



# 2017 City of West Hollywood Climate Action Plan Annual Progress Report

**May 2018**

Prepared by Rincon Consultants, Inc.





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*The City of West Hollywood  
remains committed to impactful  
climate action and sound  
environmental policies that lead  
to a cleaner, greener way of life  
for its community.*

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## EXECUTIVE SUMMARY

The City of West Hollywood adopted a Climate Action Plan (CAP) in September 2011 that identifies community and municipal strategies to reduce greenhouse gas (GHG) emissions and improve sustainability both within municipal operations and the community. For each sector (e.g. Transportation and Mobility, Energy Use and Efficiency, etc.), the CAP provides specific measures and action items to support its successful implementation. A full list of CAP measures and actions for each sector can be found in Appendix A.

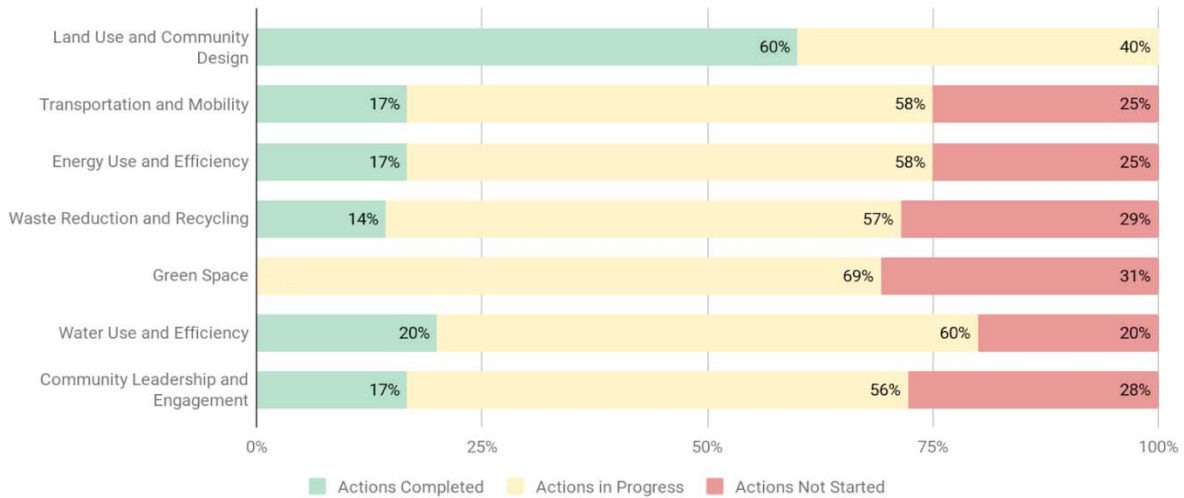
The City typically reports to the State of California Governor's Office of Planning and Research on CAP implementation progress annually as a companion to the General Plan 2035 Annual Progress Report. The Climate Action Plan Annual Progress Report is a synopsis of the City's progress in implementing measures identified in the CAP and in meeting its greenhouse gas emissions (GHG) reduction target of 20 to 25 percent below 2008 emission levels by 2035. This target represents the community's aspirations to reduce its carbon footprint through actions achieved at the city and statewide level.

The CAP Annual Progress Report now utilizes a new CAP Implementation and Monitoring Tool, which is a calculation model that better facilitates the collection and analysis of the City's community and municipal emissions data. The creation of this tool was made possible by a grant from the Strategic Growth Council Sustainable Communities program. The tool was completed in late 2017 and is the basis for the data in this report. It will be utilized moving forward for subsequent CAP progress reports.

### **CAP Implementation Progress**

The City has made significant progress in implementing its Climate Action Plan, with 75 percent (81 of 108 action items across all sectors) being completed or in progress (see Figure 1). The sectors with the highest percentages of action items completed (green) or in progress (yellow) are Land Use and Community Design, Water Use & Efficiency, Energy Use and Efficiency, and Transportation and Mobility at 100 percent, 80 percent, 75 percent, and 73 percent, respectively. The Water, Transportation, and Energy Sectors experienced the most significant advancements in new industry trends and technologies since 2011, which has facilitated the city's ability to move forward on its CAP goals in these areas. This progress is also reflective of recent opportunities for the City to advance energy efficiency and renewable energy initiatives, as well as the City's commitment to providing increased public transit access and multimodal transportation options. The amount of action items in progress or completed in each remaining sector ranges from 69 to 71 percent. Regarding actions not yet started (shown in red), the major reasons for the slower pace in progress were: (1) lack of direct control over infrastructure, (2) limitations in land available for implementation, (3) reliance on a third-party or regional collaboration, and (4) obsolescence of the action item due to technological advancements. This report discusses the implementation progress of each sector in more detail, including action items not yet started and the impact of new action items not originally identified in the CAP.

## CLIMATE ACTION PLAN IMPLEMENTATION PROGRESS BY SECTOR (2011-2017)

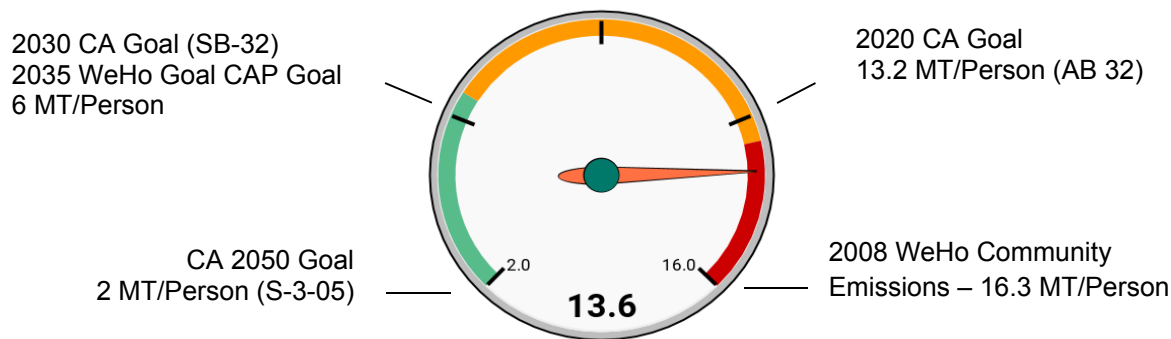


**Figure 1. CAP Implementation Progress by Sector.** This figure represents the City’s progress on implementing measures identified in the CAP. Each bar represents the City’s progress on CAP actions by major sector: Land Use & Community Design, Transportation & Mobility, Energy Use & Efficiency, Waste Reduction and Recycling, Green Space, Water Use & Efficiency, and Community Leadership & Engagement. Completed action items are shown in green, action items in progress are shown in yellow, and items not yet started are shown in red.

### CAP Emission Progress

The City of West Hollywood has made significant progress on reducing GHG emissions, nearly meeting its 2020 goal and advancing towards the State’s 2030 and 2050 goals (see Figure 2). Overall, the City has reduced emissions from 16.3 to 13.6 MT per person per year since 2008.

A majority of these reductions have been through cleaner energy sources, improvements in waste management and diversion, more efficient water infrastructure, and major improvements in building efficiency and energy consumption. As the City continues to take steps to improve its efficiency through policy milestones like the Green Building Program Update and large-scale advancements such as the Clean Power Alliance, its per capita emissions should continue to decrease. A more comprehensive update on transportation-related emissions should reveal a reduction in greenhouse gas emissions from this sector since 2008 and will further foster a downward trend in per capita emissions. The City is committed to reaching or even exceeding the goals set by the State in SB 32 by making consistent progress in sustainability efforts at the municipal level and community-wide.



**Figure 2. CAP Emission Progress** The dial above shows West Hollywood’s overall progress towards local and state emission reduction goals. As of 2016, the City has reduced its emissions from 16.3 MT CO<sub>2</sub>e per person to 13.6 MT CO<sub>2</sub>e per person. To meet the goals of AB 32, the City has to reduce an additional 0.4 MT CO<sub>2</sub>e per person by 2020.

## Lessons Learned

The actions taken since adopting the CAP in 2011 have provided lessons in best practices and considerations for designing, planning, implementing, and tracking future CAP initiatives. Key lessons include:

- More Consistent Data Monitoring - By following changes to emissions on an annual basis, the City gains a better understanding of the measures that are most effective in reducing GHG emissions. Moving forward, the City will use the CAP Implementation and Monitoring Tool to collect and standardize data in a consistent format for its annual reporting on the CAP.
- More Verifiable Indicators of Progress - Developing measures that are actionable and trackable are essential for an effective CAP. By identifying more quantifiable implementation measures and putting more emphasis on showing progress through annual monitoring of emissions reduction, the City can be more strategic in implementing the remainder of the CAP.
- Better Consideration of Evolving Technologies - Since the adoption of the CAP in 2011, significant advancements have been made in technologies that positively impact GHG emissions (e.g., cleaner vehicles, smart energy and water meters, etc.). Future CAP updates may benefit from being more flexible and less prescriptive when developing strategies for emissions reduction to accommodate ever-changing trends in automation and new technologies.
- More Measures that fall within City’s Control or Influence - Several of the CAP items that had no reported action (e.g., accelerating smart grid integration, advocating for extended producer responsibility, etc.) were reliant on the possibility of regional partnerships, the City’s utility providers, or other third-parties. Future CAP updates may want to focus on leveraging initiatives currently offered by direct utility providers (rather than creating new programs) and aligning with existing entities with shared environmental goals that can further specific CAP outcomes through localized expertise and additional personnel.



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## INTRODUCTION

The Climate Action Plan Annual Progress Report is a synopsis of the City's progress in implementing measures identified in the City of West Hollywood's 2011 Climate Action Plan (CAP) and in meeting its greenhouse gas emissions (GHG) reduction target of 20 to 25 percent below 2008 emission levels by 2035. This target represents the community's aspirations to reduce the its carbon footprint through actions achieved at the city and statewide level. The City typically reports to the State of California Governor's Office of Planning and Research on CAP implementation progress annually as a companion to the General Plan 2035 Annual Progress Report.

The CAP Annual Progress Report now utilizes a new CAP Implementation and Monitoring Tool, which better facilitates the collection and analysis of the City's community and municipal emissions data. The creation of this tool was made possible by a grant from the Strategic Growth Council Sustainable Communities program. The tool was completed in late 2017 and is the basis for the data in this report. It will be utilized moving forward for subsequent CAP progress reports and infographics.

This section provides a brief overview of the 2011 Climate Action Plan, discusses the structure of the 2017 CAP Annual Progress Report, and highlights the GHG emission calculation methodologies used to determine the City's 2016 GHG inventory and associated variations in data from the original 2008 GHG inventory.

### **City of West Hollywood Climate Action Plan**

The City of West Hollywood adopted a Climate Action Plan (CAP) in September 2011 that identifies community and municipal strategies to reduce greenhouse gas (GHG) emissions and improve sustainability both within municipal operations and the community. The CAP establishes the City's baseline emissions as 583,213 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e), based on the 2008 GHG emissions inventory, and sets a goal to reduce GHG emissions by 20 to 25 percent below 2008 levels by 2035. To achieve this target, the CAP details a comprehensive set of measures and implementation actions. These measures and actions are organized into the following sectors:

- Land Use & Community Design
- Transportation & Mobility
- Energy Use & Efficiency
- Waste Reduction & Recycling
- Green Space
- Water Use & Efficiency
- Community Engagement & Leadership

For each sector, the CAP includes measures to guide West Hollywood towards becoming a more efficient, livable, and equitable City, while also contributing to the State goal of reducing GHG emissions. Some measures are designed to directly reduce community-wide emissions, while other measures are designed to support the City's overall sustainability goals. For each measure, the CAP provides specific action items to support its successful implementation. A full list of CAP measures and actions can be

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found in Appendix A. The City intends to prepare a comprehensive CAP update in 2019 to reflect and incorporate new industry trends and advancements in technology to assess CAP goals.

### **City of West Hollywood CAP Annual Progress Report**

For the CAP to be an effective tool, it is important that implementation of its measures and action items be monitored and the results of its implementation be tracked. This will aid in understanding the most effective measures and identifying opportunities and challenges for the City to focus on in the future. The report is divided into two sections:

- **Community Emissions:** Provides a progress report for the following CAP sectors: Land Use and Community Design, Transportation and Mobility, Energy Use and Efficiency, Waste Reduction and Recycling, Green Space, and Water Use and Efficiency.
- **Municipal Emissions:** Provides a progress report for the CAP's Community Leadership and Engagement sector, as well as for municipal emissions not covered in the 2011 CAP, such as waste and fleet emissions.

This report is further organized by CAP sector, with the following components included for each sector:

- **Emissions Progress:** Summarizes and explains the emission reduction trends observed in each sector between 2008 and 2016.
- **Progress Snapshot:** Provides visual representations of sector-related emission changes and sector-related activities (e.g., changes in energy use, water and wastewater use, etc.) from 2008 to 2016 and of the City's implementation progress. The City's implementation progress is represented in bar graphs. Red indicates that no action has been taken, yellow indicates the action is pending or underway (i.e., initial development), and green indicates that implementation is ongoing or complete. For example, a solid green bar would indicate that all action items for a measure are ongoing or complete.
- **Implementation Progress:** Highlights some of the key measures implemented since the adoption of the CAP and in the reporting year (2016), and provides an in-depth look at one or more areas of success in the past year. This section lists the climate action measures and implementation status of the corresponding action items for each sector. This section also summarizes additional emissions-reducing initiatives not included in the CAP, but being implemented by the City. Lastly, this section further identifies and discusses CAP items not yet pursued by the City.
- **Next Steps:** Identifies opportunity areas for further emission reductions.

### **GHG Emissions Calculation Methodologies**

Generation of GHG emissions is largely linked to human activities, such as energy consumption and use of gas-powered vehicles. Consequently, data regarding such activities serves as a good general indicator of GHG emissions trends. This report includes an updated inventory of GHG emissions attributable to

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activities by the West Hollywood community at-large as well as the City's municipal activities for the year 2016. The data for this 2016 inventory was collected for the following emission sources:

- electricity consumption (*kWh*),
- natural gas use (*therms*),
- landfilled waste (*tons of waste*),
- transportation (*vehicle miles traveled [VMT]*)
- water use and wastewater supply, treatment, and transport (*hundreds of cubic feet [hcf] of water*)
- municipal fleet fuel usage (*gallons of gasoline and gallons of diesel*)

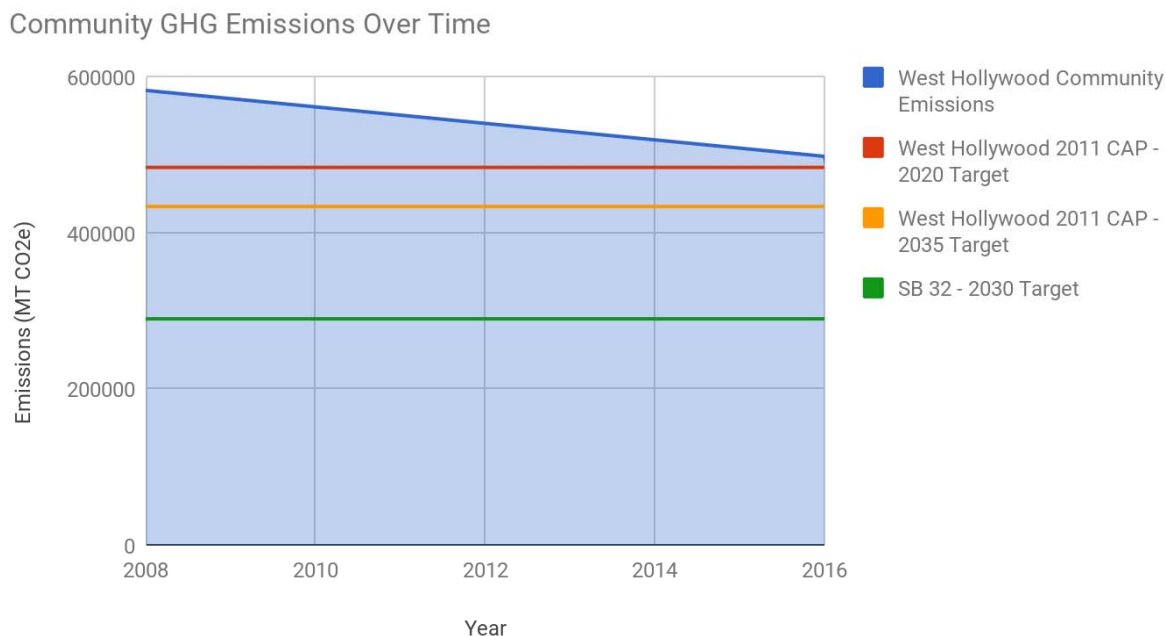
Specific emission factors were applied to West Hollywood's community and municipal activities in order to evaluate the impact of these activities on reducing GHG emissions. Each emission factor was either developed to reflect conditions specific to West Hollywood in 2016 or derived from industry best practices. For example, the emission factor for electricity was based on the specific electricity portfolio for Southern California Edison, which is currently the City's electricity provider. For water and wastewater, the emission factor was based on the energy required to transport, treat, and dispose of West Hollywood's water and wastewater. Because emission factors are location and time-specific, they are expected to evolve over time as conditions change. All emission factors and related calculations used to generate the 2016 emissions inventory are provided in Appendix B.

The baseline emissions inventory conducted in 2008 used different methodologies than those used for the 2016 inventory. The 2016 methodologies and emissions factors reflect current industry best practices and are more tailored to the conditions of West Hollywood. The City will use these updated methodologies and emissions factors for future progress reports. Consequently, while the overall trend in emissions reported in this document is likely accurate, the change in emissions between 2008 and 2016 may partially reflect differences in methodologies rather than an actual change in emissions. Moving forward, the City intends to be more consistent with the methodologies used to calculate its emissions year over year.

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## SECTION I. COMMUNITY EMISSIONS

Community emissions include all emissions generated within the City and associated with City operations, including municipal emissions. Figure 3 presents the total community emissions over time for West Hollywood. As seen below, the City has made substantial progress towards its 2020 GHG reduction goals. Annual emissions have decreased for multiple reasons, including implementation of the City’s CAP, as well as State and regional legislation that have decreased energy-related and transportation fuel-related emissions.



**Figure 3. Community GHG Emissions Over Time.** The City’s annual GHG emissions (MT CO2e) over time are depicted along with emission targets established in the City’s 2011 CAP for 2020 (red) and 2035 (purple), and in Senate Bill (SB) 32 for 2030 (green). Data for 2008 annual emissions were taken from the 2008 West Hollywood GHG inventory. Emission data for subsequent years were calculated based on sector-level activity as described in Appendix B.

Figure 4 below graphically illustrates the distribution of and change in community emissions by source between the baseline year (2008) and the reporting year (2016), while Table 1 provides the corresponding numerical summary of changes in community emissions. As shown in Figure 4, transportation emissions continue to comprise the majority of community emissions, followed by electricity and natural gas emissions. It should be noted that an analysis of VMT and transportation emission factors was not conducted as part of this update due to data unavailability. For this report, transportation emissions are conservatively reflected as unchanged from 2008, but future CAP inventories will incorporate changes in transportation emissions. Emissions from all other sources substantially declined, except for waste emissions. However, this slight increase is likely due to a change in methodology used to calculate waste emissions for the 2016 inventory, since waste generation per person declined over the same time period. A more detailed evaluation of these findings is provided in subsequent sections.

### Community Emissions by Source



**Figure 4. Community Emissions by Source.** Each bar in this graph depicts the City’s annual GHG emissions (MT CO<sub>2</sub>e) broken down by source: water and wastewater (dark blue), transportation (aqua), waste (orange), natural gas (red), and electricity (gold). Emissions were calculated based on sector-related activities (see Appendix A for 2016 calculation methodologies). Note that an analysis of VMT and transportation emissions factors was not conducted as part of this update due to data unavailability, and therefore, transportation emissions are conservatively reflected as unchanged from 2008. Future CAP inventories will incorporate changes in transportation emissions.

Emission Source	2008	2016	Change (MT CO <sub>2</sub> e)	Percent Change
Water and Wastewater (MT CO <sub>2</sub> e)	26,745	3,903	-22,842	-85.41%
Transportation (MT CO <sub>2</sub> e)	361,350	N/A	N/A	N/A
Waste (MT CO <sub>2</sub> e)	8,543	8,619	76	0.89%
Natural Gas (MT CO <sub>2</sub> e)	90,130	54,002	-36,128	-40.08%
Electricity (MT CO <sub>2</sub> e)	96,445	70,878	-25,567	-26.51%

**Table 1. Changes in Community Emissions by Source.** Baseline (2008) and reporting year (2016) emissions (MT CO<sub>2</sub>e) are shown for water and wastewater, transportation, waste, natural gas, and electricity sources, as well as the total change in emissions from the baseline to reporting year. Note that an analysis of VMT and transportation emissions factors was not conducted as part of this update due to data unavailability, and therefore, transportation emissions are currently reflected as unchanged from 2008. Future CAP updates will incorporate changes in transportation emissions.



## LAND USE AND COMMUNITY DESIGN

As a completely built-out community, West Hollywood's land use strategy focuses on redevelopment and infill development in five commercial sub-areas located throughout the City, and in Transit Overlay Zones (TOZ).

The 2008 GHG inventory did not account for any specific land-use related emissions. Instead, it considered the effects of land use comprehensively within the transportation sector. Where people live determines how far they travel to work, for basic necessities, for entertainment, and to other destinations, and influences whether they choose to walk, bike, drive, or use public transit or rideshare. If residents live near bus stops, neighborhood-serving commercial centers, or their workplaces, they are more likely to use alternative lower-emission travel modes than to drive. Recent trends in travel mode share patterns in West Hollywood are also discussed in the Transportation Section.

### Emissions Progress

The recommended measures in this section are primarily supporting measures that reduce GHG emissions. They have not been individually quantified, and were included in the 2011 CAP to support land use strategies identified within the General Plan that reduce GHG emissions in the community.

Unlike the other sectors in this report, a Progress Snapshot was not included in the Land Use & Community Design section due to the absence of quantifiable trend data such as energy consumption or waste generation over time that are a key measurable elements of the 2016 GHG inventory update and are discussed later in this report.

### Implementation Progress

#### CAP Progress to Date

As mentioned previously, the 2011 CAP includes measures that support the reduction of GHG emissions by influencing how people travel to and from destinations within the city. The two measures for this CAP sector are:

- **LU-1.1** Facilitate the establishment of mixed-use, pedestrian- and transit-oriented development along the commercial corridors and in Transit Overlay Zones (TOZ).
- **LU-1.2** Encourage the preservation and reuse of existing buildings.

The City has completed or is in progress on 100 percent of the action items associated with these measures. A full list of all measures and actions in this sector can be found in Appendix A.



### Next Steps

In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following key areas for implementation in the immediate term:

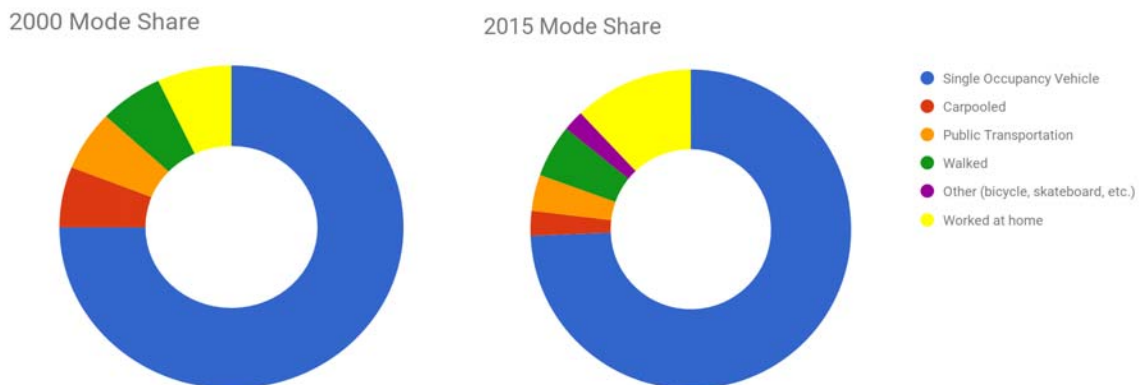
- City Staff is currently updating its Transportation Demand Management (TDM) Program and Ordinance, which would require developers and employers to include programmatic and infrastructure elements that encourage the use of transit modes other than single occupancy vehicles. The completion of the TDM ordinance update is anticipated to be Summer 2018.



## TRANSPORTATION AND MOBILITY

Transportation-related emissions continue to make up the largest component of West Hollywood’s GHG emissions. Successfully reducing vehicle-related emissions relies largely on reducing the vehicle miles traveled (VMT) by the City’s residents and employees, either by making alternative modes of transportation (such as transit, bicycling, or walking) more viable, or by increasing proximity of diverse land uses.

As illustrated in Figure 5 below, the City’s residents did not greatly alter their use of different transportation modes (i.e., “mode share”) from 2000 to 2015, which highlights a key area of opportunity for emission reductions. Many of the measures completed thus far, such as updating the Pedestrian and Bicycle Mobility Plan, provide the foundation for a re-design of City infrastructure and policies to support a shift in behavior away from single occupancy vehicle use. To gain a better understanding of current transportation behaviors in West Hollywood, the City is currently updating its Transportation Demand Management (TDM) ordinance as part of a larger Citywide Traffic & Mobility Study. In the interim, continuing to implement the strategies and action items presented in the Pedestrian and Bicycle Mobility Plan is an important next step in achieving reductions in transportation-related emissions.



**Figure 5. West Hollywood 2000 and 2015 Mode Share.** This figure compares how West Hollywood residents traveled to work in 2000 and 2015. Approximately two-thirds of residents drove alone to work (blue) in both survey years. Carpooling (red) and public transit (orange) use decreased over time from 6% to 3% and 6% to 4%, respectively, while the number of people working from home (yellow) increased over time, from 7% to 12%. The number of people walking (green) to work stayed roughly the same; other modes of transport (purple), including bicycling, was not included as a choice in the 2000 survey, but comprised roughly 2% of the mode share in 2015. These trends are consistent with the larger Southern California region. Source: Census Bureau American Community Survey Data, 2000 and 2015.



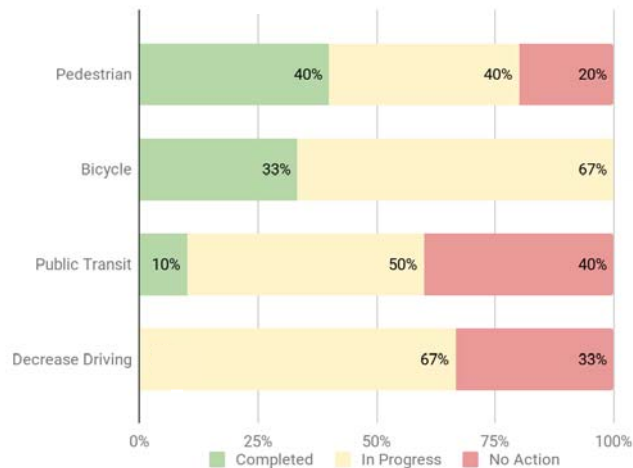


## TRANSPORTATION AND MOBILITY

The following Progress Snapshot summarizes the overall implementation progress associated with the Transportation and Mobility Sector of the 2011 CAP.

### PROGRESS SNAPSHOT: TRANSPORTATION AND MOBILITY SECTOR

#### IMPLEMENTATION



**Figure 6. Transportation Sector Implementation Progress.** Each bar represents the City's progress on CAP action items related to pedestrian, bicycle, public transit, rideshare, and parking requirement measures. For example, the City has completed two action items related to pedestrian transport (green), is in the process of implementing approximately two action items (yellow), and has taken no action on one item (red).

### Emissions Progress

This progress report did not include an analysis of VMT and transportation emission factors at this time due to data unavailability. Therefore, transportation emissions are conservatively reflected as unchanged from 2008, but future CAP inventories will address changes in transportation emissions. In general, however, the City's progress on projects like the development of bike lanes, bike share, and improved public transportation as well as state and federal mandates on increased fuel efficiency in vehicles has positively facilitated reductions in VMTs and transportation-related emissions. An updated traffic study is currently underway and will be incorporated as part of future inventories.

### Implementation Progress

#### CAP Progress to Date

The 2011 CAP includes measures to support transportation by foot, bicycle, public transit, and rideshare, as well as measures to revise parking policies to encourage transit-supportive development. The ten measures for this CAP sector are:

- **T-1.1** Increase the pedestrian mode share in West Hollywood with convenient and attractive pedestrian infrastructure and facilities.



## TRANSPORTATION AND MOBILITY

- **T-2.1** Increase the bicycle mode share by providing accessible, convenient, and attractive bicycle infrastructure.
- **T-2.2** Install bike racks and bike parking in the City where bike parking infrastructure currently does not exist.
- **T-3.1** Support efforts to enhance regional transit service and lobby for fixed-rail transit to West Hollywood.
- **T-3.2** Expand locally-managed transportation services and provide education on public transportation options.
- **T-3.3** Conduct a public transit gap study that analyzes strategies to increase transit use within the City and identify funding sources for transit improvements.
- **T-3.4** Consult with Metro to provide bus stops with convenient bicycle and pedestrian access and essential improvements such as shelters, route information, benches, and lighting.
- **T-4.1** Enhance ride-share infrastructure to facilitate community participation.
- **T-4.2** Pursue a car sharing program with car-share providers and regional partners including the City of Los Angeles, SCAG, and the Westside Cities COG.
- **T-4.3** Assess and implement parking strategies in commercial corridors and in the Transit Overlay Zone (TOZ).

The City has completed or is in progress on 73 percent of all action items in the Transportation Sector since 2011. As illustrated in the Progress Snapshot, the City has made progress in all implementation areas, particularly through improvements to its pedestrian and bicycle network and increasing access to public transit. A full list of all measures and actions in this sector can be found in Appendix A.

### Annual Progress (2016-2017)

In the last year, the City has taken key steps to implement CAP measures related to transportation and mobility.

#### **Key Success!** *Pedestrian and Bicycle Mobility Plan (T-1.1)*

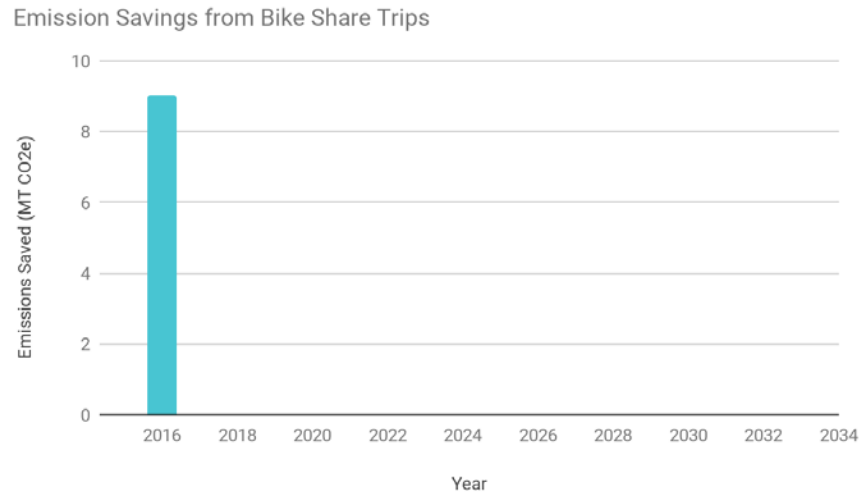
In September 2017, the City of West Hollywood adopted the 2017 Pedestrian and Bicycle Mobility Plan (the Plan). The Plan analyzes existing conditions for pedestrian and bicycle activity, identifies needs for additional infrastructure, and provides a vision and set of prioritized strategies to enhance the City's streets to be more comfortable, safe, and inviting to pedestrians and bicyclists of all ages and abilities. The Plan also identifies five priority projects for short-term implementation, including a bikeway along Almont Drive to connect West Hollywood's bike network to neighboring cities, a bicycle greenway along Willoughby Avenue, and pedestrian improvements along Fountain Avenue.

#### **Key Success!** *WeHo Pedals Bike Share (T-2.1)*

The City of West Hollywood unveiled the WeHo Pedals Bike Share program in August 2016. Since then, the West Hollywood community has pedaled over 24,245 miles and saved almost 6.5 metric tons of GHG emissions from entering the atmosphere (Figure 7).



## TRANSPORTATION AND MOBILITY



**Figure 7. Emission Savings from Bike Share Trips.** This figure illustrates the emissions saved (MT CO<sub>2</sub>e) through the bike share program for each available data year. Every mile biked is assumed to be one mile of vehicle travel saved.

### **Key Success!** *Expansion of Local Transit (T-3.2)*

The City has expanded the route of its free weekend trolley-bus line, The PickUp, to run along Santa Monica Boulevard east to La Brea. The City will be piloting a similar free shuttle service along the Sunset Strip in 2018. The City has also expanded its rush hour CityLineX route to run to the Hollywood and Highland Metro station to provide a connection to the Metro Red Line.

### **Items with No Action**

Nine items (27%) in the Transportation Sector have had no action. The majority of these items involve either working with Metro to identify gaps in public transit (T-3.3) or enhancing rideshare infrastructure (T-4.1). Since the adoption of the CAP, as noted above, the City has prioritized efforts to work with Metro on securing a light-rail transit line to connect the City with the existing regional rail network. Thus, the outcome of this effort, if successful, parallels the intended results of a public transit gap study (T-3.3), which is to substantially increase and leverage access to the City using public transit. Additionally, the emergence of transportation network companies such as Uber and Lyft has heavily influenced and transformed the rideshare industry since 2011, requiring the City to consider new approaches to rideshare from what was originally outlined in the CAP.

### **Next Steps**

In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following key areas for implementation in the immediate term:

- *T-2.1B Install bike lanes and routes, including improved signage and wayfinding, to complete the City's bicycle network.* Since adopting the updated Pedestrian and Bicycle Mobility Plan in



## TRANSPORTATION AND MOBILITY

September 2017, the City plans to implement several of the identified initiatives to enhance bicycle infrastructure throughout the community. Circulation improvements include adding 11 miles of proposed bicycle facilities and intersection improvements for bicycles at 17 intersections. Furthermore, the City is currently updating its Transportation Demand Management (TDM) Program and Ordinance which would require developers and employers to include programmatic and infrastructure elements that encourage the use of transit modes other than single occupancy vehicles. The TDM ordinance update is anticipated to be completed by Summer 2018.

- *T-3.4 [Consult with Metro to] ensure bus stops provide shade, weather protection, seating, lighting, route information and retime information.* In late August 2017 as part of the City's Street Media Project, the City contracted with Outfront/Decaux to modernize the City's street furniture including bus stops, trash cans, benches, and more. Of the City's 51 current bus stops and shelters, 18 will be replaced with redesigned flagship shelters that will provide wayfinding signage and include amenities such as enhanced lighting, USB charging ports, Wi-Fi, digital ad panels, and real time arrival information. An additional 33 shelters and bus stops will be retrofitted to provide amenities and more informative pylons, shade structures, and lighting where possible. Once component designs are approved by City Council, the project should take about one year to complete and should be finished by early 2019.



## ENERGY USE AND EFFICIENCY

Energy-related emissions comprise a substantial portion of West Hollywood’s emissions. These emissions are associated with use of electricity and natural gas to heat, cool, and power residential and commercial buildings. Energy-related GHG emissions are released during the extraction, refining, and combustion of fossil fuels to generate electricity, as well as during the use of natural gas. The built-out nature of the City and the age of its existing building stock makes achieving emission reductions through improvements in energy use and efficiency, such as through energy retrofits, particularly promising.

### Emissions Progress

As shown in the Progress Snapshot, electricity and natural gas emissions have declined substantially since 2008. Electricity-related emissions have decreased primarily in the commercial sector due to increases in energy efficiency, a decrease in the carbon intensity of electricity supplied by Southern California Edison, and changes in consumer behavior (e.g., reduced use of air conditioning). Natural gas-related emissions have decreased due in part to energy efficiency upgrades in both the residential and commercial sectors, behavioral changes related to heating, and a succession of warmer-than-average winters<sup>1</sup>. Future monitoring will allow for a more detailed understanding of natural gas reductions.

The following Progress Snapshot summarizes the change in GHG emissions and electricity and natural gas consumption data between 2008 and 2016. It also shows the overall implementation progress associated with the Energy Use and Efficiency Sector of the 2011 CAP.



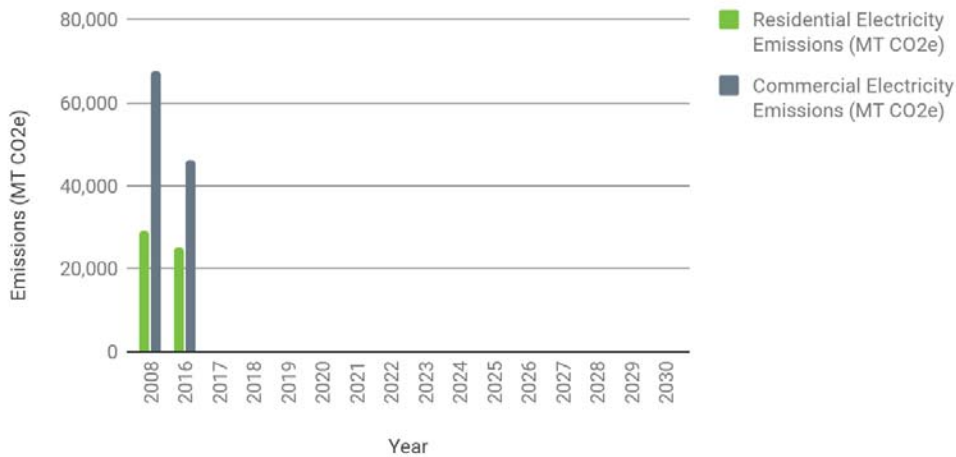
<sup>1</sup> Weather Underground. 2017. Weather History for Los Angeles Downtown. [https://www.wunderground.com/history/airport/KCQT/2016/1/16/MonthlyHistory.html?req\\_city=Los%20Angeles&req\\_state=CA&req\\_statename=California&reqdb.zip=90001&reqdb.magic=1&reqdb.wmo=99999](https://www.wunderground.com/history/airport/KCQT/2016/1/16/MonthlyHistory.html?req_city=Los%20Angeles&req_state=CA&req_statename=California&reqdb.zip=90001&reqdb.magic=1&reqdb.wmo=99999). (Accessed January 2018).



## PROGRESS SNAPSHOT: ENERGY USE & EFFICIENCY SECTOR

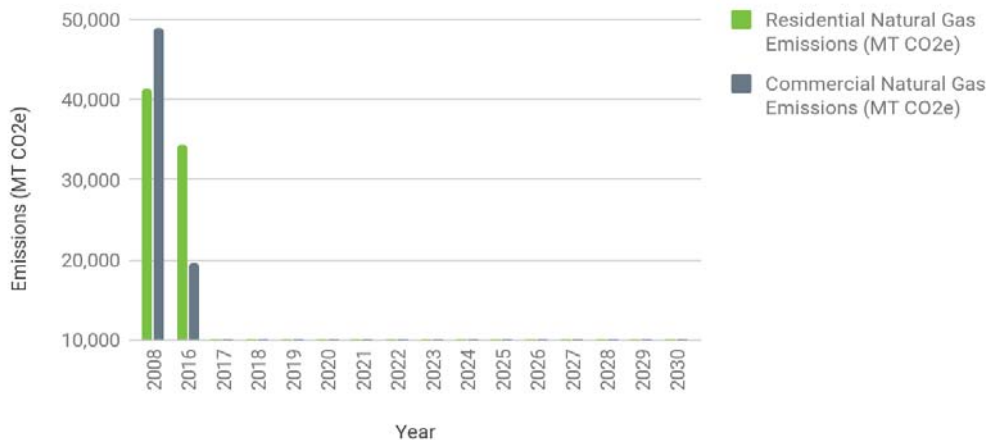
### EMISSIONS STATUS

#### Community Electricity Emissions



**Figure 8. Community Electricity Emissions.** Electricity emissions (MT CO<sub>2</sub>e) are shown for residential (green) and commercial (gray) sources for every year for which data is available. Electricity emissions for 2008 were taken from the 2008 GHG inventory. Emissions for subsequent years were calculated based on electricity consumption data.

#### Community Natural Gas Emissions

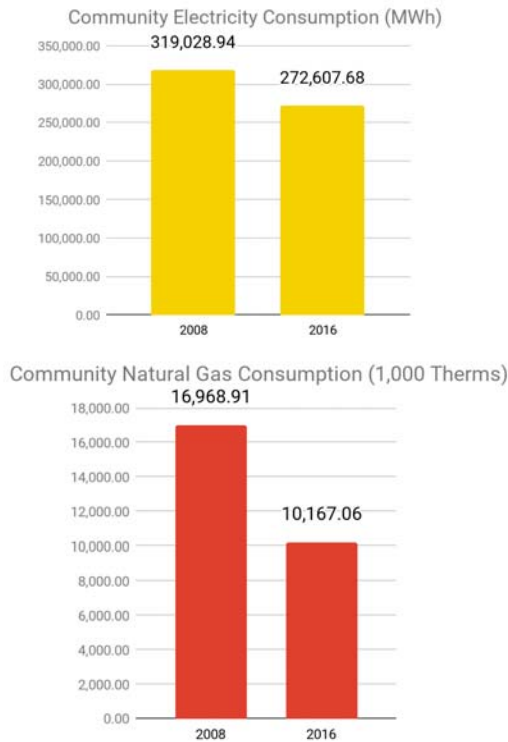


**Figure 9. Community Natural Gas Emissions.** Electricity emissions (MT CO<sub>2</sub>e) are shown for residential (green) and commercial (gray) sources for every year for which data is available. Natural gas emissions for 2008 were taken from the 2008 GHG inventory. Emissions for subsequent years were calculated based on natural gas consumption data.



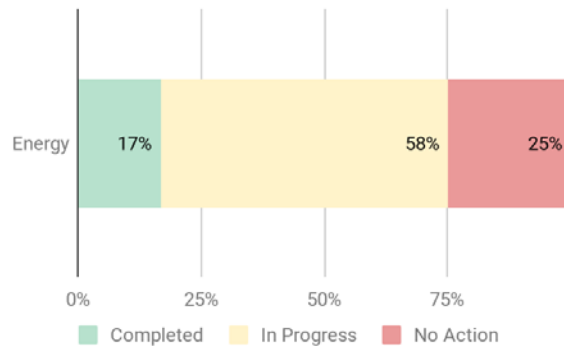
# ENERGY USE AND EFFICIENCY

## ENERGY CONSUMPTION TRENDS



**Figure 10. Community Electricity and Natural Gas Consumption.** Total electricity consumption (kWh) (yellow bar) and total natural gas consumption (therms) (red bar) by West Hollywood residential and commercial uses is shown for years 2008 and 2016. The city has reduced its overall electricity and natural gas consumption by 14.5 and 40.0 percent, respectively, since 2008.

## IMPLEMENTATION PROGRESS



**Figure 11. Energy Sector Implementation Progress.** The bar represents the City's progress on CAP action items related to energy use and efficiency. The City has completed 17% of all action items (green), is currently implementing 58% (yellow), and has taken no action on 25%(red).

## Implementation Progress

### CAP Progress to Date

The 2011 CAP includes measures to reduce energy-related emissions, such as developing incentives for renewable energy installation, adopting conservation and efficiency ordinances, and sub-metering of tenant units to allow for individual monitoring. The eleven measures for this CAP sector are:

- **E-1.1** Develop a comprehensive outreach program to facilitate voluntary residential and commercial building energy efficiency improvements.
- **E-1.2** Develop a comprehensive residential renewable energy program that provides incentives, outreach, financing, and other forms of assistance.
- **E-1.3** Work with Southern California Edison (SCE) to accelerate smart grid integration into the community.
- **E-1.4** Develop and implement a point-of-sale residential energy conservation ordinance (RECO)



## ENERGY USE AND EFFICIENCY

and commercial conservation ordinance (CECO).

- **E-1.5** Develop an energy efficient appliance upgrade program for residents and business owners to promote upgrades from inefficient appliances to new Energy Star appliances.
- **E-2.1** Continue to fund and operate the Green Building Resource Center.
- **E-2.2** Require all new construction to achieve California Building Code Tier II Energy Efficiency Standards.
- **E-3.1** Require that all new construction and condominium conversions be sub-metered to allow each tenant the ability to monitor their own energy and water use.
- **E-3.2** Require the use of recycled materials for 20% of construction materials in all new construction.
- **E-3.3** Facilitate installation of solar hot water heating systems on commercial and multi-family buildings.
- **E-3.4** Facilitate the installation of solar photovoltaic (PV) systems on multi-family residential, commercial, and industrial buildings and parking lots.

As illustrated in the Progress Snapshot, the City has made substantial progress in implementing energy-related action items, having completed or currently implementing 75 percent of all action items. A full list of all measures and actions in this sector can be found in Appendix A.

### Annual Progress (2016-2017)

In the last year, the City has taken key steps to implement CAP measures related to energy. Major measures completed or underway include the following:

- Working with Southern California Edison (SCE) and community organizations to develop energy efficiency outreach programs for homes and businesses (E-1.1)
- Developing and maintaining a web page linking to information about energy efficiency rebates, incentives, and case studies (E-1.1)
- Evaluating and selecting financing programs to fund residential investment in renewable energy (E-1.2)
- Developing a comprehensive outreach program to maximize participation in energy efficiency/renewable energy programs (E-1.2)
- Updating the Green Building Ordinance to require smart grid energy management and compatible heating, ventilation, air conditioning and lighting in new construction (E-1.3)

#### **Key Success!** *Property Assessed Clean Energy (PACE) Programs (E-1.2)*

The City offers four PACE programs to help home and business owners finance property improvements that will increase energy efficiency and water conservation, support renewable energy, and enhance seismic safety. The program provides funds to pay for 100 percent of project costs up front, which the owner pays back over a long period of time (usually up to 20 years).





## ENERGY USE AND EFFICIENCY

### Key Success! *Go Solar West Hollywood (E-3.4)*



The City has partnered with EnergySage and EcoMotion to launch a technical assistance program to make it easier for property owners to go solar. EnergySage serves as a solar matchmaker by connecting property owners to a network of pre-screened solar installers and provides easy-to-understand quotes so that owners can quickly compare and select their installer. Furthermore, a consultant is on-call to guide property owners through more complex multifamily and commercial projects. Outreach for Go Solar West Hollywood included the promotion of utility rebate programs to the West Hollywood community.

### Added Initiatives and Action Items

The City has taken action on initiatives not originally included in the 2011 CAP that will contribute to reductions in energy-related emissions. The following initiatives were launched after the 2011 CAP was adopted and will continue to be monitored in future Annual Progress Reports:

- **Expedited Solar Permitting.** The City streamlined its permitting process for small solar installations to make it easier for the community to produce more solar energy.
- **Clean Power Alliance (CPA).** In September 2017, the City joined several other cities and the counties of Los Angeles and Ventura in a community choice aggregation (CCA) program, with the goal of providing options for up to 100% renewable energy to West Hollywood residents, businesses, and city facilities.

### Items with No Action

Six items (25%) in the Energy Use & Efficiency Sector have had no action. All of these items involve either working with Southern California Edison to accelerate smart grid integration into the community (E-1.3) or developing and implementing a point-of-sale residential and commercial energy conservation ordinance (E-1.4). City staff have been monitoring the deployment of SCE's smart grid technology as the utility makes strides to replace traditional meters throughout the region. The City will consider the integration of smart grid technologies as part of the West Hollywood Green Building Program Update and as new programs develop under the Clean Power Alliance. Additionally, with the onset of various energy efficiency programs and rebates for existing properties in recent years, the City has prioritized efforts to promote these incentive programs and resources to the community and may consider the implementation of a point-of-sale conservation ordinance at a later time.

### Next Steps

In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following



## ENERGY USE AND EFFICIENCY

key areas for implementation in the immediate term:

- *E2.2 Require all new construction to achieve CBC Tier II Energy Efficient Standards.* The City began its process to update of its flagship green building program in February 2018. As part of this update, the City will explore if the State of California’s 2016 CALGreen building standards baseline code can provide an acceptable level of green building or if additional requirements are needed. The City will consider if adopting a CALGreen Tier II reach code is appropriate or if the use of an external green building standard, such as LEED, Green Point Rated, or the Living Building Challenge, is a more appropriate fit for the community. This project will also consider a variety of possible mandatory measures for new construction including green roofs and net zero energy. The City anticipates this project being completed by the end of 2018.



## WASTE REDUCTION AND RECYCLING

Waste-related GHG emissions are the result from product disposal and pre-consumer commercial and industrial processes, such as the release of methane from organic waste decomposition, and the loss of carbon sinks due to the consumption of raw organic materials. Most waste reduction practices focus on diverting waste products from landfills through recycling strategies. However, reducing overall waste generation by using less and promoting reuse also provides an opportunity to reduce waste-related emissions. Policies encouraging the purchase of climate-friendly, durable products with minimal packaging can reduce both waste generation and GHG emissions.

### Emissions Progress

As shown in the Progress Snapshot, waste emissions appear to have increased by less than 1,000 MT CO<sub>2</sub>e since 2008. However, per-capita waste generation has decreased substantially over the same time period from 5.0 to 3.3 pounds per day (lbs/day), suggesting the increase in emissions may be in part due to a change in the methodology used for calculating emissions. The City has exceeded its goal of reducing waste generation to 4 pounds per person per day (ppd) established in the 2011 CAP. This reduction in waste generation has been driven by the City's restaurant green waste composting program and State mandates to increase the City's diversion rate.



The following Progress Snapshot summarizes the change in GHG emissions and waste generation data between 2008 and 2016. It also shows the overall implementation progress associated with the Waste Reduction & Recycling Sector of the 2011 CAP.

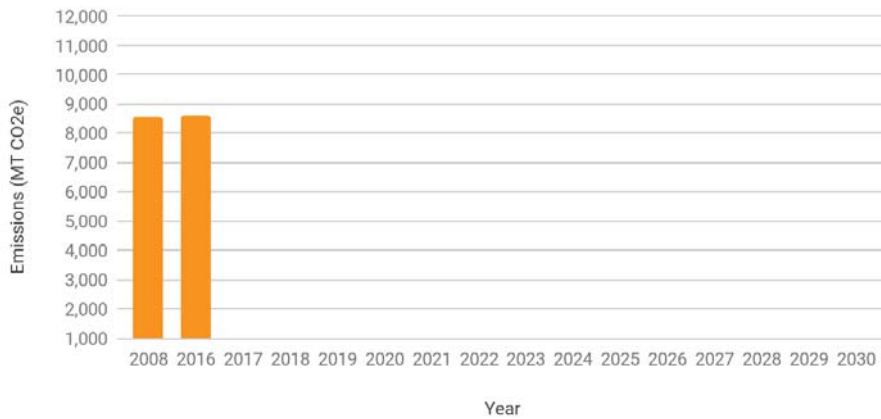


# WASTE REDUCTION AND RECYCLING

## PROGRESS SNAPSHOT: WASTE REDUCTION & RECYCLING SECTOR

### EMISSIONS

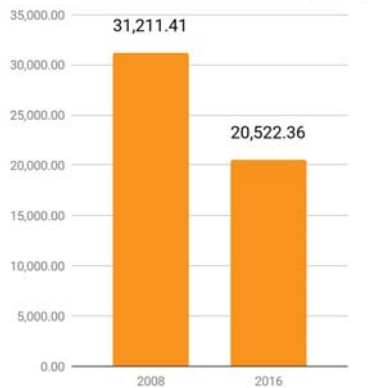
Community Waste Emissions



**Figure 12. Community Waste Emissions.** Community waste emissions (MT CO<sub>2</sub>e) are shown in orange for every year for which data is available. Waste emissions for 2008 were taken from the 2008 inventory. Emissions for subsequent years were calculated based on waste disposal data. It should be noted that waste generation decreased from 5.0 to 3.3 lbs per person per day from 2008 to 2016. However, the emission factor was updated in 2016 to reflect the best available science, which resulted in an increase in estimated emissions.

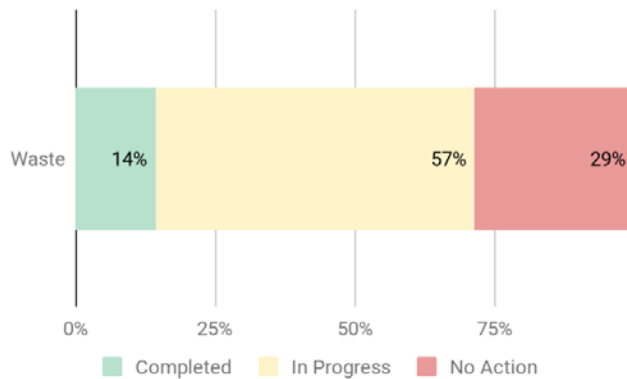
### WASTE GENERATION ACTIVITY

Community Waste Generation (Tons)



**Figure 13. Waste Generation.** Total waste disposed (tons) by West Hollywood residential and commercial uses are shown for years 2008 and 2016. The city has reduced its overall waste generation by 34.2 percent since 2008.

### IMPLEMENTATION PROGRESS



**Figure 14. Waste Reduction & Recycling Sector Implementation Progress.** The bar represents the City's progress on CAP action items related to waste. The City has completed 14% of all action items (green), is currently implementing 57% (yellow), and has taken no action on 29% (red).



## WASTE REDUCTION AND RECYCLING

### Implementation Progress

#### CAP Progress to Date

The 2011 CAP includes measures to reduce waste emissions, such as establishing a per capita waste reduction target and encouraging the use of reusable and biodegradable materials in retail and commercial establishments. The three measures for this CAP sector are:

- **SW-1.1** Establish a waste reduction target not to exceed 4.0 pounds per person per day.
- **SW-1.2** Work with LA County cities and other organizations to urge adoption of state and federal legislation that requires extended producer responsibility and improves the recyclability of products and packaging.
- **SW-1.3** Encourage the use of reusable and biodegradable materials in retail and commercial establishments.

As illustrated in the Progress Snapshot, the City has made substantial progress in implementing waste-related action items, having completed or currently implementing 71 percent of all action items. A full list of all measures and actions in this sector can be found in Appendix A.

#### Annual Progress (2016-2017)

In the last year, the City has taken key steps to implement CAP measures related to waste.

##### **Key Success!** *Outreach partnership with Athens Services (SW-1.1)*

The City's contracted waste hauler, Athens Services, provides outreach material promoting reduced waste generation and recycling as bill inserts each quarter. Athens Services also provides updates to the Chamber of Commerce bi-annually, performs two community events per year, and hosts one seminar and workshop each year on waste and recycling programs.

##### **Key Success!** *Waste Reduction Target (SW-1.1)*

The 2008 Climate Action Plan set a target to reduce the waste generation rate to 4.0 pounds per person per day (ppd) in West Hollywood for residences and businesses in the City. As Figure 15 illustrates, the waste generation rate citywide in 2016 was 3.3 pounds per person per day, down from 5.0 lbs per person per day in 2008.



## WASTE REDUCTION AND RECYCLING

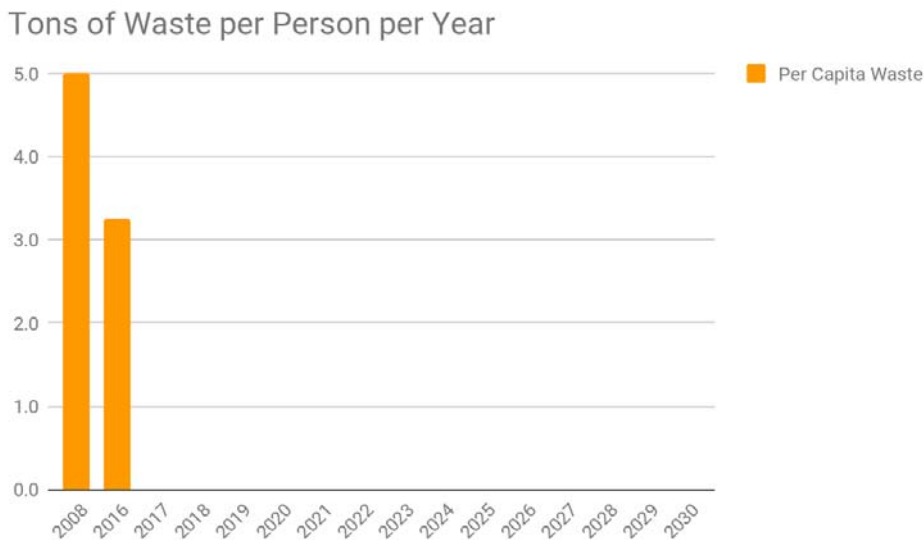


Figure 15. Tons of Waste per Person per Year. This figure illustrates the per capita waste saved in 2008 and 2016.

### Added Initiatives and Action Items

The City has taken action on initiatives not originally included in the 2011 CAP that will contribute to reductions in waste emissions. The following initiatives were launched after the 2011 CAP was adopted and will continue to be monitored in future Annual Progress Reports:

- **Construction & Demolition Solid Waste and Recycling Plan.** The City requires that developers create a solid waste and recycling plan to mitigate the environmental impacts of development activities within the City.
- **Commercial Food Waste Recycling Program.** The City partners with Athens Services to implement a commercial food waste recycling program that helps businesses divert organic waste from landfill and into compost.

### Items with No Action

Two items (29%) in the Waste Reduction and Recycling Sector have had no action. These items involve working with Los Angeles County cities and other organizations to advocate for the improved recyclability of products and packaging by manufacturers (SW-1.2). In the past few years, the City has focused on the creation and implementation of local waste reduction and recycling programs with Athens Services that respond to the unique needs of the community. The City may consider advocacy for extended producer responsibility at a later time.



## WASTE REDUCTION AND RECYCLING

### Next Steps

In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following key areas for implementation in the immediate term:

- *SW1.3 Create an enforcement ban to increase compliance with the City's existing polystyrene ban.* The City is exploring potential enforcement measures for the polystyrene ban through a multi-department collaborative lens.





## GREEN SPACE

Green space refers to vegetated areas within an urban environment that provide valuable recreation and health services to the community. In West Hollywood, green space includes urban forest, parks, landscaped medians and parkways, and natural landscapes. In addition to public health benefits, green space counteracts the urban heat island effect, which reduces the need for energy-powered cooling, and also provides areas for stormwater infiltration. The measures contained within this strategy describe actions to fund and incentivize the creation of green space, as well as encourage expansion of green space into new frontiers, such as commercial building rooftops.

The City also recognizes trees as a valuable asset. Trees beautify neighborhoods, increase property values, reduce noise and air pollution, keep buildings cool in the summer, create privacy, and establish habitat for wildlife. Importantly, the urban forest also captures and stores carbon as the trees grow. Measures in this section seek to enhance West Hollywood's already well established urban forest.

### Emissions Progress

As shown in the Progress Snapshot, the City has reduced community emissions by 148 MT CO<sub>2</sub>e since 2008 through the planting of new trees. The City planted 466 new trees, just 34 trees away from the 2020 goal of 500 trees.



The following Progress Snapshot summarizes the change in GHG emissions and tree planting data between 2008 and 2016. It also shows the overall implementation progress associated with the Green Space Sector of the 2011 CAP.

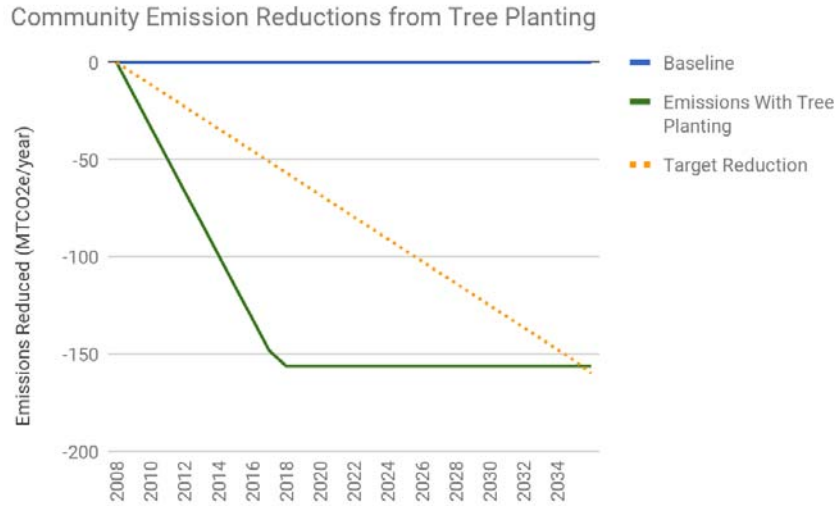




# GREEN SPACE

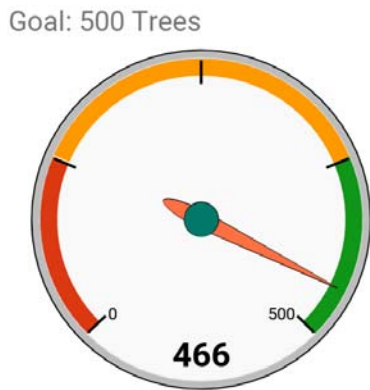
## PROGRESS SNAPSHOT: GREEN SPACE SECTOR

### EMISSIONS



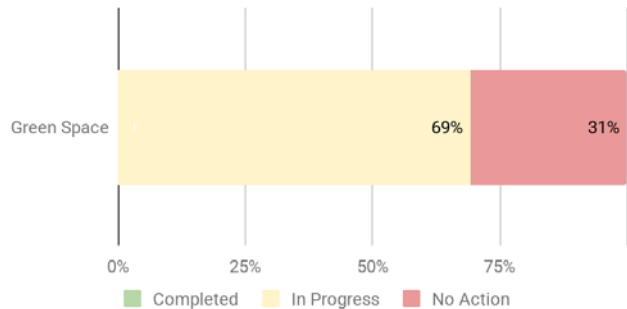
**Figure 16. Community Emission Reductions from Tree Planting.** Emissions (MT CO<sub>2</sub>e) saved through the planting of new trees are shown in green for every year for which data is available. Because trees continue to sequester carbon over time, the GHG reduction benefits can be seen even in future years, which is the reason for the continued trend line. Annual emissions were calculated based on the number of trees planted and an emission factor estimating the amount of carbon sequestered per tree. As the city updates its tree planting numbers annually, this trend line will adjust as well.

### NO. OF TREES PLANTED (2008-2016)



**Figure 17. Trees Planted.** Total trees planted by West Hollywood since 2008 is shown relative to the City's target of 500 trees.

### IMPLEMENTATION PROGRESS



**Figure 18. Greenspace Sector Implementation Progress.** The bar represents the City's progress on CAP action items related to green space. The City has completed 0% of all items (green), is currently implementing 69% (yellow), and has taken no action on 31% (red).



### Implementation Progress

#### CAP Progress to Date

The 2011 CAP includes measures to reduce community emissions through the development of green space, such as establishing a green roof and roof garden program and enhance the City's urban forest. The three measures for this CAP sector are:

- **G-1.1** Increase and enhance the City's urban forest to capture and store carbon and reduce building energy consumption.
- **G-1.2** Establish a green roof and roof garden program to standardize, promote, and incentivize green roofs and roof gardens throughout the City.
- **G-1.3** Establish an innovative program to increase green space throughout the City.

As illustrated in the Progress Snapshot, the City has made moderate progress in implementing green space-related action items, having completed or currently implementing 69 percent of all action items. A full list of all measures and actions in this sector can be found in Appendix A.

#### Annual Progress (2016-2017)

In the last year, the City has taken key steps to implement CAP measures related to green space. Major measures completed or underway include the following:

- Staff is working to complete the Urban Forest Management Plan with adoption anticipated for Summer 2018 (G-1.1)
- The City is implementing strategies from the Design District Streetscape Master Plan, which identifies new public spaces in the City (G-1.3). Construction on Melrose expected to begin in 2019.

#### **Key Success!** *Design District Streetscape Master Plan (G-1.3)*

The West Hollywood Design District Streetscape Master Plan provides guidelines for streetscape improvements in the City's Design District. The Design District extends north of Beverly Boulevard, west of La Cienega Boulevard, south of Santa Monica Boulevard, and west of Doheny Drive. The Master Plan provides for more street trees and median landscaping along some of the City's most iconic streets, including Melrose Avenue, Robertson Boulevard, and Beverly Boulevard. The City is currently moving forward with the engineering for this streetscape and has construction funds in place.

#### Added Initiatives and Action Items

The City has taken action on initiatives not originally included in the 2011 CAP that will contribute to further emission reductions in the water and wastewater sector. The following initiatives were launched after the 2011 CAP was adopted and will continue to be monitored in future Annual Progress Reports:



## GREEN SPACE

- **West Hollywood Park Master Plan.** Phase II of implementation of the City's West Hollywood Park Master Plan began in January 2017 and is expected to be completed over three years by mid-2020. This renovation will add a net 3.37 acres of uninterrupted green space, including playgrounds and tree-lined promenades to the park.
- **Parklet Program.** On January 16, 2018, the West Hollywood City Council approved the citywide Parklet Program. Parklets are extensions of the sidewalk, repurposing on-street parking spaces for the creation of new, publicly accessible open space. Parklets can incorporate elements of seating, greenery and bike racks and accommodate unmet demand for public space on neighborhood retail streets or commercial areas. The program launched in early 2018 with a Request for Parklet Proposals. The City will select up to seven proposals to move forward with the design, permitting and construction of the parklet. The City anticipates the installation of the first parklet by fall of 2018.

### Items with No Action

Five items (38%) in the Green Space Sector have had no action. The majority of these items involve establishing an innovative program to increase green space throughout the City (G-1.3). While half of the actions listed under this CAP measure are in progress, the remaining actions have been challenging to implement due to limitations in land availability for additional vegetated spaces. However, creative solutions such as the parklet program, a public benefits policy for new development, and the redesign of West Hollywood Park are new and effective strategies to increase green space in the City and achieve similar outcomes to those identified in CAP in 2011.

### Next Steps

In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following key areas for implementation in the immediate term:

- *G1.2 Establish a green roof and roof garden program to standardize, promote, and incentivize green roofs and roof gardens throughout the city.* Beginning in early 2018, the City will update its flagship green building program. As part of this update, the City will explore several options for mandatory green roofs for newly constructed buildings.
- *G1.3 Update the Residential Parkways Guidelines.* City Council has directed staff to reevaluate the City's existing Residential Parkways Guidelines in 2018. The updated guidelines will help to ensure parkways reduce water use, offset carbon emissions and provide benefits such as stormwater infiltration, soil volume for street trees, erosion and dust control, and aesthetic beauty.



## WATER USE AND EFFICIENCY

Water-related GHG emissions are mainly associated with energy used to pump, transport, heat, cool, and treat water and wastewater. In a dry Mediterranean climate, water demand and resulting emissions are magnified due to a relative shortage of naturally occurring water sources. Thus, water conservation strategies have multiple benefits such as reducing energy demand, managing a limited resource, and creating water supply reliability during times of severe drought. The City has been working with water purveyors (the City of Beverly Hills and Los Angeles Department of Water and Power) to identify community actions that can reduce potable water demand, minimize wastewater generation, explore sustainable alternative sources of water, manage stormwater runoff, and help maintain a healthy balance in the local aquatic ecosystem.

### Emissions Progress

As shown in the Progress Snapshot, the City has substantially reduced its water and wastewater emissions since 2008, primarily due to adoption of efficiency measures undertaken by the community as well as the use of cleaner energy in water delivery and treatment systems. The original 2008 inventory did not derive emission calculations from water use data, so the observed change in emissions may partly be the result of a difference in calculation methodologies.



The following Progress Snapshot summarizes the change in GHG emissions, water use trends, and overall implementation progress associated with the Water Use and Efficiency Sector of the 2011 CAP.

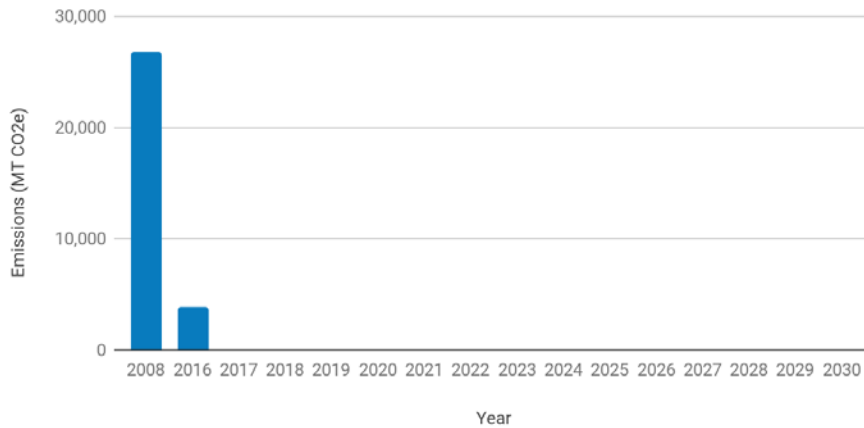


# WATER USE AND EFFICIENCY

## PROGRESS SNAPSHOT: WATER USE & EFFICIENCY SECTOR

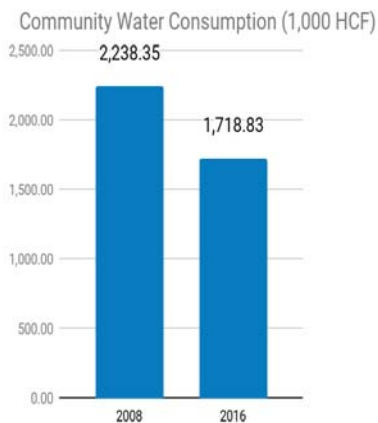
### EMISSIONS

Community Water and Wastewater Emissions



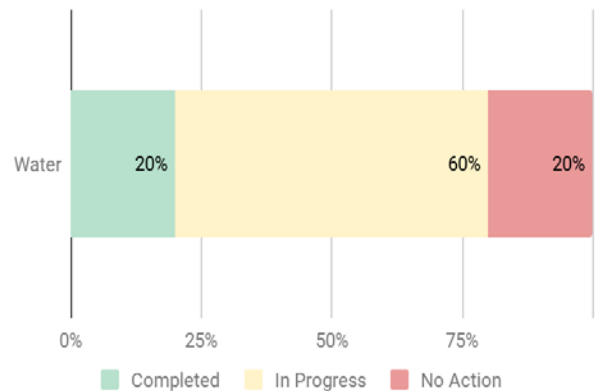
**Figure 19. Community Water and Wastewater Emissions.** Community water and wastewater emissions (MT CO<sub>2</sub>e) are shown in blue for every year for which data is available. Water and wastewater emissions for 2008 were taken from the 2008 GHG inventory. Emissions for subsequent years were calculated based on water consumption data from the utility as well as an emission factor that estimates emissions per volume of water.

### WATER CONSUMPTION TRENDS



**Figure 20. Water Consumption.** Total water consumed in hundreds of cubic feet (HCF) by West Hollywood residential and commercial uses is shown for years 2008 and 2016. The city has reduced its overall water consumption by 23.2 percent since 2008.

### IMPLEMENTATION PROGRESS



**Figure 21. Water Use & Efficiency Sector Implementation Progress.** The bar represents the City’s progress on CAP action items related to water use and efficiency. The City has completed 20% of all action items (green), is currently implementing 60% (yellow), and has taken no action on 20% (red).



## Implementation Progress

### CAP Progress to Date

The 2011 CAP includes measures to reduce community emissions related to water and wastewater, such as working with utility companies to improve water conservation and increasing enforcement of the Water Conservation Plan and Green Building Ordinance. There are two measures in this CAP Sector:

- W-1.1 Reduce per capita water consumption by 35% by 2025.
- W-1.2 Encourage all automated irrigation systems installed to include a weather-based control system.

As illustrated in the Progress Snapshot, the City has made substantial progress in implementing water-related action items, having completed or currently implementing 80 percent of all action items. A full list of all measures and actions in this sector can be found in Appendix A.

### Annual Progress (2016-2017)

In the last year, the City has taken key steps to implement CAP measures related to water and wastewater. Major measures completed or underway include the following:

- Updated the climate-appropriate native plant list and continue to encourage residents and businesses to use low-water and low-maintenance plant materials (W-1.1)
- Working with water utilities to promote evapotranspiration systems and publicize existing water provider rebate programs (W-1.2)

#### **Key Success!** *Municipal Water Conservation (W-1.1 and 1.2)*

The City has taken a number of ongoing measures to reduce water-use associated with City property. For example, all newly installed indoor devices are low flow, while in outdoor landscapes, spray irrigation systems are being converted to drip systems and existing plants are being replaced with drought tolerant species. The City is installing Calsense weather-based irrigation controllers along sections of Santa Monica Boulevard. These actions along with many others from the community have helped reduce overall water consumption significantly from 2008 to 2016, as can be seen in the Progress Snapshot.

#### **Key Success!** *Santa Monica Boulevard Ocean-Friendly Demonstration Garden (W-1.2 and CL-1.3)*

In March 2017, the City in conjunction with West Basin Municipal Water District completed an ocean-friendly drought tolerant demonstration garden in the median of Santa Monica Blvd. The 14,685 square-foot garden was designed using xeriscaping principles and efficient irrigation systems.



### Added Initiatives and Action Items

The City has taken action on initiatives not originally included in the 2011 CAP that will contribute to further emission reductions in the water and wastewater sector. The following initiative was launched after the 2011 CAP was adopted and will continue to be monitored in future Annual Progress Reports:

- **California-Friendly Landscape Classes.** The City partnered with West Basin Municipal Water District to offer free California-Friendly Landscaping trainings to residents. These classes emphasized climate appropriate plant selection, efficient irrigation methods, and xeriscaping. The City also hosted a rain barrel giveaway to promote the use of nonpotable alternative sources of water for irrigation.

### Items with No Action

One item (20%) in the Water Use & Efficiency Sector have had no action. These items involve reducing per capita water consumption by 35 percent by 2025 (W-1.1) through increasing enforcement through fines, water abuse hotlines, and code enforcement personnel. While the City is trending well in reducing its overall water consumption (23.2 percent overall since 2008), this action item is difficult for the City to implement due to the lack of control over the administration of water use enforcement procedures. Appropriately, the City has directed its attention to partnering with its water utilities on water conservation outreach, promoting rebate and audit programs for residents and businesses, and placing restrictions on landscape watering during drought conditions.

### Next Steps

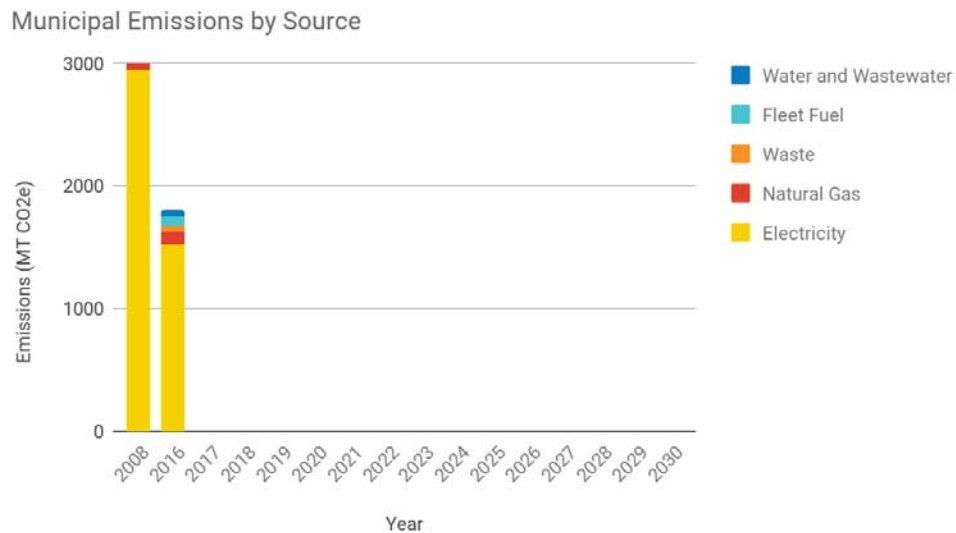
In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following key areas for implementation in the immediate term:

- *W1.1 Reduce per capita water consumption by 30% by 2035.* Beginning in early 2018, the City will explore several water conservation strategies, including water neutrality for new development, best practices for water-efficient landscaping, and increasing educational outreach on water conservation, reuse, and on-site stormwater management.



## SECTION II. MUNICIPAL EMISSIONS

Municipal (government-related) GHG emissions are a subset of community emissions and include emissions from energy use in government buildings, vehicle fleets, solid waste, streetlights, and other government-owned/operated facilities. Figure 23 shows the makeup of municipal GHG emissions for the reporting year. The largest source of municipal emissions is electricity consumption, followed by natural gas, transportation, waste, and water and wastewater.



**Figure 22. Municipal Emissions by Source.** Each bar in this graph depicts annual municipal GHG emissions (MT CO<sub>2</sub>e) broken down by source: water and wastewater (dark blue), transportation (aqua), waste (orange), natural gas (red), and electricity (gold). Emissions were calculated using activity data for each sector; see Appendix A for calculation methodologies.

Table 2 provides a summary of changes in municipal emissions, broken down by emission source. The 2008 inventory calculated emissions from municipal natural gas and electricity usage, so baseline data for waste, transportation, and waste and wastewater are not provided. The 2016 inventory expanded covered sources to include water and wastewater, waste, and fleet fuel usage to allow the City to better track overall emissions and find new opportunities for reductions.

Emission Source	2008	2016	Change From 2008
Water and Wastewater (MT CO <sub>2</sub> e)	No Data	46.5	N/A
Fleet Fuel (MT CO <sub>2</sub> e)	No Data	78.4	N/A
Waste (MT CO <sub>2</sub> e)	No Data	54.6	100.00
Natural Gas (MT CO <sub>2</sub> e)	52	98.8	46.81
Electricity (MT CO <sub>2</sub> e)	2950	1,520.6	-1,429.44

**Table 2. Changes in Municipal Emissions by Source.** Baseline (2008) and reporting year (2016) emissions (MT CO<sub>2</sub>e) are shown for water and wastewater, transportation, waste, natural gas, and electricity sources, as well as the total change in emissions from the baseline to reporting year.





## COMMUNITY ENGAGEMENT AND LEADERSHIP

Community engagement and effective participation are key to the successful implementation of the CAP. The Community Leadership and Engagement sector includes measures that direct the City to conduct outreach programs to involve residents and businesses in various GHG reducing activities, assessments, and actions. Measures under this sector also direct the City to reduce its municipal emissions to serve as an example to the community and take responsibility for its share of community-wide emissions.

### Emissions Progress

The 2008 and 2016 GHG inventories quantified municipal emissions from electricity and natural gas. As shown in the Progress Snapshot, the City substantially decreased its electricity emissions, which contributed to an overall decrease in total municipal emissions since 2008. The decrease in electricity emissions is primarily due to the adoption of efficiency measures and installation of renewable energy sources. Natural gas emissions slightly rose in 2016 likely due to colder weather during this time period.

In addition to energy-related emissions, the 2016 inventory quantified municipal waste, water and wastewater, and vehicle fleet emissions. These emissions will continue to be tracked and monitored in subsequent reports.



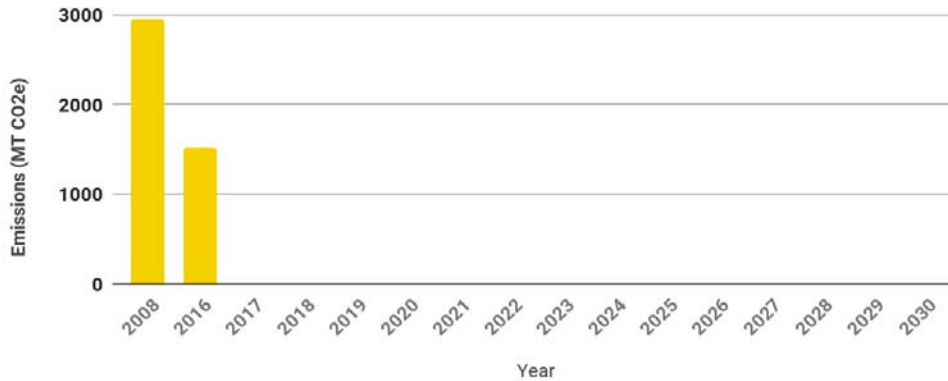
The following Progress Snapshot summarizes the change in GHG emissions and overall implementation progress associated with the Community Leadership and Engagement Sector of the 2011 CAP. Graphs displaying only the 2016 emissions reflect municipal sectors not originally tracked in the 2011 CAP.



## PROGRESS SNAPSHOT: COMMUNITY LEADERSHIP AND ENGAGEMENT SECTOR

### EMISSIONS

Municipal Electricity Emissions



**Figure 23. Municipal Electricity Emissions.** Municipal electricity emissions (MT CO<sub>2</sub>e) are shown in yellow for every year for which data is available. Sector emissions for 2008 were taken from the 2008 GHG Inventory. Emissions for subsequent years were calculated based on electricity consumption data.

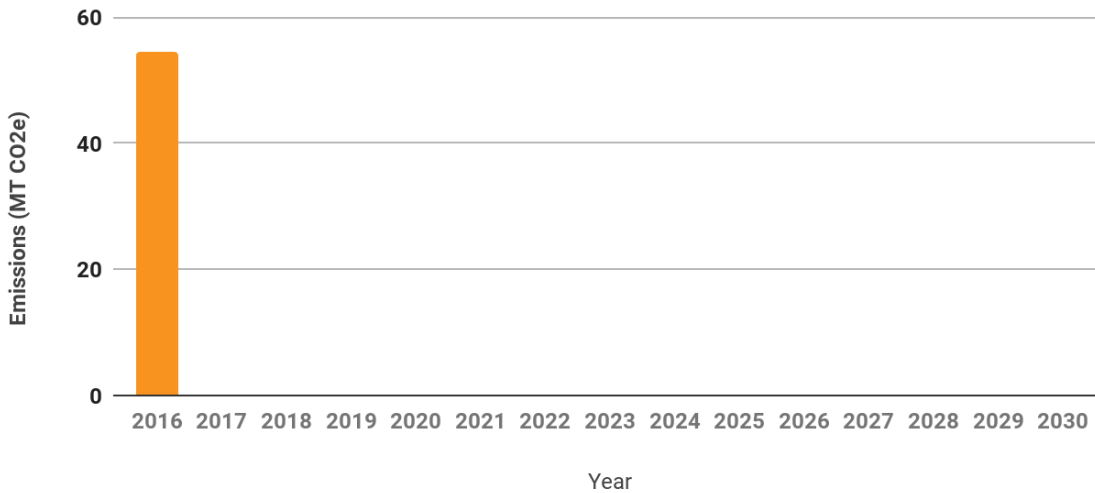
Municipal Natural Gas Emissions



**Figure 24. Municipal Natural Gas Emissions.** Municipal natural gas emissions (MT CO<sub>2</sub>e) are shown in red for every year for which data is available. Sector emissions for 2008 were taken from the 2008 GHG inventory. Emissions for subsequent years were calculated based on natural gas consumption data.

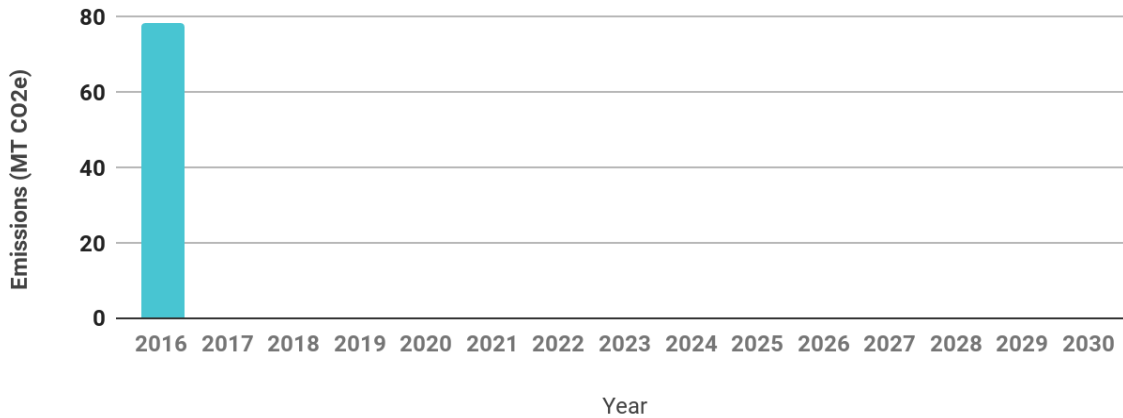


## Municipal Waste Emissions



**Figure 25. Municipal Waste Emissions.** Municipal waste emissions (MT CO<sub>2</sub>e) are shown in orange for every year for which data is available. Emissions were calculated based on waste disposal data. Municipal waste disposal was not tracked prior to the 2016 inventory.

## Municipal Fleet Vehicle Emissions

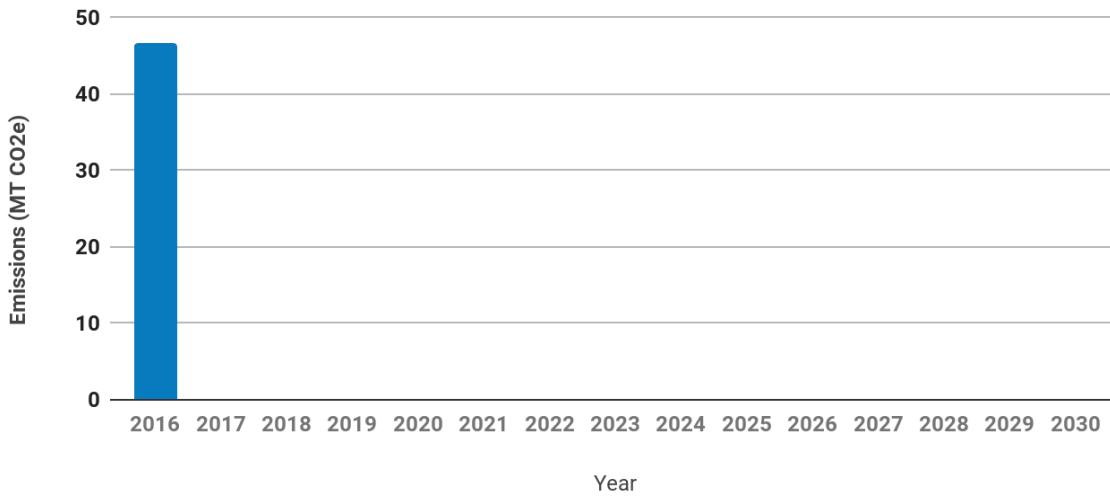


**Figure 26. Municipal Fleet Vehicle Emissions.** Emissions (MT CO<sub>2</sub>e) from municipal fleet vehicles are shown in teal for every year for which data is available. Emissions were calculated based on gasoline consumption data. Municipal gasoline consumption was not tracked prior to the 2016 inventory.



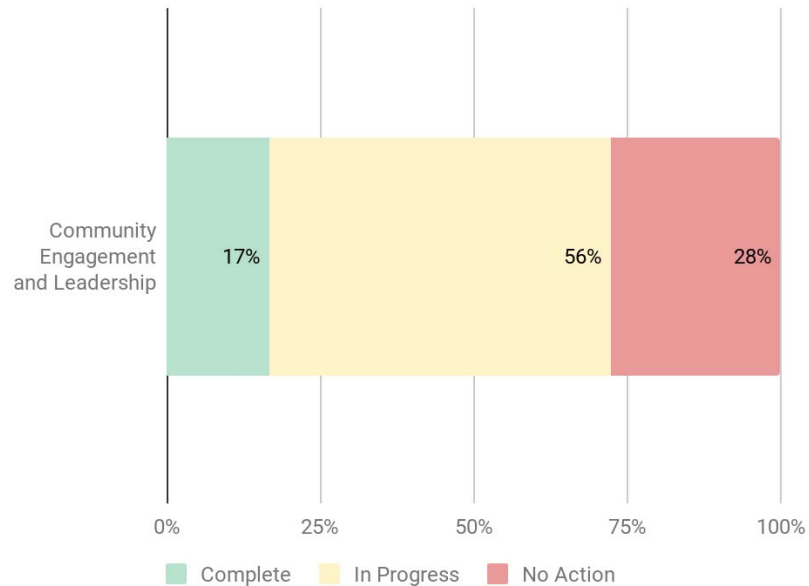
## COMMUNITY ENGAGEMENT AND LEADERSHIP

Municipal Water and Wastewater Emissions



**Figure 27. Municipal Water and Wastewater Emissions.** Emissions (MT CO<sub>2</sub>e) from municipal water use are shown in blue for every year for which data is available. Emissions were calculated based on water consumption data. Municipal water consumption was not tracked prior to the 2016 inventory.

### IMPLEMENTATION PROGRESS



**Figure 28. Community Leadership & Engagement Sector Implementation Progress.** The bar represents the City's progress on CAP action items related to Community Leadership and Engagement. The City has completed 17% of all action items (green), is currently implementing 55% (yellow), and has taken no action on 28% (red).



### Implementation Progress

#### Municipal Progress to Date

The 2011 CAP includes measures to reduce municipal emissions, such as reducing energy and water use in City facilities and reducing single-passenger vehicle commuting by City employees. There are four measures in this CAP Sector:

- **CL-1.1** Create a position for a City Sustainability Manager/Coordinator and support staff to oversee implementation of the Climate Action Plan and sustainability programs.
- **CL-1.2** Reduce energy use in City facilities and operations.
- **CL-1.3** Reduce water use in City facilities and operations.
- **CL-1.4** Reduce single-occupancy vehicle commuting by City employees.

As illustrated in the Progress Snapshot, the City has made substantial progress in implementing municipal action items, having completed or currently implementing 71 percent of all action items. A full list of all measures and actions in this sector can be found in Appendix A.

#### Annual Progress (2016-2017)

In the last year, the City has taken key steps to implement CAP measures related to community leadership and engagement. Major measures completed or underway include the following:

- Hired dedicated personnel to lead and implement the City's sustainability efforts (CL-1.1)
- Actively collaborating with The Energy Coalition to begin audits and retrofits of the City's parking garages in order to decrease energy demand and operational costs (CL-1.2)
- Joining the Clean Power Alliance (CPA), which will provide cleaner sources of energy to West Hollywood and decrease municipal and community-wide emissions (CL-1.2)
- Working with Southern California Edison to convert all street, sidewalk, and park lighting to energy efficient technologies (CL-1.2)
- Transitioning to a centralized irrigation control system that monitors live weather and evapotranspiration for City landscapes (CL-1.3)

#### **Key Success! Municipal Solar Installations (CL-1.2)**

A major success for the City has been a 48 percent decrease in emissions associated with municipal electricity usage. The significant reduction in electricity-related GHG emissions is due to both increased efficiency achieved through projects such as lighting retrofits, as well as an increase in renewably-sourced energy in the Southern California Edison energy portfolio. The City has also installed a total of 135 kW of solar photovoltaics on municipally owned buildings. These panels save about 55 MT of CO<sub>2</sub>e per year.



## COMMUNITY ENGAGEMENT AND LEADERSHIP

### **Key Success!** *Santa Monica Boulevard Ocean-Friendly Demonstration Garden (CL-1.3 and W-1.2)*

In March 2017, the City in conjunction with West Basin Municipal Water District completed an ocean-friendly drought tolerant demonstration garden in the median of Santa Monica Blvd. The 14,685 SF garden was designed using xeriscaping principles and efficient irrigation systems.

### **Added Initiatives and Action Items**

While the majority of municipal emissions are related to energy use, municipal waste, water and wastewater, and vehicle fleets also generate emissions. These emission sources are not explicitly addressed through measures or action items included in the 2011 CAP.

In addition, the following initiatives were launched after the 2011 CAP was adopted to address municipal emission sources not covered at that time and will continue to be monitored in future Annual Progress Reports:

- **Public Electric Vehicle (EV) Charging Stations.** The City has installed eight (8) publicly accessible EV charging stations in municipal parking garages and lots throughout the City. The City plans to install several more public charging stations as well as require EV readiness in new construction and major remodels.
- **Clean Power Alliance (CPA).** In September 2017, the City joined several other cities and the counties of Los Angeles and Ventura in a community choice aggregation (CCA) program, with the goal of providing options for up to 100% renewable energy for City Hall and the community.

### **Items with No Action**

Five items (28%) in the Community Engagement and Leadership Sector have had no action. The majority of these items involve either reducing energy use in City facilities and operations (CL-1.2) or reducing single-occupancy vehicle commuting by City employees (CL-1.4). The City has not yet installed electronic building performance displays in its public facilities, but it is currently exploring the use of building management systems to better track the energy performance of its facilities over time. Additionally, rather than advocating for a greater shift towards renewable energy by Southern California Edison, the City will have more options over the percentage of clean energy used to power public facilities, homes, and businesses as part of the Clean Power Alliance. Lastly, while the City does provide attractive incentives for alternative transportation modes for commuting to work, specific actions such as eliminating free employee parking passes and promoting small-scale employee car-sharing programs have been more difficult to pursue and implement.

### **Next Steps**

In addition to advancing with CAP measures at-large for this sector, City staff will focus on the following key areas for implementation in the immediate term:



## COMMUNITY ENGAGEMENT AND LEADERSHIP

- *CL-1.2C Purchase remaining energy from renewable sources.* West Hollywood joined the Clean Power Alliance in September 2017, with the goal of providing options for up to 100% renewable energy to the West Hollywood community. The City will begin to fully transition municipal and community accounts into this program by early 2019.

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## LESSONS LEARNED

The actions taken since adopting the CAP in 2011 have provided lessons in best practices and ways to improve when designing, planning, implementing, and tracking CAP initiatives in the future. These lessons include:

### **More Consistent Data Monitoring**

Consistent and timely tracking of data is critical and important for any Climate Action Plan. Only by following changes to emissions on an annual basis can the City gain a better understanding of the measures that are most effective in reducing GHG emissions and other measures that may not have the desired emissions reduction impacts.

While the City is making great progress on its CAP implementation, it can improve on the consistency with which it tracks and reports progress as well as quality control for the data it collects. Moving forward, each annual progress report will now follow this same format and be accompanied by a condensed annual report card or infographic. The new monitoring and reporting tool has standardized the data collected by the City through a series of online forms, which will increase the uniformity of data presented year after year.

### **More Verifiable Indicators of Progress**

Developing measures that are actionable and trackable is essential for an effective CAP. Unfortunately, many of the action items in the CAP do not have corresponding data readily available. For example, it is very difficult to track the number of Energy Star appliances that have replaced inefficient older models throughout the City--a metric required by one of the Energy Use and Efficiency measures (E-1.5). By identifying more quantifiable implementation measures and putting more emphasis on showing progress through annual monitoring on emissions reduction, the City can be more efficient and strategic in implementing the remainder of the Climate Action Plan.

### **Better Consideration of Evolving Technologies**

Since the adoption of the CAP in 2011, significant advancements have been made in technologies that positively impact GHG emissions. These include, but are not limited to, a rise in the following: cleaner vehicles; smart energy and water meters; more efficient mechanical, plumbing, and renewable energy systems in buildings; and better options to reduce waste generation. The impact of such advancements are two-fold: (1) the City needed to pivot and consider other strategies than what was originally identified in the CAP to reduce GHG emissions in several sectors and (2) some of the City's progress with its CAP measures has been directly due to new efficiencies in technologies. It may be beneficial for future CAP updates to be more flexible and less prescriptive when developing strategies for emissions reduction in order to accommodate ever-changing trends in automation and new technologies.

### **More Measures that fall within City's Control or Influence**

Several of the CAP items that had no reported action (e.g., accelerating smart grid integration, advocating for extended producer responsibility, establishing a water use enforcement officer, etc.)

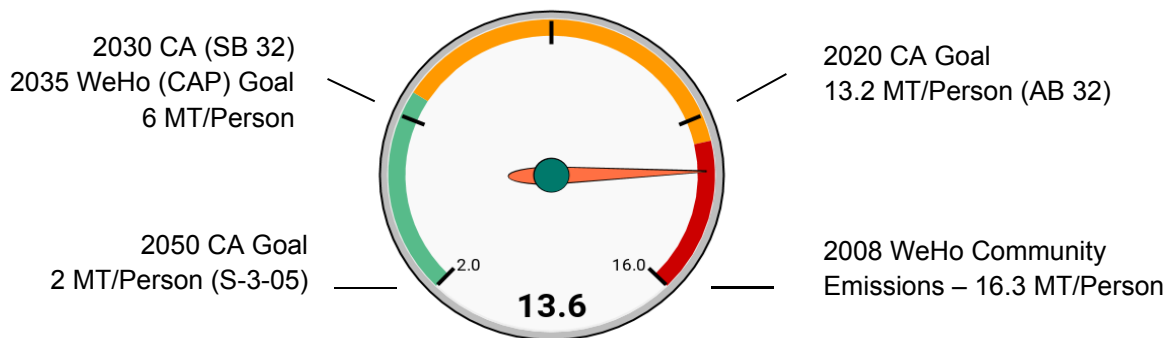


were reliant on regional partnerships, the City’s utility providers, or other third-parties. In some cases, the City has successfully partnered with these third-parties to achieve CAP outcomes using a different strategy than what was outlined in the CAP. In other cases, the City focused heavily on other CAP strategies under its direct control or on new programs now available such as the Clean Power Alliance to achieve CAP goals. Future CAP updates should focus on leveraging existing and new initiatives currently offered by utility providers to reduce GHG emissions and partnering with mission-aligned entities that can further specific CAP outcomes through localized expertise and additional personnel.

## CONCLUSION

The City of West Hollywood has made significant progress on emissions reductions, nearly meeting the 2020 goal for GHG reductions and clearly moving towards the State’s 2030 and 2050 goals (see Figure 30). Overall, the City has reduced per person emissions from 16.3 to 13.6 MT per person per year since 2008.

A majority of these reductions have been through cleaner energy sources, improvements in waste management and diversion, more efficient water infrastructure, and major improvements in building efficiency and energy consumption. As the City continues to take steps to improve its efficiency through policy milestones like the Green Building Program Update and large-scale advancements such as the Clean Power Alliance, its per capita emissions should continue to decrease. A more comprehensive update on transportation-related emissions should reveal a reduction in greenhouse gas emissions from this sector since 2008 and will further foster a downward trend in per capita emissions. The City is committed to reaching or even exceeding the goals set by the State in SB 32 by making consistent progress in sustainability efforts at the municipal level and community-wide.



**Figure 29. CAP Emission Progress.** The dial above shows West Hollywood’s overall progress towards local and state emission reduction goals. As of 2016, the City has reduced its emissions from 16.3 MT CO<sub>2</sub>e per person to 13.6 MT CO<sub>2</sub>e per person. To meet the goals of AB 32, the City has to reduce an additional 0.4 MT CO<sub>2</sub>e per person by 2020.

## APPENDIX A

The following tables provides an at-a-glance summary of all climate action measures and implementation actions identified in the 2011 West Hollywood Climate Action Plan to reduce community-wide and municipal emissions. The tables are separated by sector and denote whether each action is ongoing, complete, or has had no action as of the date of this report.

### SECTION I. COMMUNITY EMISSIONS MEASURES & ACTIONS

<b>LAND USE &amp; COMMUNITY DESIGN</b>			
Measure	Ongoing	Complete	No Action
<b>LU-1.1 Facilitate the establishment of mixed-use, pedestrian- and transit-oriented development along the commercial corridors and in Transit Overlay Zones (TOZ).</b>			
Target new development to City's commercial corridors and TOZs served by high levels of existing and potential public transit	✓		
Encourage mixed-use development in most commercial corridors		✓	
Change development standards to encourage mixed-use development in TOZs	✓		
<b>LU-1.2 Encourage the preservation and reuse of existing buildings.</b>			
Amend Zoning Code to promote reuse of existing buildings		✓	
Amend Historic Preservation Ordinance to strengthen provisions to promote reuse of historic buildings		✓	

<b>TRANSPORTATION &amp; MOBILITY</b>			
Measure	Ongoing	Complete	No Action
<b>T-1.1 Increase the pedestrian mode share in West Hollywood with convenient and attractive pedestrian infrastructure and facilities.</b>			
Conduct a pedestrian obstacle study		✓	
Update the Bicycle and Pedestrian Mobility Plan and ensure continued implementation		✓	
Conduct closing of streets to auto traffic to create temporary pedestrian streets	✓		
Expand existing Parks Route Walking Path			✓
Conduct pedestrian and traffic calming improvements	✓		
<b>T-2.1 Increase the bicycle mode share by providing accessible, convenient, and attractive bicycle infrastructure.</b>			
Update the Bicycle and Pedestrian Mobility Plan		✓	
Install bike lanes and routes, including improved signage and wayfinding	✓		
Require bike parking for new multi-family and commercial projects of more than 5,000 sf.	✓		
Require development projects in Transit Overlay Zone to provide bike parking/ bike share	✓		
Collaborate with SCAG, WSCOG, and City of Los Angeles on bike share program	✓		
Review and implement recommendations from City's Bicycle Task Force		✓	
<b>T-2.2 Install bike racks and bike parking in the City where bike parking infrastructure currently does not exist.</b>			
Conduct a bicycle parking analysis in the City's commercial areas		✓	
Update the Bicycle and Pedestrian Mobility Plan and ensure continued implementation	✓		
Install bike parking facilities in underserved areas	✓		

Measure	Ongoing	Complete	No Action
<b>T-3.1 Support efforts to enhance regional transit service and lobby for fixed-rail transit to West Hollywood.</b>			
Continue to lobby local, state, and federal officials for fixed-rail transit	✓		
Advocate for the expansion of local and regional transit systems to align with the City		✓	
<b>T-3.2 Expand locally managed transportation services and provide education on public transportation options.</b>			
Provide information on locally managed transportation services public transit options	✓		
Work with employers to make bus information available to employees	✓		
Expand locally managed transportation service hours and route coverage	✓		
<b>T-3.3 Conduct a public transit gap study that analyzes strategies to increase transit use within the City and identify funding sources for transit improvements.</b>			
Conduct a public transit gap study in partnership with Metro			✓
Conduct a feasibility study for street car line (Santa Monica to La Brea to Doheny)			✓
Work with Metro to plan a free monthly transit day for West Hollywood residents			✓
Determine feasibility of dedicated rush hour bus lanes along major roadways			✓
<b>T-3.4 Consult with Metro to provides bus stops with convenient bicycle and pedestrian access and essential improvements such as shelters, route information, benches, and lighting.</b>	✓		
<b>T-4.1 Enhance ride-share infrastructure to facilitate community participation.</b>			
Work with SCAG to develop a plan and schedule to update ride-match systems			✓
Work with SCAG to encourage employers to create rideshare databases for employees			✓
Identify locations for community rideshare stations and develop infrastructure			✓
<b>T-4.2 Pursue a car sharing program with car-share providers and regional partners including the City of Los Angeles, SCAG, and the Westside Cities COG.</b>			

Measure	Ongoing	Complete	No Action
Collaborate with car share companies to expand services in West Hollywood	✓		
Reduce parking requirements for developments that provide dedicated car share facilities	✓		
Collaborate with regional partners to expand car sharing			✓
<b>T-4.3 Assess and implement parking strategies in commercial corridors and in the Transit Overlay Zone (TOZ).</b>			
Amend Zoning Code to reduce parking requirements in commercial corridors and TOZ	✓		
Evaluate potential for shared parking strategies in commercial corridors and TOZ	✓		
Implement parking pricing strategies in commercial corridors and TOZ	✓		
Amend Zoning Code to establish parking maximums for projects in TOZ	✓		
Encourage developers of multi-family and commercial projects along commercial corridors and in TOZ to unbundle parking and eliminate assigned parking	✓		
Require multi-family and commercial developers and/or property management in commercial corridors and TOZ to provide a 50% transit subsidy for all employees/residents for the 20-year lifetime of the building	✓		

<b>ENERGY USE &amp; EFFICIENCY</b>			
Measures	Ongoing	Complete	No Action
<b>E-1.1 Develop a comprehensive outreach program to facilitate voluntary residential and commercial building energy efficiency improvements</b>			
Work with SCE & community organizations to create energy efficiency outreach programs	✓		
Develop and maintain a website linking to information about energy efficiency rebates, incentives, and case studies	✓		

Measure	Ongoing	Complete	No Action
<b>E-1.2 Develop a comprehensive residential renewable energy program that provides incentives, outreach, financing, and other forms of assistance.</b>			
Evaluate financing programs (AB 811) developed by regional/state agencies and select appropriate programs to fund residential investment in renewable energy		✓	
Develop capacity to administer selected energy efficiency financing programs	✓		
Develop a comprehensive outreach program to maximize participation in energy efficiency/renewable energy programs	✓		
<b>E-1.3 Work with Southern California Edison (SCE) to accelerate smart grid integration into the community.</b>			
Partner with SCE to develop a community smart grid integration plan			✓
Develop an outreach program that informs property owners and businesses about smart grid and smart appliance technologies			✓
Lobby SCE to expand smart grid program to include West Hollywood			✓
Update the Green Building Ordinance to require smart grid energy management and compatible HVAC and lighting in new construction	✓		
<b>E-1.4 Develop and implement a point-of-sale residential energy conservation ordinance (RECO) and commercial conservation ordinance (CECO).</b>			
Adopt a RECO and CECO requiring point-of-sale energy efficiency upgrades			✓
Develop a package of required improvements that achieves a 25% increase in efficiency			✓
Develop a list of qualified energy and water efficiency contractors and auditors			✓
<b>E-1.5 Develop an energy efficient appliance upgrade program for residents and business owners to promote upgrades from inefficient appliances to new Energy Star appliances.</b>			
Collaborate with SCE, SoCal Gas, and nonprofits to develop a comprehensive outreach and financial incentives program to encourage voluntary replacement of inefficient appliances	✓		
<b>E-2.1 Continue to fund and operate the Green Building Resource Center.</b>			
Continue to fund and operate the Green Building Resource Center	✓		

Measure	Ongoing	Complete	No Action
Provide public workshops/education on green building, materials, and energy efficiency	✓		
Develop a solar energy system display and materials	✓		
<b>E-2.2 Require all new construction to achieve California Building Code Tier II Energy Efficiency Standards.</b>			
Adopt the Tier II energy efficiency standards contained in Section 503.1.2 of the 2008 California Building Code for new construction	✓		
<b>E-3.1 Require that all new construction and condominium conversions be sub-metered to allow each tenant the ability to monitor their own energy and water use.</b>			
Amend the City's Green Building Ordinance to require new development and condominium conversions of multi-family residential and multi-tenant commercial buildings to install electricity, gas, and water meters for each unit	✓		
<b>E-3.2 Require the use of recycled materials for 20% of construction materials in all new construction.</b>			
Amend the City's Green Building Ordinance to require the use of recycled materials for 20% of construction materials in all new construction.	✓		
Improve the City's Green Building website with links for design and building professionals to organizations specialize in the availability of recycled building materials for construction, emphasizing the availability of locally available materials (within 500 miles)	✓		
<b>E-3.3 Facilitate installation of solar hot water heating systems on commercial and multi-family buildings.</b>			
Create an outreach program that promotes solar hot water systems and educates about the California Solar Initiative – Thermal Program and related federal incentives	✓		
Remove regulatory barriers to solar hot water system installation and streamline permitting process		✓	
<b>E-3.4 Facilitate the installation of solar photovoltaic (PV) systems on multi-family residential, commercial, and industrial buildings and parking lots.</b>			
Conduct analysis of potential regulatory, structural, and market barriers to installing PV systems on residential, commercial, and industrial buildings and parking lots		✓	
Develop outreach and technical assistance programs to encourage installation of PV		✓	

<b>WASTE REDUCTION &amp; RECYCLING</b>			
Measures	Ongoing	Complete	No Action
<b>SW-1.1 Establish a waste reduction target not to exceed 4.0 pounds per person per day.</b>			
Create a low-waste plan to reduce per capita per day solid waste disposal	✓		
Provide public education programs on low-waste strategies and implementation	✓		
<b>SW-1.2 Work with LA County cities and other organizations to urge adoption of state and federal legislation that requires extended producer responsibility and improves the recyclability of products and packaging.</b>			
Develop a resolution of support to urge the state and federal governments to pass legislation requiring extended producer responsibility and improving recyclability of products and packaging			✓
Evaluate opportunities to extend producer responsibility for product waste at local level. Expand opportunities for retail businesses to participate in take-back programs and grant-funded education			✓
<b>SW-1.3 Encourage the use of reusable and biodegradable materials in retail and commercial establishments.</b>			
Develop a plastic bag ban		✓	
Create an enforcement plan to increase compliance with polystyrene ban	✓		
Create a program to promote reusable bags and biodegradable food packaging/containers	✓		



GREEN SPACE			
Measures	Ongoing	Complete	No Action
<b>G-1.1 Increase and enhance the City's urban forest to capture and store carbon and reduce building energy consumption.</b>			
Continue to implement the Urban Forest Management Plan	✓		
Develop an outreach and incentive program about the benefits of the urban forest and encourage the planning of additional trees on private property	✓		
Supplement palm trees with canopy trees where appropriate	✓		
<b>G-1.2 Establish a green roof and roof garden program to standardize, promote, and incentivize green roofs and roof gardens throughout the City.</b>			
Develop a green roof program that standardizes and promotes green roofs and incentivize them through the Green Building Program	✓		
Encourage development of green roofs by providing outreach and education activities			✓
<b>G-1.3 Establish an innovative program to increase green space throughout the City.</b>			
Update the Residential Parkways Guidelines to convert impermeable hardscapes to permeable softscapes using native or drought-tolerant plants	✓		
Create an incentive program for developers to include pocket parks, increased open space, and other new open space			✓
Implement a parks master plan to guide operations, specify improvements, and pursue expansions, including new pocket parks throughout the City	✓		
Review existing and explore new funding mechanisms for acquiring additional parkland and open space	✓		
Convert unused areas within public rights-of-way into permeable planted spaces			✓
Convert Neighborhood Traffic Management Program projects (traffic circles, bulb outs, diverters, etc) to permeable planted spaces	✓		
Study the feasibility of adopting a parkland dedication ordinance to exact and receive parkland fees from new development, not including projects subdividing land or airspace			✓

Measures	Ongoing	Complete	No Action
Explore the conversion of 5,000 sf. of City-owned parking lots to green space	✓		

WATER USE & EFFICIENCY			
Measures	Ongoing	Complete	No Action
<b>W-1.1 Reduce per capita water consumption by 35% by 2025.</b>			
Work with water utilities to expand conservation outreach and promote rebate programs	✓		
Update climate-appropriate plant list and encourage property owners to use low-water and low-maintenance plant materials	✓		
Develop a targeted landscape irrigation outreach program for landscape professionals	✓		
Enforce the Water Conservation Plan and Green Building Ordinance through an enforcement officer position, fines, and water abuse hotline			✓
<b>W-1.2 Encourage all automated irrigation systems installed to include a weather-based control system.</b>			
Work with water utilities to promote evapotranspiration systems and rebate programs		✓	

SECTION II. MUNICIPAL EMISSIONS MEASURES & ACTIONS

COMMUNITY ENGAGEMENT & LEADERSHIP			
Measure	Ongoing	Complete	No Action
<b>CL-1.1 Create a position for a City Sustainability Manager/Coordinator and support staff to oversee implementation of the Climate Action Plan and sustainability programs.</b>			
Create a position for a Sustainability Manager/Coordinator		✓	
Adopt additional green policies for City operations	✓		
<b>CL-1.2 Reduce energy use in City facilities and operations.</b>			
Conduct an energy audit of all municipal buildings	✓		
Install solar PVs on municipal buildings	✓		
Purchase remaining power from renewable sources	✓		
Install electronic building performance displays in all publically accessible buildings			✓
Continue to install energy efficient lighting and hand dryers in municipal buildings	✓		
Advocate for utility providers to shift to renewable resources			✓
Work with SCE to convert all street, sidewalk, & park lights to energy-efficient technology	✓		
<b>CL-1.3 Reduce water use in City facilities and operations</b>			
Continue water audits of all municipal buildings and operations			✓
Continue to reduce water consumption in municipal buildings	✓		
Continue to reduce water consumption in municipal landscape irrigation	✓		
Install evapotranspiration systems in City landscapes		✓	

Measure	Ongoing	Complete	No Action
<b>CL-1.4 Reduce single-occupancy vehicle commuting by City employees</b>			
Continue to provide TDM subsidies to City employees	✓		
Explore creating a small-scale car sharing program for City employees			✓
Explore creating a small-scale bike sharing program for City employees		✓	
Eliminate free parking passes for City employees			✓
Promote telecommuting and alternative work schedules for City employees	✓		

## APPENDIX B

The 2016 emission data was calculated based on activities associated with each sector (e.g., energy use, vehicles miles traveled, water and wastewater use, etc.) and a corresponding emission factor. Tables B-1 and B-2 shows the 2016 community data and municipal data by source, respectively. Tables B-3 and B-4 shows the 2016 emission factors applied to community and municipal data, respectively. For vehicle miles traveled (VMT), the 2008 VMT data was used, but an updated emission factor was generated using the California Air Resources Board (CARB) Emission FACTors (EMFAC) model. In future reports, data from the upcoming transportation study will provide to gain a better understanding of the changes to VMT.

**Appendix Table B-1: 2016 West Hollywood Community Data by Source**

Source	Activity Data	Units
Electricity	272,607,681	kWh
Natural Gas	10,167,059	Therms
Waste	20,522	Tons of waste
Vehicle Miles Traveled	970,306,760	Vehicle Miles Traveled
Water and Wastewater	1,718,831	HCF Water

**Appendix Table B-2: 2016 West Hollywood Municipal Data by Source**

Source	Activity Data	Units
Electricity	5,848,307	kWh
Natural Gas	18,604	Therms
Waste	130	Tons of waste
Fleet Fuel Gasoline	8,902	Gallons of Gasoline
Fleet Fuel Diesel	0	Gallons of Diesel
Water and Wastewater	20,482	HCF Water

**Appendix Table B-3: 2016 Community Emission Factors**

2016 Community Emission Factors and References Item	Units	EF	Source
Natural gas	MT CO2e/Therm	0.00531	<a href="https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf">https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf</a>
Electricity	MT CO2e/kWh	0.00026	<a href="http://3blmedia.com/News/Southern-California-Edison-Publishes-2014-Corporate-Responsibility-Report">http://3blmedia.com/News/Southern-California-Edison-Publishes-2014-Corporate-Responsibility-Report</a>
Water	MT CO2e/HCF	0.00227	AEP Climate Change Committee's "The California Supplement to the United States Community-Wide Greenhouse Gas (GHG) Emissions Protocol"
Gasoline	MT CO2e/Gallon	0.00881	<a href="https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf">https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf</a>
Diesel	MT CO2e/Gallon	0.01032	<a href="https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf">https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf</a>
Waste (MSW)	MT CO2e/Ton Waste	0.42000	<a href="https://www.epa.gov/sites/production/files/2016-03/documents/warm_v14_management_practices.pdf">https://www.epa.gov/sites/production/files/2016-03/documents/warm_v14_management_practices.pdf</a>
VMT	MT CO2e/VMT	0.00037	2008 Inventory

**Appendix Table B-4: 2016 Municipal Emission Factors**

2016 Municipal Emission Factors and References Item	Units	EF	Source
Natural gas	MT CO2e/Therm	0.00531	<a href="https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf">https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf</a>
Electricity	MT CO2e/kWh	0.00026	<a href="http://3blmedia.com/News/Southern-California-Edison-Publishes-2014-Corporate-Responsibility-Report">http://3blmedia.com/News/Southern-California-Edison-Publishes-2014-Corporate-Responsibility-Report</a>
Water	MT CO2e/HCF	0.00227	AEP Climate Change Committee's "The California Supplement to the United States Community-Wide Greenhouse Gas (GHG) Emissions Protocol"
Gasoline	MT CO2e/Gallon	0.00881	<a href="https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf">https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf</a>
Diesel	MT CO2e/Gallon	0.01032	<a href="https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf">https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf</a>
Waste (MSW)	MT CO2e/Ton Waste	0.42000	<a href="https://www.epa.gov/sites/production/files/2016-03/documents/warm_v14_management_practices.pdf">https://www.epa.gov/sites/production/files/2016-03/documents/warm_v14_management_practices.pdf</a>

