$

Funding Sources Municipal Funds



CLG-4: Accelerate climate action, adaptation, and resilience strategies through regional partnerships.

ROM Cost







City Council



Effective climate action planning and implementation requires meaningful partnerships across multiple sectors and jurisdictions. The City of West Hollywood seeks to continue a spirit of collaboration and good faith across the county and region, addressing multisectoral and transboundary issues relating to transportation, water efficiency, waste reduction,

fire management, and water management policies. This regional advocacy includes consultation with Tongva and non-Tongva urban indigenous peoples to better integrate indigenous land practices into the City's adaptation and resillience strategy.

CLG-4A: Establish a WeHo Green **Business Program to promote** energy and water efficiency, waste reduction, green building materials, and sustainable and/or local purchasing with the City's business community.

Timeframe Medium Term **Business Development Lead Agency Supporting Agency** Long Range Planning

Funding Sources Municipal Funds

CLG-4B: Advocate for the integration of tribal-influenced fire management practices, in particular cultural burning, by LA County Fire and neighboring jurisdictions, in order to mitigate nearby wildfires.

Timeframe Short Term

Lead Agency Council & Legislative Affairs **Supporting Agency**

ROM Cost

Funding Sources Municipal Funds

CLG-4C: Coordinate with neighboring jurisdictions to adopt climate-adapted water management practices that reduce reliance upon imported water.

Timeframe Short Term

Long Range Planning **Lead Agency**

Supporting Agency Facilities & Field Services: Code Compliance

ROM Cost

Funding Sources Municipal Funds CLG-4D: Foster continued collaboration with neighboring jurisdictions and regional partners (Westside Cities, LADOT, Metro, LA County, etc.) on efforts to improve regional public transit (bus, rail, emerging microtransit, and dockless mobility options) and support zero emission mobility options within Southern California.

Timeframe

Short Term

Lead Agency

Long Range Planning

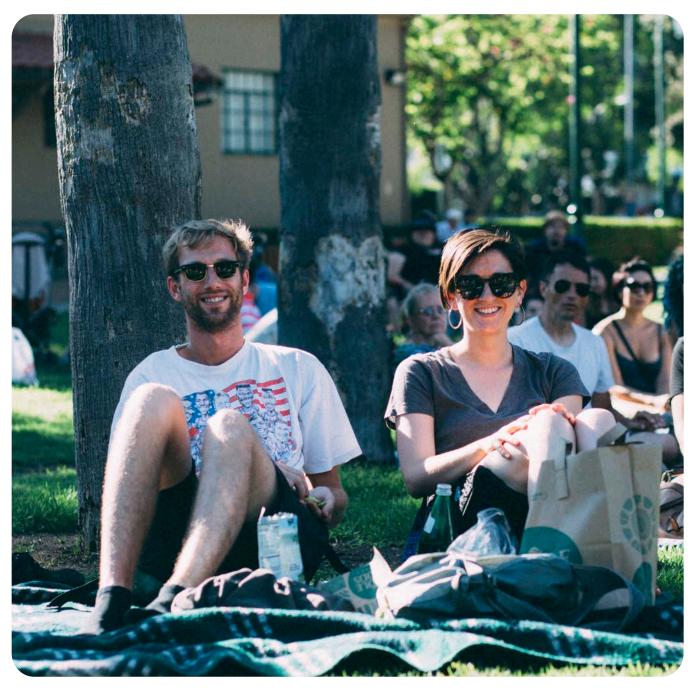
Supporting Agency

Council & Legislative Affairs

ROM Cost

\$

Funding Sources



CLG-5: Develop communications and outreach assets for climate action and adaptation.









Climate change affects us all - and we all have a role to play in reducing the greenhouse gas emissions that cause it. Communication of information, education and awareness, and ongoing community outreach are important strategies for the City of West Hollywood to continue to implement, as it can help all community members (residents, businesses, visitors, etc.) with a special emphasis on those at high-risk

to climate change impacts to adopt sustainable practices and prepare for climate-related emergencies. To promote the value of land stewardship, it is critical that these community education efforts be grounded in the history of the Tongva community's sacred relationship with this land.

CLG-5A: Develop a community climate action toolkit that includes:

- Resource conservation tips
- Information about how to prepare for and respond to climate-related emergencies (including heat waves, power outages, drought, flash flooding, and wildfires)
- Tongva history and relations with people, places, and the land

Timeframe

Lead Agency

Supporting Agency

ROM Cost

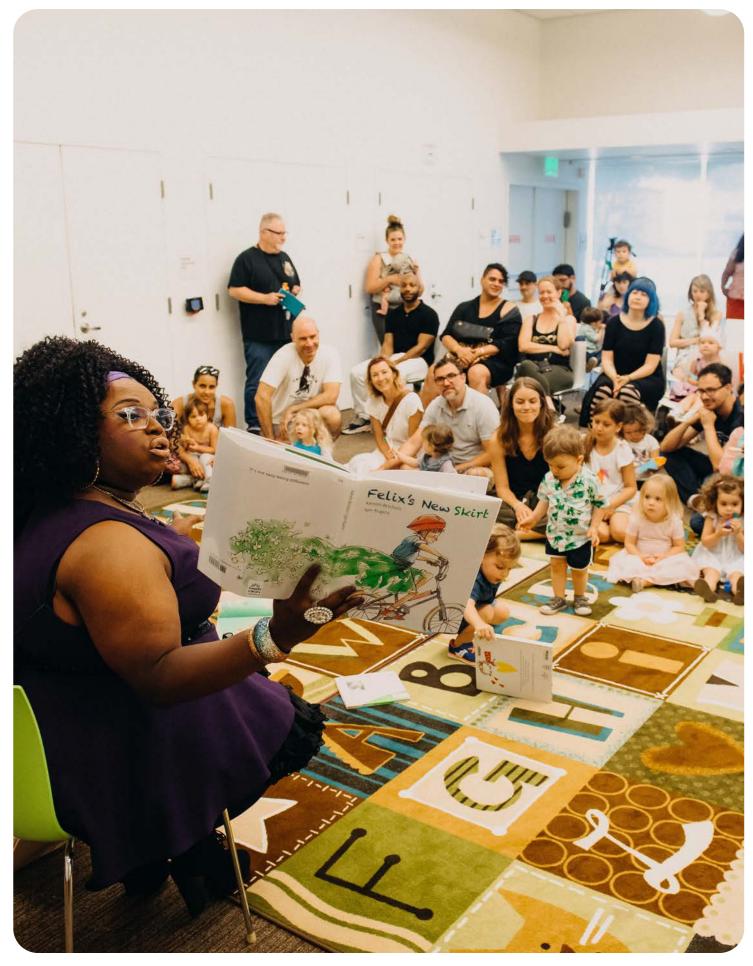
Funding Sources

Short Term

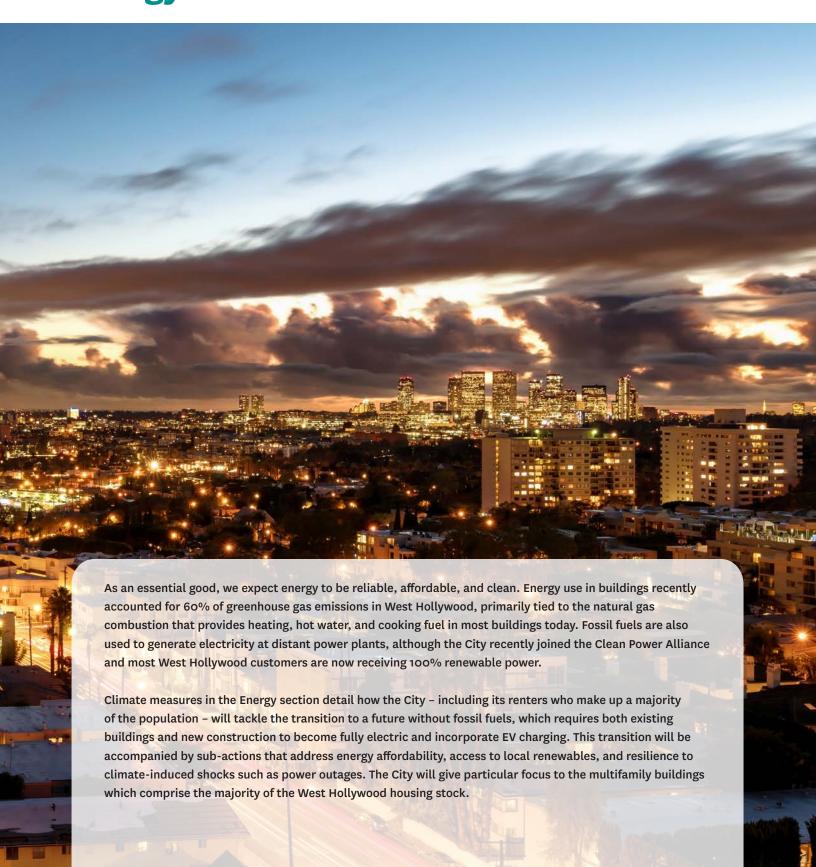
Long Range Planning

Communications

\$



Energy



EN-1: Improve energy performance, decarbonize and improve energy resilience of the existing building stock.









GHG Reductions







Almost all of the buildings that will exist in West Hollywood in 2035 are the ones we already have today. Therefore, we must find ways to decarbonize the existing stock. Electrifying building energy systems is also going to change our community's relationship with the electric grid, and therefore we must seek energy resilience solutions that support a renewables-based grid and minimize the use of fossil fuels. Incentives alone will not be enough to decarbonize the existing stock, and the City will be seeking to develop energy performance requirements on a timeline that is consistent

with market readiness and regional and statewide efforts. This will be accompanied by new resources to assist building owners, managers, and tenants to undertake retrofit projects and implement conservation measures. To reach carbon neutrality, approximately 80% of the City's existing residential building stock and 9.5M SF of nonresidential building stock must be electrified by 2035. The City will be taking a deliberate approach to ensure that frontline communities benefit from these changes to the building stock and are not unduly burdened by their costs.

EN-1A: Establish an equitable building performance standard for existing buildings with considerations for:

- Decarbonization & electrification
- Energy benchmarking
- Resilience
- Technical & financial assistance programs
- Promotion of incentives (financial and programmatic) for energy efficiency retrofits
- Use of rebate and system replacement programs

Timeframe

Lead Agency

Supporting Agency

Funding Sources

Short to Medium Term

Long Range Planning

Building & Safety; Current & Historic Planning; Rent Stabilization; Property Development

ROM Cost \$\$\$

EN-1B: Explore the creation of a Retrofit Accelerator program, offering technical and financial assistance, utility rebate matching, and resources for existing building retrofits, including:

- Energy and water conservation measures, including envelope improvements, lighting upgrades, high efficiency appliances, building management and automation, low-flow fixtures, leak detection, and greywater recycling
- Electrification measures, including panel upgrades, electric water heaters and heat pumps, and replacement of gas-fired appliances with high efficiency electric appliances
- Passive and low energy cooling strategies, including weatherization and insulation, ceiling fans for circulation, smart temperature controls, and high efficiency HVAC system replacements
- Seismic retrofits

Timeframe

Short Term

Lead Agency

Budget & Long Range Planning

Supporting Agency

All Departments

ROM Cost

¢

Funding Sources

EN-2: Promote, support, and expand the use of local solar power and battery energy storage.









In order to ensure the energy resilience of West Hollywood, the City will encourage the expansion of distributed energy resources such as local solar power and battery energy storage, which can be operated independently from the centralized electric grid during outage events. These systems can support West Hollywood residents and businesses with

access to emergency power, while reducing energy demand when the grid is strained. This measure also includes efforts to allow residents and businesses to access the benefits of local renewable energy through the Clean Power Alliance, even if they are renters or own buildings that are not suitable for solar panels.

EN-2A: Continue to promote and support the Go Solar WeHo program and encourage the pairing solar systems with battery energy storage systems.

Timeframe

Short Term

Lead Agency

Long Range Planning

ROM Cost

\$

Funding Sources

Municipal Funds, State Grants, State Loans, Utility Grants/Support

EN-2B: Leverage Clean Power Alliance and Southern California Edison programs to encourage the adoption of solar, battery energy storage, smart inverters, and smart thermostats.

Timeframe

Short Term

Lead Agency

Long Range Planning

ROM Cost

\$

Funding Sources

Municipal Funds, Utility Grants/Support

EN-3: Decarbonize the future building stock and implement best practices in sustainable and resilient new construction.















Building & Safety



Installing all-electric systems in new buildings makes sense from both environmental and economic perspectives. Energy efficient heat pumps and appliances save energy costs, and construction costs can be lowered by avoiding the installation of fossil fuel systems, both of which support housing affordability.

EN-3A: Adopt energy reach codes and/or resiliency codes that exceed State requirements.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency

ROM Cost

ROM Cost

ROM Cost

Funding Sources Municipal Funds

EN-3B: Develop educational resources and guidelines for sustainable construction material selection.

Timeframe Short Term

Lead AgencyUrban Design & Architecture Studio

Supporting Agency Long Range Planning

Funding Sources Municipal Funds

EN-3C: Develop educational resources and guidelines around electric vehicle chargers, battery energy storage, and all-electric appliances.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency Building & Safety

pporting Agency

Funding SourcesMunicipal Funds,
Utility Grants/Support

EN-3D: Promote and support the adoption of clean and resilient energy technologies in affordable housing, schools, and other critical facilities.

Timeframe

Lead Agency

Supporting Agency

ROM Cost

Funding Sources

Short Term

Long Range Planning

Urban Design & Architecture Studio

4



EN-4: Enhance community energy resilience.









Climate hazards, particularly increased temperatures and heat events, are and will continue to place strains on people and the electric grid. This makes it especially important for the City to bolster community energy resilience. It will do so by taking a comprehensive approach, addressing building design, street

design, and public facility and public space improvements to serve West Hollywood community members throughout the City, particularly those most impacted by changing climate conditions.

EN-4A: Implement heat preparation and response measures, prioritizing areas with higher proportions of older adults and low-wealth individuals, and deploy such measures at different scales, including:

- Building (passive cooling design, cool/green roofs, weatherization, and low-energy active cooling systems),
- Citywide (additional shade canopies and shade trees, etc.), and
- Community-serving facilities
 (cooling centers, pools, drinking
 water fountains and filling
 stations, etc.).

Timeframe

Long Term

Lead Agency

Urban Design & Architecture Studio; Facilities and Recreation Services

ROM Cost

\$\$\$\$

Funding Sources

Municipal Funds, State Grants

EN-5: Promote electric vehicle readiness.







Long Range Planning

\$\$



Electric vehicles are an essential technology to both reduce tailpipe emissions and their impacts on people and the environment. While the City has limited control over the vehicles that are on the road, it will seek to influence EV adoption by accelerating electric vehicle charging in buildings and publicly accessible locations.

EN-5A: Increase access to electric vehicles through shared mobility services, expanded options for public and shared charging, and continued advocacy and support for the conversion of private vehicle fleets.

Timeframe Long Term

Lead Agency Long Range Planning

Supporting Agency Engineering

ROM Cost \$\$\$\$

Funding Sources Municipal Funds, State Grants

EN-5B: Support new technologies, incentives, and programs that accelerate the adoption of EV charging in existing multifamily residential buildings.

Timeframe Short Term

Funding Sources State Grants, Utility Grants/Support

EN-5C: Incentivize EV charging infrastructure, prioritizing publicly accessible areas and existing parking spaces, in partnership with Southern California Edison and the Clean Power Alliance.

Timeframe Medium Term

Lead Agency Long Range Planning

Supporting Agency Innovation; Engineering; Parking

ROM Cost \$

Funding SourcesMunicipal Funds, State Grants/
Support, Utility Grants/Support

Lead Agency

ROM Cost



6.4

Transportation, Mobility and the Public Realm



West Hollywood has a compact urban form that enables many of its residents and visitors to choose sustainable modes, such as walking, biking, and public transit. Land use and urban design play an important part in these travel decisions, as they dictate where potential destinations can be located as well as the comfort and safety of traveling by foot or bike. What we heard through the outreach and engagement process is that public realm investments can also support mental health, provide respite from the heat, and provide places to gather with friends, family, and neighbors. Seating was identified as a high priority, particularly for older adults. The Tongva also spoke about the importance of being able to access, co-steward, or regain rights to the public realm in West Hollywood.

The transportation sector is still responsible for 31% of citywide greenhouse gas emissions, primarily generated by vehicles with gasoline and diesel vehicles. Public transit is the backbone of a sustainable transportation system; in addition to its existing transit services, the City also supports the extension of the Metro Crenshaw/LAX Line through West Hollywood. Sub actions proposed in the Transportation and Mobility section detail how the City will reduce the need to travel alone by car, enable the shift to sustainable modes, and support electric vehicle adoption.

TM-1: Increase sustainable mode share in West Hollywood (Walking, Bicycling, Transit).









GHG Reductions







Further increasing the proportion of trips made by sustainable modes is the most effective way to reduce transportation sector emissions. Despite the City's compact form, feedback from community members underscores the need for increased pedestrian, cycling, and transit infrastructure to

reduce dependence on private vehicles. The City not only intends to install this infrastructure within its borders, but will also continue to advocate for multi-jurisdictional capital projects that enhance public transit across the region.

TM-1A: Increase pedestrian mode share in West Hollywood by creating convenient and attractive street environments, including seating and shading infrastructure to support universal access and use of the sidewalk network.

Timeframe Long Term

Long Range Planning

Supporting Agency Innovation, Engineering

ROM Cost \$\$\$\$\$

Funding Sources Municipal Funds, State Grants

TM-1B: Develop a long-range plan for improving public life and public spaces throughout the city, with measurable performance criteria and recommendations that are responsive to the needs of community members of all ages and abilities.

Timeframe Medium Term

Lead Agency Long Range Planning

Supporting Agency Urban Design & Architecture Studio;

Human Services & Rent Stabilization

ROM Cost \$\$\$

Funding Sources Municipal Funds

TM-1C: Explore opportunities for activating side streets, alleys, and excess road space into public spaces such as paseos or play streets.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting AgencyUrban Design & Architecture Studio;
Facilities & Field Services; Public

Works

ROM Cost

Funding Sources Municipal Funds

TM-1D: Accelerate implementation of the multi-modal improvements to the pedestrian and bicycle networks as recommended in the Pedestrian & Bicycle Mobility Plan, Rail Integration Study, Vision Zero, and future mobility planning efforts.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency Council & Legislative Affairs

ROM Cost \$\$\$\$\$

Funding Sources Federal Grants, State Grants, Regional Grants, Municipal Funds

TM-1E: Continue to advocate for the Crenshaw-LAX rail extension project.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency Council & Legislative Affairs

ROM Cost \$\$\$\$\$
Funding Sources Municipal Funds

TM-1F: Explore opportunities to improve surface bus transit and enhance supportive infrastructure (e.g., bus stops and shelters, transit and mobility lanes, traffic signal prioritization, etc.).

Timeframe Short Term

Lead Agency Long Range Planning

Supporting Agency Engineering, Innovation

ROM Cost \$

Funding Sources Municipal Funds, Federal Grants

TM-2: Promote zero and near zero carbon transportation.













Long Term

The City will electrify its fleet vehicles, including those used for public transportation, and will encourage and/or require other fleet operators to do the same. This includes services such as CityLine and Dial-a-Ride services, but also ride-

hail vehicles, scooters, and government fleet vehicles. To support these investments, the City will expand charging infrastructure for these vehicles.

TM-2A: Electrify West Hollywood's municipal and public transportation fleets with plug-in electric vehicles (e.g., Ambiance, Cityline, the Pickup, Dial-a-Ride services, etc.)

Timeframe

Lead Agency Social Services

Supporting Agency Long Range Planning; Engineering, Innovation

ROM Cost \$\$\$\$

Funding Sources State Grants, Utility Grants/ Support, Federal Grants

TM-2B: Expand publicly accessible on-street and off-street EV charging infrastructure (for light, medium, and heavy-duty vehicles).

Timeframe

Short Term

Lead Agency

Engineering

Supporting Agency

Innovation, Long Range Planning, Social Services

ROM Cost

\$\$\$

Funding Sources

Utility Grants/Support, State Grants, AQMD funds **TM-2C:** Explore, encourage, and/or require electric options for:

- Last-mile delivery including, e-cargo bikes, scooters, autonomous devices, etc.
- Car share vehicles
- Ride hail vehicles
- Vanpool and microtransit vehicles
- Private point-to-point shuttles
- Parking enforcement vehicles

Timeframe

Lead Agency

Supporting Agency

ROM Cost

Funding Sources

Medium Term

Long Range Planning

Public Works, Innovation

\$\$

Municipal Funds, Federal Grants



TM-3: Rethink curb space and parking assets.









GHG Reductions







Parking policy is one of the City's most important assets for behavior change and street management, and can be leveraged to encourage sustainable modes, the adoption of electric vehicles, and even car-free and car-lite lifestyles that are supported by a wide array of mobility options other than private vehicles.

TM-3A: Explore opportunities for:

- Increasing EV only parking (on-street)
- · Piloting dynamic parking pricing
- Providing lockers or shared storage spaces for delivery services
- Increasing loading zones for delivery vehicles

Timeframe

Lead Agency

Supporting Agency

ROM Cost

Funding Sources

Medium Term

Parking, Engineering

Innovation, Long Range Planning

Municipal Funds

TM-3B: Evaluate minimum parking requirements across all land uses and provide alternatives that meet current and future parking needs.

Timeframe

Lead Agency

ROM Cost

Funding Sources

Short Term

Long Range Planning

Long hange i tallillig

TM-4: Implement transportation demand management (TDM) solutions.









GHG Reductions





Transportation demand management is a transportation planning approach that seeks to influence travel behaviors, encouraging people to utilize sustainable mobility options and/or reduce the number of trips they need to make by private vehicle. When implemented well, TDM can reduce the need for new road and parking infrastructure, and allow more physical space and investment dollars to be made available for complete streets, sustainable transportation investments, and more.

TDM recognizes that people make travel decisions based on many factors, including but not limited to comfort, convenience, safety, and cost. While a robust network of public transportation options exist in the City, oftentimes it's a lack of first- and last-mile connections that deters people from becoming regular transit riders. As such, the City will specifically explore first and last-mile solutions to provide even greater levels of access to its public transportation network.

TM-4A: Establish a transportation management organization to implement, manage, & monitor the TDM ordinance.

Timeframe Medium Term

Long Range Planning

Funding Sources Municipal Funds, PPP

TM-4B: Explore the creation of a Micro Transit pilot program as a first-and-last mile solution to promote use of electric public transit, prioritizing access for older adults and persons in need of additional mobility support.

Timeframe

ROM Cost

Short Term

Lead Agency

Social Services

ROM Cost

\$\$\$\$

Funding Sources

Municipal Funds, State Grants, Federal Grants, PPP



6.5 **Zero Waste**



ZW-1: Improve source reduction and recycling.









The single most effective way to reduce waste sector emissions is to prevent waste from being created in the first place. The City will seek to reduce the usage of single use plastics, one of the most prominent sources of waste that often have

sustainable product alternatives, such as reusable foodware. West Hollywood's world-renowned public events also offer high profile opportunities to mitigate environmental impact and take a leadership position on eco-conscious public events.

ZW-1A: Develop a single-use plastics and/or reusable foodware ordinance.

Timeframe

Short Term

Lead Agency

Long Range Planning

Supporting Agency

Code Compliance; Engineering

ROM Cost

\$\$

Funding Sources

Municipal Funds

ZW-1B: Establish a target for achieving zero waste at major public events (i.e. LA Pride and Halloween).

Timeframe

Short Term

Lead Agency

Long Range Planning

Supporting Agency

Engineering, Facilities & Field Services; Events Services

ROM Cost

\$

Funding Sources

ZW-2: Divert organic waste.









GHG Reductions





Organic waste, including food scraps and yard waste, accounts for the vast majority of carbon emissions in the waste sector. In alignment with State requirements and targets, the City of West Hollywood will seek to dramatically increase the separation, collection, and treatment of organic waste so that

it can be used for compost and other beneficial uses with a lower carbon footprint. Public education is one of the City's key levers, and will be used to equip residents and businesses with the information they need to properly collect and sort waste.

ZW-2A: Support educational programming on organics recycling, including the supply of materials and tools to encourage behavior change (e.g. compost bins, signage, etc.).

Timeframe

Short Term

Lead Agency

Engineering

Supporting Agency

Long Range Planning

ROM Cost

\$

Funding Sources

Municipal Funds, State Grants

ZW-2B: Develop and phase in organic waste reduction requirements in accordance with CalRecycle mandates (SB 1383), including municipal code updates, customer education and outreach materials, food recovery capacity, compliance & enforcement protocols, monitoring and reporting, etc.

Timeframe

Short Term

Lead Agency

Engineering

Supporting Agency

Code Compliance, Finance & Technology Services

ROM Cost

**

Funding Sources

Municipal Funds

ZW-2C: Implement curbside organics collection program.

Timeframe

Short Term

Lead Agency

Engineering

ROM Cost

\$\$\$\$

Funding Sources

Municipal Funds, State Grants, State Loans



6.6 **Natural Environment**



NE-1: Protect and expand the urban tree canopy.















Since incorporating in 1984, the City of West Hollywood has pursued an aggressive tree-planting program, with street trees increasing from under 5,000 in 1990 to more than 9,000 in 2016. However, climate change impacts such as heat and drought are taking their toll on the urban forest, as are newly introduced pests. Additionally, some developments have decreased public planting space, such as front-loading apartment buildings that replace planting areas with driveways.

At the same time, a thriving urban forest provides numerous benefits for environmental and human health, and it is one of the most important tools we have to address our changing climate. It reduces the urban heat island effect and air pollution, improves soil health and urban habitats, lowers energy consumption and the frequency of street maintenance, and reduces stress. The tree canopy is an important tool for community resilience, providing shade and respite from urban heat. The City will protect and expand the canopy in parks and on streets, where it has direct control, and will encourage tree planting and preservation on private property.

NE-1A: Implement actions necessary to advance the Urban Forest Management Plan, including:

- Assessing the state of West
 Hollywood's urban forest,
 including an establishment
 study of young trees and a tree
 condition assessment.
- Expanding future tree planting areas, where possible, to allow for greater soil volume that will support larger, mature trees in the city.
- Prioritized planting in locations with lower tree canopy and greater exposure to health and environmental burdens (i.e. Eastside neighborhoods).

Timeframe

Lead Agency

Supporting Agency

ROM Cost

Funding Sources

Long Term

Facilities & Field Services

Urban Design & Architecture Studio

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Municipal Funds, State Grants

NE-1B: Continue to develop educational and outreach programs and incentives to encourage tree planting/preservation, green roofs and roof gardens in existing buildings.

Timeframe Short Term

Lead Agency Long Range Planning

Supporting AgencyUrban Design &
Architecture Studio

ROM Cost \$

Funding Sources Municipal Funds

NE-1C: Explore policies that allows for flexible development standards that favors tree canopy preservation, protection, and replacement, as well as dedicated green spaces.

Timeframe Short Term

Lead Agency Urban Design & Architecture Studio

Supporting Agency Planning & Development Services

ROM Cost \$

Funding Sources Municipal Funds

NE-1D: Support innovative technologies (e.g. Silva cells) that have long-term environmental & life cycle benefits.

Timeframe Medium Term

Lead Agency Engineering

Supporting Agency Facilities & Field Services

ROM Cost \$\$\$

Funding Sources Municipal Funds

NE-2: Nurture green spaces biodiversity, and wildlife habitat.









A resilient West Hollywood must include vibrant, accessible, and quality green spaces. The City will continue to nurture existing green spaces and will actively seek new opportunities to introduce greenery throughout the urban environment,

benefitting the health of its human residents as well as the health of its flora, fauna, and soil. Furthermore, the City will center Tongva and other indigenous peoples' voices and perspectives in these efforts.

NE-2A: Explore opportunities to re-establish natural and green spaces on parcels, streets, alleys, and interstitial spaces, collaborating with the Tongva and environmental nonprofits to incorporate soil restoration and native and climateadaptive vegetation as opportunities are identified.

Timeframe Medium Term

Lead Agency Facilities & Field Services

Supporting AgencyLong Range Planning; Urban Design & Architecture Studio

ROM Cost \$

Funding SourcesMunicipal Funds,
State Grants, Federal Grants

NE-2B: Encourage opportunities for community gardens in public and private locations, including affordable & supportive housing sites, to foster environmental stewardship, soil health, local food production, educational & wellness programming, community-based partnerships, & social cohesion.

Timeframe Short Term

Lead AgencyUrban Design & Architecture
Studio; Engineering

Supporting AgencyLong Range Planning, Current &
Historic Planning

ROM Cost \$

Funding Sources Municipal Funds

NE-2C: Work with the Tongva to transition park landscapes to native and edible landscapes that can be places of gathering, ceremony, and sustenance.

Timeframe

Medium Term

Lead Agency

Facilities & Field Services

Supporting Agency

Long Range Planning

ROM Cost

**

Funding Sources

NE-2D: Explore opportunities to create and maintain NWF Certified Wildlife Habitat gardens and gardens that support monarchs and other local pollinators.

Timeframe Short Term

Lead Agency Facilities & Field Services

ROM Cost \$\$

Funding Sources State Grants

NE-2E: Pilot permeable and cool surfaces, such as permeable walkways and high-albedo road and parking lot surfaces.

Timeframe Medium Term

Lead Agency Facilities & Field Services

Supporting Agency Long Range Planning; Urban Design

& Architecture Studio

ROM Cost \$\$\$

Funding Sources Municipal Funds, State Grants

NE-2F: Conduct a biodiversity assessment to identify local wildlife and plant species, with the inclusion of key indicators as to monitor the health of our ecosystems.

Timeframe Medium Term

Lead Agency Long Range Planning

Supporting AgencyUrban Design & Architecture Studio;
Facilities & Field Services

ROM Cost \$\$

Funding Sources Municipal Funds

NE-3: Improve water management.









GHG Reductions



Our region is highly dependent upon important water to serve our residents and businesses, and that imported water supply is being impacted by reduced snowpack and other climate change impacts. As a contract city, West Hollywood imports its water from Beverly Hills and LADWP and does not own or control its groundwater. Yet the City has excelled in its water conservation efforts since the 2011 Climate Action Plan, significantly reducing its community-wide water use

and implementing water-efficient measures for its municipal facilities and grounds, including collaborations with agencies like the West Basin Municipal Water District. West Hollywood will continue to do its part to bolster water resilience and reduce its reliance on important water through water conservation measures and partnership with the Tongva on groundwater practices.

NE-3A: Continue to promote water conservation measures (e.g., rain barrels, cisterns, limited outdoor water use) that reduce dependency on imported water, including stormwater reuse.

Timeframe

Lead Agency

ROM Cost

Funding Sources

GHG Reductions

Short Term

Long Range Planning

\$



NE-4: Encourage green infrastructure.









Green infrastructure supports a healthy and climate resilient environment while addressing inequities and public health. It allows people to connect with nature via biophilia, environmental education, and urban agriculture, which in turn can foster community-building opportunities. This can be especially powerful for communities who have had limited access to such opportunities, including BIPOC communities, low-income communities, and people experiencing houselessness.

The City will integrate green infrastructure into a communitywide framework and relevant local plans, and will follow through with green infrastructure upgrades in its capital projects. Furthermore, the City will consider incentives for landowners to adopt cohesive and interconnected green infrastructure practices.

NE-4A: Create a communitywide green infrastructure plan that is integrated with other relevant local plans and includes:

- Upgraded public spaces, public buildings, green streets, green parking lots, green alleys and interstitial spaces based upon locally adopted or recognized best practices in green infrastructure
- Creation of partnerships with key community groups and other stakeholders to encourage green infrastructure practices
- Working with the Tongva to restore native plants alongside other improvements to public spaces, and cultivate spaces where the Tongva and West Hollywood can grow food
- Incentive programs to encourage landowners to adopt interconnected green infrastructure practices
- A green infrastructure monitoring program and followup reports on the status of desired outcomes

Timeframe

Lead Agency

Supporting Agency

rame

Long Range Planning

Current & Historic Preservation

Medium Term

Planning, Building & Safety, Urban Design & Architecture Studio, Public Works, Facilities & Recreation Services

ROM Cost

Funding Sources

\$\$\$
Municipal Funds, Federal Grants,

State Grants, State Loans

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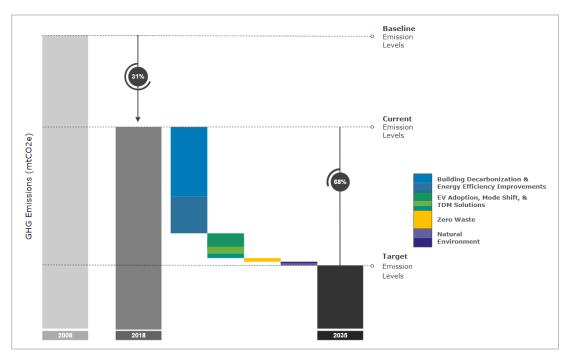


Figure 13: Waterfall chart depicting the difference between the 2018 baseline and carbon neutral scenario at 2035 using measure-specific reductions.

Estimated Emission Reductions

In the carbon neutral pathway, reductions in stationary energy emissions account for more than 70% of total reductions from 2018. Measures that include building electrification, building retrofits, and energy use improvements have the potential to take the stationary energy sector from the largest contributor of emissions down to zero by 2035. If implemented, these changes will increase total kWh demand by 65% but omit the need for usage of natural gas.

Transportation, mobility, and public realm measures leverage mode shift, electric vehicle adoption, curb space changes, and transportation demand management solutions. Together these measures contribute 25% of the projected reductions by 2035. A key to the success of achieving reductions in the transportation sector is adoption and support of electric vehicles. While this is partly out of the City's control, it is estimated that by 2035 69% of West Hollywood vehicles will be zero emissions.

Waste measures include improvements to diversion of organic and solid waste as well as improvements to water management. The city aims to achieve 95% diversion rate for solid waste and 90% diversion rate for organics by 2035. Along with wastewater reductions these measures account for 3.1% of estimated emissions reductions from baseline.

Additional measures for water supply and treatment and wastewater treatment account for 3.8% of estimated reductions from baseline.

Chapter 7

Spotlight on Resilience

- 7.1 Strengthening Social Infrastructure
- 7.2 Enhancing the Physical Environment
- 7.3 Next Steps



Introduction

As discussed throughout this plan, the major focus of the Climate Action and Adaptation Plan is to identify actions to support the reduction of the City's greenhouse gas emissions (climate mitigation) and decrease its vulnerability to the extreme weather events (climate adaptation). Equally as important is the City's ability to nimbly operate, be prepared for, respond quickly to, and recover from future shocks and stressors and changing conditions (citywide resilience). This spotlight will focus on two components of resilience: (1) strengthening the City's social infrastructure and (2) enhancing the City's physical environment.

7.1 Strengthening Social Infrastructure

Like many areas around the world, the global COVID-19 pandemic tested the ability of West Hollywood community members to thrive in place despite facing unexpected disruptions in their life. Already mentioned throughout this plan, this ability to adjust and thrive in real time is known as the "adaptive capacity." In a similar way, future climate emergencies or disasters will also test this capacity, which can vary widely among individuals based on demographics, economic resources, health, mobility, access to a support network, and living conditions among other factors. Cities fostering closer relationships among neighbors, community-based organizations, community leaders, local ambassadors, and its own workforce, particularly those serving the communities most impacted by climate change, can result in stronger communal networks, social cohesion, and resilience among community members during periods of normalcy and times of crisis. Centering and nurturing this type of collective compassion citywide can lead to fewer community members being adversely impacted by disruptive events and ensure acute short-term and long-term needs of various members are met.

Examples of City-to-Community Response during Covid-19

The City's early investment in its social infrastructure during normal times, in particular its partnerships with social services providers, its recreational programming, and its rent stabilization programs resulted in the following during the public health emergency:³⁵

- The City and its partners knowing the existing locations of its specific subpopulations and being able to meet their primary needs during COVID-19.
- The City and its partners working together to modify methods of service delivery, information dissemination, and the accounting of need.
- The City initiating weekly wellness checks for community members
 65+ years of age and connecting them with real-time information and resources, service needs, and ways to combat social isolation.
- The City offering financial, legal, and technical assistance resources for those facing housing and economic insecurity.
- The City implementing virtual recreational programming,
 #WeRecAtHome series, to foster social connectedness, youth
 engagement, mental & physical wellness, etc.



More information and examples of the City's response to COVID-19 can be found in the West Hollywood: A COVID-19 Retrospective Report.



Actions that can strengthen West Hollywood's social infrastructure

Below are several recommendations for supporting a strong social infrastructure citywide:

- Continuing to reinforce and expand the following best practices:³⁶
 - Partnerships with groups that provide rent relief and/or meals for older adults or people who are unhoused during times of system shocks including climate emergencies.
 - Partnerships with community-based organizations supporting people dealing with isolation, stress, depression, anxiety, and other mental health challenges.
 - Incorporation of mental health and emotional wellbeing into City services and programs (e.g., frequent wellness checks with sensitive groups).
 - Provision of recreational services and programming to facilitate social cohesion and areas where community members can gather.
 - · Modified transportation and service delivery methods to support subpopulations in need during disruptive events
- Attracting younger, more diverse voices in community and civic leadership roles to ensure representation, equity, and inclusion in city policymaking and in its response to extreme events.
- Educating residents on emergency operations through volunteer programs, including mental health and trauma-informed outreach and services available during times of crisis.
- Encouraging and incentivizing support and patronage of local retailers and restaurants, who are viewed as hubs of community and stewardship in normal times and who can play a key role in the provision of services, information, and resources during emergencies.
- Maintaining networked contact lists of various constituent groups (e.g., local businesses, property owners, community
 members, residents, people who are unhoused, recreational users, social services clients) to further facilitate rapid
 response and deployment needs.
- Encourage "community care and support groups" where neighbors come together regularly, foster connectedness, share resources, and provide support.

The above list is not exhaustive, and the majority of the ideas come from conversations held with West Hollywood community members during outreach engagement for this project.

³⁶ Community Conversations: COVID-19 Impacts & Strengthening Climate Adaptive Capacity, Pueblo Planning, January 22, 2021

7.2 Enhancing the Physical Environment

As a very dense, compact, urbanized location in the LA region, the City of West Hollywood faces unique challenges to improving its physical environment to meet its present and future climate and infrastructure resiliency needs. Several adaptation measures across WeHo Climate Action's focus areas list sub-actions related to citywide cooling and mitigating the impacts of extreme heat, while also setting the stage for increased capacity needs to support building electrification, smart city infrastructure projects, electric vehicle charging, and so on. As advancements in technology rapidly evolve and disruptive events become more frequent, the City will need to continue to strategically invest in efforts that reinforce its ability to prepare for, respond to, and recover from these types of incidents and equip its community members to be able to shelter and thrive in place when possible.

Examples of Physical Resilience during COVID-19

Similar to the City's early investment in its social infrastructure, the same attention given to adopting and implementing pedestrian-oriented and transit-oriented land-use and zoning policies over the last 25 years facilitated nearby universal access to essential goods and services (grocers, pharmacies, etc.) from residential neighborhoods when shelter-in-place orders took effect during the pandemic. Having goods and services within nearby distance eased the need to travel long distances for some community members for essentials like food, water, and medications. Those that could not travel also received delivery services to meet their needs. Additionally, the temporary relaxation of zoning requirements combined with the enhanced use of the public realm (on-street spaces, off-street parking lots, metered spaces) as parklets, outzones (spaces for outdoor dining), and curbside pickup and dropoff zones served as innovative ways to deal with public health emergency restrictions, while ensuring safe experiences for patrons in the built environment and ongoing operations for the survival of West Hollywood business community. Lastly, the smart bus shelter prototype at Santa Monica Boulevard and San Vicente Boulevard was used during the pandemic to provide real time public service announcements on changing COVID-19 guidelines.



Actions that can enhance West Hollywood's physical environment

In addition to measures and subactions in the previous section that address heat relief and response, below are several recommendations for supporting enhancements to physical environment citywide:

- Bolster the City's critical facilities & public infrastructure. West Hollywood currently experiences disruptive conduit challenges related to its energy infrastructure, often resulting in recurring intermittent or elongated power outages in certain areas of the City. This can be exacerbated during times of extreme heat. There is a present and future need for more reliable and modernized above grade and below grade power infrastructure as well as repaired and updated below grade water infrastructure. The City should conduct an audit of right-of-way (ROW) energy infrastructure to understand current and future capacity needs based on increasing demand loads from smart, connected public infrastructure (streetlights, smart bus stops, etc.), electric vehicle charging, and building electrification and thermal comfort. Additionally, the City should consider solar plus battery storage installation in concert with distributed energy systems and energy efficiency measures at eligible city facilities to increase their operational reliability and recovery in normal and times of extreme events. These recommendations should be considered in partnership with agencies such as Clean Power Alliance, Metro, Southern California Edison, LADWP, Beverly Hills Water, and LA County Supervisorial Districts to facilitate planning & implementation of additional capacity and infrastructure upgrades.
- Embrace and prepare for the rapid pace of innovation and resiliency. With infrastructure becoming more connected, the City should establish a Resiliency Maintenance Budget to ensure that all infrastructure is kept up to date physically and technologically. Connected infrastructure that enables smarter city operations provides for multiple quality of life benefits and protections, however regular maintenance and upkeep of this key component of the City's built environment is essential. Moreover, the City should explore partnerships and incentives with the telecommunications companies to develop their own fiber networks in West Hollywood and consider subsidies for community members who may not otherwise have the resources to pay for high-speed internet access. Having reliable, high-speed connections at home will be critical in the future to support the shift to remote work and for unexpected disruptions that require sheltering-in-place with rapidly evolving guidance and protocols.
- Expand responsibilities of Emergency Management Coordinator to include climate resilience. Having expertise on staff trained not only in dealing with climate emergencies such as drought, wildfire, extreme heat, power outages, etc., but also other emergencies like earthquake, terrorism, and mass victim events will strengthen the City's preparedness, rapid response, and ability to recover from when such threats occur. This position can serve as a critical link across various city functions, including public safety, climate resilience, long range planning, technological innovation, and social safety protections. It could expand beyond traditional emergency roles to include intersectional components of preparedness addressed in this section.
- Establish resilience hubs citywide.¹ Think of resilience hubs as community centers 2.0. These hubs are known and trusted areas within West Hollywood, where community members already frequent for services, education, information, resources, respite, programming, recreation, and gathering in regular times, that can also serve as centers for emergency services, information, and supplies during times of disruption and uncertainty. Having a network of resilience hubs (e.g. schools, city facilities, service providers, community-based organizations, affordable housing sites, etc.) spread across the city creates redundancy and relieves the pressure on any one location from needing to serve the majority of community members during an extreme event. The City could consider establishing memorandums of understanding with entities within West Hollywood that are willing to serve as a resilience hub.
- **Develop a digital media signage resilience strategy.** Leverage existing and future locations of digital signage throughout the city to serve as hubs for information and other messaging for emergency operations. In times of emergency, this infrastructure should serve as resilience tools for communication. To be most effective, the City will need to develop and establish a specific strategy for operating these signs during times of disruption. Future locations for digital media signage may also coincide with any resilience hubs established citywide.

¹ Urban Sustainability Directors Network. "Resilience Hubs." http://resilience-hub.org/.

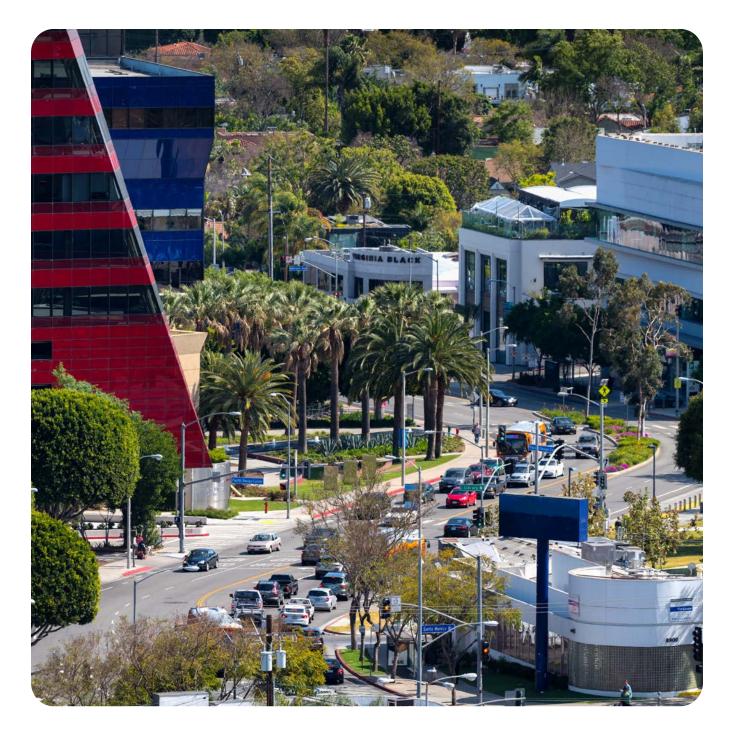
7⋅3 Next Steps

To further West Hollywood's overall resilience to system shocks and stressors, climate disruptions, and other unexpected extreme events and emergencies, the City should build upon the recommendations in this plan and the successes and lessons learned during its response to the COVID-19 pandemic. It should also develop a West Hollywood Resilience Plan centered around equitable outcomes focused keenly on strengthening the City's social and physical infrastructure, integrating climate preparedness and emergency response, and bolstering its adaptive capacity and social cohesion among community members.



Chapter 8

Progress Monitoringand Reporting



Overview

The 2021 CAAP is a community-wide plan to mitigate greenhouse gas emissions, enhance environmental sustainability, and improve climate-readiness in the City of West Hollywood. The City will use various implementation methods such as code updates, financing and incentives, program development, education and outreach, and partnerships to accelerate climate progress. The Long-Range Planning Division will evaluate and monitor the effectiveness of CAAP measures and work with City Staff to amend the plan if it is not achieving the proposed GHG reduction and adaptation targets. It will update community-wide and municipal GHG inventories every three years, prepare annual reporting updates for City Council, and share biennial progress reports through the City's website and community forums. The CAAP will serve as a living document and it will be updated in five years to reflect and respond to changing federal and state regulations, improvements in technology, and changes in market conditions and economic trends that relate to climate change.

Carbon Neutrality and Offsets

Through this CAAP, the City of West Hollywood has set a goal of achieving carbon neutrality by the year 2035. This plan puts forth a set of measures and actions to reduce emissions from buildings, transportation, and waste, among other community activities. To achieve Carbon Neutrality, the City needs to decarbonize existing buildings and transition to zero-emission vehicles over the next 25 years. However, there are certain emission sources (such as landfilled waste, refrigerants and fluorinated products) that cannot be eliminated or mitigated using present day technologies. Residual emissions from these sources may need to be addressed by purchasing certified carbon credits under CARB's Compliance Offset Program. Currently, the CARB issues verifiable offset credits for the following projects:

- Livestock Projects
- Mine Methane Capture (MMC) Projects
- Ozone Depleting Substances (ODS) Projects
- Rice Cultivation Projects
- · U.S. Forest Projects
- Urban Forest Projects

The City of West Hollywood anticipates that technologies introduced in the future would reduce the need for Carbon Offsets. However, if residual emissions cannot be eliminated through new technologies, the City will purchase certified carbon credits in compliance with CARB protocols. The City is constrained by its urban form and geography, and cannot leverage offset projects within its own boundaries. The City will therefore support offset projects in communities within Los Angeles County when available, followed by offsets within California. City Staff will re-evaluate the need for offsets every five years as the CAAP is updated.

Conclusion



The Time is Now

Climate change is a global problem, and it is inherently unfair. We must take action today to dramatically reduce greenhouse gas emissions and avoid the worst impacts of global climate change, which are disproportionately borne by individuals and communities that are already impacted by unequal access to housing and economic opportunity. Moving towards an equitable, carbon neutral future requires progressive, innovative thinking and strong leadership that will go beyond business-as-usual to plan and act differently.

We must also be proactive about preparing for the impacts of a changing climate, in order to enable our residents, businesses, institutions and systems to not only survive, but thrive in the face of shocks and stresses. Investing in climate adaptation will not only protect our neighbors most impacted by a changing climate, but will help to ensure the health, prosperity, and sustainability of West Hollywood for future generations.

The City of West Hollywood will lead this community-wide endeavor by enacting the climate measures outlined in this Climate Action and Adaptation Plan. Our efforts will help to ensure that WeHo is a sustainable, vibrant, livable, and equitable city for current and future generations. Many of the measures will bring economic benefits, such as reducing energy costs for businesses and households, reducing the City's exposure to financial risks, and bolstering our community's economic competitiveness. Looking beyond carbon reduction alone, there are numerous environmental co-benefits, from clean air and clean water, to improved urban habitat and biodiversity. And the measures will seek to rectify social inequities that have resulted from discriminatory practices, striving to equitably distribute the benefits and burdens.

That being said, everyone has a part to play in reducing our carbon footprint and building a resilient community. Individuals, businesses, and government leaders must work together to make the necessary changes, and strive for a carbon neutral and climate resilient West Hollywood.

We are all in this together.

Glossary

A	
Active transportation	A mode of transportation that includes walking, running, cycling, scootering, skateboarding and other human-powered forms of transportation. It can also include low-speed electrical devices such as motorized wheelchairs, e-scooters and electric-assist bicycles. Also referred to as Active Mobility or Non-Motorized Transport.
Activity data	A quantitative measure of a level of activity that results in GHG emissions. Activity data is multiplied by an emission factor to derive the GHG emissions associated with a process or an operation. Examples of activity data include kilowatt-hours of electricity used, the quantity of fuel used, the output of a process, hours equipment is operated and distance traveled.
Adaptation	The process of adjustment to climate change and its current or projected effects. Adaptation seeks to mitigate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate change and its effects.
Adaptive capacity	The combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience.
Anaerobic digestion	A controlled process to treat organic matter from separated municipal waste (food waste and green waste) or sewage in anaerobic conditions to produce biogas and usable soil products. Also referred to as Digestion.
В	
Baseline year	A historical datum (e.g. year) against which a city's emissions are tracked over time.
Baseline year emissions goal	Mitigation goal that aims to reduce or control the increase of emissions relative to an emissions level in a historical base year.
Baseline forecast	A GHG emissions scenario that is based on the assumption that no mitigation policies or measures will be implemented beyond those that are already in progress and/or those that are planned to be adopted. Baseline scenarios are not intended to be predictions of the future, but rather counterfactual constructions that can serve to highlight the level of emissions that would occur without further policy effort. Also referred to as Business-as-Usual Scenario.
Benchmarking	The process of measuring performance of a certain metric and comparing to similar cases in order to identify areas for improvement.
Biodiversity	The variety and variability of indigenous plants and animals and other non-living ecosystem components. Biodiversity can be observed on macro levels, micro levels and in between. Biodiversity is complex, fragile and increasingly threatened by urbanization and climate change. Rich biodiversity supports many aspects of human life from food and medicine to environmental quality.
Biogas	A by-product of the breakdown of organic matter in an oxygen-free environment like a sanitary landfill, an anaerobic biological reactor or fermentation tank. Biogas is a combustible compound composed primarily by methane and carbon dioxide and can be processed to be used as fuel for turbines to generate electricity.
Biogenic emissions (CO2(b))	Emissions that result from the natural carbon cycle, as well as from the combustion or processing of biomass materials, including those used to make biofuels (e.g. trees, crops, animal waste and the organic portions of municipal waste and wastewater).
Biological treatment of waste	A controlled process to treat organic matter from separated municipal waste (food waste and green waste) or sewage in anaerobic conditions to produce biogas and usable soil products. See also Composting - a method for biological treatment of waste.
Business-as-usual (BAU) scenario	A baseline scenario projecting GHG emissions based on a set of reasonable assumptions and data that best describe events or conditions that are most likely to occur. This scenario is used to understand future emissions in the absence of city mitigation activities and based on historical data, including GDP, population and sectoral energy intensity. See also Baseline Forecast.

С	
Carbon neutral	A city that has achieved and demonstrated in a given year, net-zero GHG emissions from:
	 Fuel use in buildings, transport, and industry (scope 1)
	The use of grid-supplied energy (scope 2)
	 The treatment of waste generated within the city boundary (scope 1 and 3)
	And, where a city accounts for additional sectoral emissions in their GHG accounting boundary, net-zero GHG emissions from all additional sectors in the GHG accounting boundary. Also referred to as Emissions Neutral, Net-Zero Emissions or Net-Zero Carbon.
Carbon offsets	A mechanism for canceling out in accounting terms residual GHG emissions by developing, funding or financing carbon credit projects (and retiring associated credits) that avoid or sequester GHG emissions outside of the city GHG accounting boundary and exhibit environmental integrity principles. Cities must retain the beneficial ownership rights to the GHG emission reductions claimed from the project, and those reductions must be retired or otherwise canceled, such that they may not be used again.
Carbon sequestration	The process of capturing and storing carbon in a carbon pool (e.g. Earth's crust, ocean, organic matter in soil).
Catchment area	In hydrology, this is the area where surface water flows, typically into a river or lake. In other contexts, catchment area refers to the area from which people come to use a particular service, also referred to as the area served.
Climate action	Any policy, program, project or activity initiated with the intention to provide some contribution to climate mitigation or adaptation.
Climate action plan	A strategic document (or series of plans and documents) that demonstrates how a city will deliver on its commitment to address climate change.
Climate change	A long-term shift in global climate patterns predominantly caused by human activities. Often, climate change refers specifically to the rise in global temperatures from the mid-20th century to present that is attributed to anthropogenic, or human-induced, greenhouse gas emissions. Often referred to as Climate Crisis or Climate Emergency to communicate the urgent need to reduce emissions and adapt. When discussing climate change, the term Global Warming is often used to communicate the general warming trend in global temperatures. However, sometimes this term may instead be referred to as Global Heating in order to communicate the severity.
Climate hazards	Short or long-term climate events that have the potential to cause damage or harm to humans and natural systems. These include meteorological, climatological, hydrological, geophysical or biological events.
Climate vulnerability assessment	An evaluation to understand the likelihood of future climate hazards and the potential impacts of these hazards on cities and their inhabitants and the built environment. The assessment is an essential tool for informing the prioritization of actions and investment into climate adaptation and resilience.
Co-benefit	Non-greenhouse gas-related benefits of climate actions. Measuring co-benefits examines how climate action is interrelated with and delivers outcomes for provision of basic services, health, prosperity and other sustainable development agendas.
CO2 equivalent (CO2e)	The universal unit of measurement to indicate the global warming potential (GWP) of each GHG, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate the climate impact of releasing (or avoiding releasing) different greenhouse gases on a common basis.
Composting	A controlled process to break down organic matter sourced from separated waste or agricultural residues in aerobic conditions to stabilize the biological activity or organic matter to reduce its environmental impact and produce usable by-products like soil amendments, filling material and biofertilizers.

Concentration	In the case of air pollution, concentration is the amount of a pollutant in a given quantity of air. Concentrations are commonly expressed as a mass per unit volume (e.g. microgram per cubic meter) or volume mixing ratio (e.g. part per billion or parts per million). Concentrations are often expressed as daily or annual averages and can be adjusted to take into account the density of the exposed population (e.g. population-weighted annual average concentration).
Consumption-based emissions	A greenhouse gas accounting approach that captures direct and lifecycle GHG emissions of goods and services (including those from raw materials, manufacture, distribution, retail and disposal) and allocates GHG emissions to the final consumers of those goods and services, rather than to the original producers of those GHG emissions.
Cool surfaces	High albedo, or reflective surfaces, that reflect more light and trap less heat than conventional surfaces and help to mitigate the heat island effect. Examples include cool roofs, green roofs and light-colored pavement and roads.
Cooling centers	Community facilities that offer relief from extreme heat and keep people safe from severe temperatures. These spaces also provide other important resources such as potable water, toilets, medical attention or social services.
D	
Decarbonization	Process of reducing embodied or operational GHG emissions. Typically refers to a reduction of the carbon emissions associated with energy consumption, industry and transportation. The intention to decarbonize the electric power grid is often referred to as Grid Decarbonization.
Distributed and renewable energy resources	Distribution system-connected devices that use renewable energy sources including small hydro, biomass, biogas, solar, wind and geothermal, to produce power. They can operate stand-alone or as a part of a decentralized energy network and may or may not be connected to the centralized power grid.
Е	
Electrification	The process of transitioning away from technologies that use fossil fuels to technologies that use electricity. Electrification of systems paired with a power grid with 100% renewable energy sources can significantly reduce GHG emissions.
Emission factor (EF)	A multiplier that converts activity data into GHG emissions data (e.g., kg CO2e emitted per liter of fuel consumed, kg CO2e emitted per kilometer traveled) or other outcomes (beyond GHGs) such as PM2.5, SO2, NOx, NH3, etc.
Embodied emissions/ embodied carbon	In the built environment, embodied emissions refer to the emissions related to the extraction of raw materials, their manufacturing, assembly during construction, any maintenance or replacements, the disassembly and demolition and any associated transport, waste and end of life impacts. Embodied emissions exclude operational emissions.
Emissions scenario / trajectory	Greenhouse gas emissions projected based on a set of economic, technological and behavioral changes over time. Also referred to as Emissions Forecast or Emissions Reduction Scenario.
Emission reduction potential	A measurement of the potential to decrease greenhouse gas (GHG) emissions from a particular sector or through an action. The abatement potential is measured in GHG emissions (e.g. tons of carbon dioxide equivalent).
Energy efficiency	The use of less energy to provide the same service. A process, building, machine or other energy-consuming object is more energy-efficient if it delivers more functions or services for the same energy input, or the same function or service for less energy input, compared to a conventional process.
Energy efficiency retrofits	The process of upgrading inefficient equipment or appliances by replacing them with more efficient systems or appliances. These retrofits can also involve building upgrades such as insulation changes and envelope improvements to reduce heating and cooling demand. Deep Energy Retrofits are those energy efficiency retrofits that affect more building systems and deliver major energy savings.

Technologies that collect generated energy so it may be used at another time. Energy storage includes electric systems such as batteries as well as thermal systems such as hot or cold water storage tanks. Energy storage can enhance the technical and economic viability of a distributed generation system, balance fluctuations in newable generation and operate critical systems during grid outages and emergency events. Energy use intensity (EUI)		
by another factor, such as per square meter or per person. These factors allow for building performance across buildings of different types and sizes. Also sometimes referred to as Building Energy Intensity. Envelope efficiency Designing the thermal envelope of a building to minimize energy use by reducing the heating and ocoling demands. A passive design strategy will typically reduce air leakage, install thermal insulation and will optimize glazing design to manage solar heat gains. Good envelope efficiency can extend the life of mechanical equipment and is cost-effective at time of construction but can be difficult and/or costly to retroit into existing buildings. Equity The absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically. As opposed to the concept of equality where everyone is given equal access, equity provides proportional access to redress historical and current disparities and ensure the same level of opportunity for all. Exposure The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas or areas with high levels of pollution or toxic substances. Frontline communities Carbon-based fuels from fossil hydrocarbon deposits, including coal, oil and natural gas, that emit greenhouse gases and other pollutants when combusted and/or leaked into the ocean, groundwater or atmosphere. Frontline communities Communities that experience the "first and worst" impacts of climate change. These include, but are not limited to, youth, older adults, women, LGBTQIA+ individuals, Native American people, documented and undocumented immigrants, people with disabilities and chronic illnesses, people experiencing linguistic isolation, outdoor workers, and those with limited access to transportation, critical infrastructure, and/or municipal services. Geobal warming potential (GWP) Global warming potential (GWP) The GPC is a proto	Energy storage system	includes electric systems such as batteries as well as thermal systems such as hot or cold water storage tanks. Energy storage can enhance the technical and economic viability of a distributed generation system, balance fluctuations in renewable generation and operate
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	Greenhouse gas inventory	
Houseless or Homeless Lacking or in need of a house or home.	н	
	Houseless or Homeless	Lacking or in need of a house or home.

1	
Impacts	The consequences of realized risks on natural and human systems, where risks result from the interactions of climate-related hazards (including extreme weather and climate events), exposure and vulnerability. Impacts generally refer to effects on lives, livelihoods, health and well-being, ecosystems and species, economic social and cultural assets, services (including ecosystem services) and infrastructure. Impacts may be referred to as consequences or outcomes and can be adverse or beneficial.
Impervious surfaces	Solid surfaces, such as paved roads and car parks, which do not allow water to penetrate the ground below.
Inclusive climate action	Action ensuring that efforts to address climate change help create sustainable cities for all. Climate change is not solely an environmental issue but is inextricably linked to challenges of eradicating poverty and increasing inclusiveness.
Indicator	A means of measuring the state or level of an impacted phenomenon. Indicators are expressed using metrics which define their units of measurement. For example, air quality is measured by the concentration of certain particles or molecules in the air, such as milligrams of particulate matters per cubic meter of air or parts-per-million (ppm). Also sometimes referred to as Key Performance Indicators (KPI).
Interdependencies	Linkages within and across different infrastructure sectors (e.g. energy, transportation, telecommunications, water/wastewater, solid waste and food), and the implications for the provided services caused by the adverse ripple effects from climate change. These ripple effects include an increase in the magnitude and frequency of extreme weather events such as coastal and inland flooding, heatwaves, droughts and wildfires. Identifying infrastructure interdependencies and climate impacts can serve as a first step in reducing risks to systems.
L	
Low carbon materials	Types of materials with low embodied emissions which include:
	 Materials from renewable bio-based sources, such as timber, bamboo, cork, straw, hemp, earth and natural fiber;
	 Innovative materials manufactured with low process and energy emissions;
	Reused materials;
	Materials with high recycled content.
М	
Mitigation	The process of limiting greenhouse gas emissions for the purposes of lessening the impacts of climate change.
Mode share	A number or percentage of users or trips, using a particular type of transportation such as driving a single-occupancy vehicle, carpooling, riding public transit, walking or cycling.
Mode shift	The transition from using one habitual form of travel, or mode, to another. Transportation modes include mass transit, non-motorized transit and automobiles.
Monitoring, evaluation, and reporting (MER)	The long-term process for delivering a climate action plan demonstrated through a process of setting key performance indicators, ongoing monitoring, impact evaluation and progress reporting.
	Monitoring is the continuous, systematic collection of data on specified indicators to provide management of an ongoing intervention.
	Evaluation is the process by which a city assesses and understands changes over time, measured by indicators and against the baseline. Contrary to monitoring, which is ongoing, evaluation is conducted periodically.
	Reporting is the process of presenting monitoring data and analysis to stakeholders for information and/or knowledge-sharing. Reporting may be used to inform program management, demonstrate accountability, raise funds or promote wider learning.

N	
Net-zero carbon	A building where the annual carbon dioxide emissions associated with operations are zero or negative. Net zero carbon buildings are highly energy-efficient and are often fully powered by on-site or off-site renewable energy sources. See also Carbon Neutral and Decarbonization.
0	
Organic waste	Biodegradable waste containing materials from living organisms. Organic waste may include food waste, garden and park waste, non-hazardous wood waste and sludge, that can be processed through composting or anaerobic digestion. Disposed organic waste is the primary source of GHG emissions from the waste sector. When disposed of in a landfill, organic waste produces methane, a powerful GHG with 87 times the global warming potential of CO2 in the first 20 years after its release.
P	
Paris agreement	The process of limiting greenhouse gas emissions for the purposes of lessening the impacts of climate change.
R	
Recycling	The process through which waste materials are converted into new materials, goods and products. The recycling process starts by collecting and separating the recyclable materials in the waste stream and aggregating them for further processing.
Renewable energy	Energy that comes from resources which are naturally replenished on a human timescale, such as sunlight, wind, tides, waves, bioenergy, hydropower and geothermal. Hydrogen is a renewable energy source when produced through electrolysis powered by renewable electricity.
Residual emissions	The emissions remaining after all technically and economically feasible opportunities to reduce emissions in all covered scopes and sectors have been implemented.
Resilience	City resilience describes the capacity of cities to function so that the people living and working in cities – particularly low-wealth and vulnerable people – survive and thrive no matter what stresses or shocks they encounter. Climate resilience is a subset of resilience describing the capacity of cities to respond to climate hazards and risks.
Risk	Dependent on the likelihood (sometimes referred to as probability) of an event multiplied with the hazard impacts (sometimes referred to as consequences).
S	
Scenarios	Future greenhouse gas emissions and trends that are expected to occur given a defined set of assumptions. Multiple scenarios are often created for comparison and planning purposes. See also Baseline Forecast, Business-as-usual Scenario and Emissions Trajectory.
Scope 1 emissions	According to the GPC Protocol, GHG emissions from sources located within the city boundary.
Scope 2 emissions	According to the GPC Protocol, GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the city boundary.
Scope 3 emissions	According to the GPC Protocol, all other GHG emissions, besides scope 1 and 2, that occur outside the city boundary as a result of activities taking place within the city boundary.
Shocks and stresses	Shocks are sudden events that threaten or impact a city's immediate well-being such as earthquakes, fires, landslides, public health emergencies, civil unrest or financial crises. Stresses are longer-term, chronic challenges that weaken natural, built and economic or human resources such as inequity, crime and violence or disparities in employment, health and education.
Social infrastructure	The services and programs that support quality of life such as: recreation, day care, outreach to people experiencing houselessness, newcomer/ immigrant services, healthcare services, educational facilities, mobility options and others.

Т	
Transit-oriented development (TOD)	A planning strategy that explicitly links land-use and transportation by focusing on mixed housing, employment and commercial growth around transit nodes. TODs can reduce the number and length of vehicle trips by encouraging more bicycle/pedestrian and transit trips and can support transit investments by creating the density around stations to boost ridership. Also sometimes referred to as Transport-Oriented Development.
Transportation demand management (TDM)	Strategies to change travel behavior in order to reduce traffic congestion, increase safety and mobility and conserve energy and reduce greenhouse gas emissions. Strategies may include ridesharing, telecommuting, park-and-ride programs and alternative work schedules.
U	
Urban agriculture	Agriculture practices in urban areas that take the form of back-garden, rooftop, or balcony gardening, community gardening in vacant lots or parks, roadside agriculture and livestock grazing in open space.
Urban heat island (UHI) effect	A measurable increase in ambient urban air temperatures resulting primarily from the replacement of vegetation with buildings, roads and other heat-absorbing infrastructure. The heat island effect can result in significant temperature differences between rural and urban areas.
V	
Vehicle miles travelled (VMT)	A measurement of kilometers travelled by vehicles within a specified area for a specified time period. Also sometimes referred to as Vehicle Miles Travelled (VMT).
Vulnerability	The conditions determined by physical, social, economic and environmental factors or processes that increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.
w	
Waste diversion	The process to prevent certain streams in solid waste from going to disposal to landfills or incineration, often with the intention of producing usable valuable by-products. Diversion includes source reduction, reuse, recycling and treatments such as composting or anaerobic digestion.
Waste generation	The total amount of waste created within a city (or by a business or residence), including that which is disposed of and that which is diverted (i.e., recycled, donated, composted).
Waste treatment	The biological, chemical or mechanical processing of specific waste streams to recover usable resources contained in the waste materials, reduce the environmental impact of such materials and reduce the amount of waste that is disposed in landfills or treated by incinerators.
z	
Zero-emission vehicles	Vehicles that produce no tailpipe emissions. Generally, ZEVs feature electric powertrains either from a battery or a hydrogen fuel cell. ZEVs may still be responsible for some greenhouse gas emissions, if the GHG content from the electricity generation comes from fossil fuel sources.

Appendix



Appendix A: Greenhouse Gas Accounting and Projections Methodology

Appendix B: Climate Vulnerability Assessment

Appendix C: Implementation Matrix

