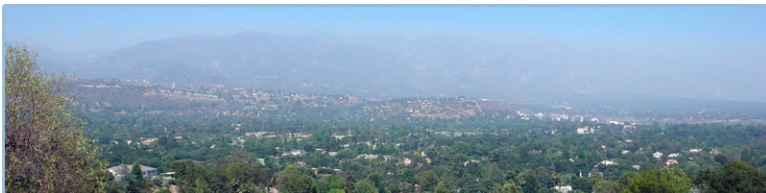




Chapter 8

Air Quality Element



8.0

AIR QUALITY ELEMENT

8.1 Introduction

The Air Quality Element is an optional element of the General Plan as authorized by Section 65303 of the Government Code. The overall goal of this element is for La Cañada Flintridge, as a city within the South Coast Air Basin (Basin), to assist other governmental agencies in the attainment of healthful air for La Cañada Flintridge and other Basin residents, including those sensitive to air pollution.

The intent of the Air Quality Element is to recognize and consider the relationship between land use, transportation, air quality, and other City policies in La Cañada Flintridge's planning efforts; to identify ways in which the City can reduce its emissions of air pollutants through various policies and programs; to assist the City and region to meet ambient air quality standards set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB); and to reduce greenhouse gas (GHG) emissions.

This chapter of the General Plan summarizes local and regional air quality conditions, sources of air pollution, health risks, and global warming and climate change. Summaries of pertinent technical information regarding each of these topics are provided in the Air Quality Element for general information and to provide a context for the goals, objectives, and policies. Additional information is included in the *City of La Cañada Flintridge Greenhouse Gas Inventory* (December 2009).

8.2 Setting

La Cañada Flintridge is located within the South Coast Air Basin (Basin), an approximately 6,745 square mile area that is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to

the San Gorgonio Pass area in Riverside County. Its terrain and geographical location – a coastal plain with connecting broad valleys and low hills – determine the distinctive climate of the Basin.

8.3 Existing Air Quality

8.3.1 Climate and Topography

The southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. Low temperature inversion, light winds, shallow vertical mixing, and extensive sunlight, in conjunction with topographical features such as adjacent mountain ranges that hinder dispersion of air pollutants, combine to create degraded air quality, especially in inland valleys of the Basin.

The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as human-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert. The greatest air pollution impacts throughout the Basin occur from June through September.

8.3.2 Ambient Air Quality Standards and Status

The federal Clean Air Act (CAA) establishes federal air quality standards known as National Ambient Air Quality Standards (NAAQS) for certain pollutants, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. The Basin fails to meet national attainment status for ozone (O₃), inhalable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and carbon monoxide (CO); therefore, it is considered a federal non-attainment area for these pollutants. It meets the national attainment status for sulfur dioxide (SO₂), and is considered in "primary maintenance" for nitrogen dioxide (NO₂).

The California Clean Air Act (CCAA) requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria

pollutants and have set standards for other pollutants recognized by the State. In general, the California health standards are more health protective than the corresponding NAAQS. The Basin fails to meet State attainment status for O₃, PM₁₀, and PM_{2.5}. The Basin meets State attainment status for CO, sulfates, hydrogen sulfide, and vinyl chloride, but does not meet the State standard for visibility.

Since La Cañada Flintridge is located within the Basin, it is in an area designated as a non-attainment area for certain pollutants that are regulated under both the CAA and CCAA, as noted above. The South Coast Air Quality Management District (SCAQMD) is responsible for monitoring air quality and preparing attainment plans, known as Air Quality Management Plans (AQMPs), aimed at achieving State and federal air pollution standards.

8.3.3 Local Area Air Quality Conditions

8.3.3.1 Existing Pollutant Levels at Nearby Monitoring Stations

SCAQMD has divided the Basin into 14 air monitoring areas and maintains a network of air quality monitoring stations located throughout the Basin. La Cañada Flintridge is located in the West San Gabriel Valley Monitoring Area, which is served by the Pasadena Monitoring Station, located approximately 5 miles south of the City.

Criteria pollutants monitored at this station include O₃, CO, NO₂, and PM_{2.5}. Monitoring data for the period between 2002 and 2006 shows the following pollutant trends.

Ozone concentrations have stabilized somewhat in the past 5 years compared to the large reduction that occurred from 1990 to 2000.

The State 1-hour ozone standard was exceeded 23 times in 2002 and 26 times in 2006. The national 8-hour ozone standard was exceeded 10 times in 2002 and seven times in 2006. Carbon monoxide concentrations are low and show a steady drop from 2002 to 2006. PM_{2.5} concentrations are affected by meteorology and show great variability during the 5-year span. The national 24-hour PM_{2.5} standard was exceeded 1 day in 2003, but was not exceeded during the other 4 years. The State annual PM_{2.5} standard has been exceeded at least once per year.



Air Monitoring Station in Pasadena

8.3.3.2 Local Sources of Air Pollution

Although the City's local air quality conditions are affected by sources outside the immediate area, local sources contribute significantly to the quality of air in the City. In La Cañada Flintridge, pollution generated from mobile sources includes exhaust and road dust from traffic on Interstate (I) 210 Freeway, State Route (SR) 2 Freeway, and Angeles Crest Highway – which are the major sources – and traffic on local streets. (See Section 8.3.4.1 below regarding the health risks associated with freeway emissions.)

Stationary sources of pollution generated by those living and working within the City include: fugitive dust from construction activity, grading, and erosion from unvegetated and unpaved areas; chemicals from local businesses, such as automobile repair businesses, dry cleaners, and other businesses that use chemicals; and pollution generated from commercial and residential use of natural gas.

8.3.4 Health Risks

8.3.4.1 Health Risks Associated with Freeway Emissions

I-210 is a regional east-west limited-access freeway that traverses the entire City; it generates an average daily traffic (ADT) volume of 107,000 to 121,000 vehicles. SR-2 is a regional north-south limited-access freeway that extends from I-210 in the City of Glendale south to Los Angeles; it generates an ADT volume of 110,000 vehicles per day south of I-210, and 12,800 north of I-210 (Caltrans 2006). The Los Angeles County Metropolitan Transportation Authority (Metro) is currently proposing an extension of the Long Beach Freeway (I-710) via a tunnel under South Pasadena to connect to the I-210 Freeway. The increase in automobile and truck traffic on I-210 resulting from the proposed I-710 extension would increase the exposure of La Cañada Flintridge and other surrounding communities to higher vehicular pollutant levels.

Recent air pollution studies indicate that residents living close to areas of high traffic counts and the associated traffic emissions, such as CO, ultra-fine particulates, and black carbon (soot), may be subject to adverse health effects beyond those associated with regional air pollution in urban areas (California Air Resources Board 2000 and 2005, Wilhelm et al. 2003, Kim et al. 2004, Zhu et al. 2002). There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: diesel particulate matter (DPM) from trucks and benzene and 1,3-butadiene from passenger vehicles. On a typical urban freeway (truck traffic of 10,000 to 20,000 per day), DPM represents about 70 percent of the potential cancer risk from the vehicular traffic.

The ARB's *Diesel Risk Reduction Plan* shows that cancer risk associated with elevated levels of DPM decreases by approximately 70 percent at a distance of 150 meters (492 feet) from the edge of the roadway. Consequently, the ARB recommended as an advisory measure a minimum 500-foot distance for the siting of new sensitive land uses (including residences) near freeways. However, the ARB recognizes that physical separation of the receptors from the pollutant sources is not always reasonable or feasible. For example, a sequence of land use decisions in urban areas allowed freeway construction through existing neighborhoods, such as in La Cañada Flintridge when I-210 was built.

According to ARB cancer inhalation risk data, the City is within a cancer risk zone of approximately 250 to 500 in one million (ARB 2006). This is largely due to DPM emissions from I-210 as it traverses La Cañada Flintridge. In comparison, the average cancer risk in the Basin is 1,400 per million.

8.3.4.2 Sensitive Receptors and Locations

Some people are particularly sensitive to certain pollutants. These people include those with respiratory illnesses or impaired lung function because of other illnesses, the elderly, and children. Facilities and structures where these people live or spend considerable amounts of time are known as sensitive receptors. Chapter 4 of the *SCAQMD Air Quality Analysis Guidance Handbook* (South Coast Air Quality Management District 1993) defines land uses considered to be sensitive receptors as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.

8.3.5 Global Warming/Climate Change

The temperature on Earth is regulated by a system commonly known as the "greenhouse effect," which is responsible for providing temperatures and climates that support life. "Global warming," simply defined, is the increase in the average surface temperature of the earth. Global warming is thought to be the result of an *enhanced* greenhouse effect, which is an increase in the concentration of GHGs in the atmosphere that results in an increase in the amount of heat-reflecting potential of the atmosphere, leading to an increase in the planet's average temperature and a change in climate. GHGs are both naturally occurring and anthropogenic (human-made). Human-produced GHGs considered by many scientists to be responsible for increasing the greenhouse effect and contributing to global warming include: carbon dioxide (CO₂), methane (CH₄), near-surface ozone (O₃), nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). Common sources of human-produced GHGs include burning fossil fuels, especially

coal and petroleum, and deforestation. In California, the transportation sector is the largest contributor to GHG emissions (38%), followed by production of electricity (23%), industry (20%), and commercial and residential uses (9%) (ARB Greenhouse Gas Inventory).

8.3.5.1 State Regulatory Response to Global Warming/Climate Change

Although global warming and climate change are still being debated in some quarters, the State of California considers them to be serious threats and has taken an aggressive stance to address global climate change through the adoption of legislation and policies aimed at reducing Statewide emissions, the most relevant of which are summarized below.

- Executive Order S-3-05, signed by Governor Arnold Schwarzenegger, establishes GHG emission reduction targets for State agencies as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.
- Assembly Bill (AB) 32, the “Global Warming Solutions Act of 2006,” states that global warming poses a serious threat to the public health, environment, economic well-being, and natural resources of California and requires that the State’s global warming emissions be reduced to 1990 levels by the year 2020. This is roughly equivalent to a reduction in emissions to 15 percent below current levels.
- SB 97 (2007) required the Office of Planning and Research (OPR) to prepare amendments to the CEQA Guidelines to submit to the California Resources Agency regarding feasible mitigation of GHGs or the effects of GHG emissions. These amendments were adopted in the spring of 2010.
- SB 375 (2008) calls for coordinated land use and transportation planning as a means to address climate change by adding consideration of GHG emissions from automobiles and light trucks and linking regional transportation plans (RTPs) to infill development and housing. Pursuant to SB 375, the Southern California Association of Governments (SCAG) adopted a Sustainable Communities Strategy (SCS) as part of the 2012–2035 RTP. The SCS demonstrates how the region will meet GHG emissions targets set forth by the ARB. The SCS places an emphasis on future land use patterns that focus new housing and development near transit.

There are many plans, regulations, rules, and other actions that have been or are in the process of being developed at the State and regional levels to implement California’s global warming/climate change legislation. While the largest

potential GHG emissions reductions are dependent on State actions, local governments will play a significant role in GHG reduction strategies and will be required to take actions to meet the mandatory reduction goals. The *Climate Change Scoping Plan* (December 2008), prepared by the ARB pursuant to AB 32, notes that in some cases, local governments have exclusive authority over emission sources through their processes, policies, and ordinances.

8.3.5.2 City Inventory of GHG Emissions

To gain an understanding of the overall GHG emissions profile for La Cañada Flintridge in response to the State's reduction mandates, the City prepared a 2007 GHG inventory for both the City's municipal operations ("government inventory") and citywide activities ("community inventory"). The two 2007 inventories are based on actual 2007 activity data and emission factors.

The City also prepared 1990 and 2020 estimates of emissions for both government operations and community activities to support the development of a GHG reduction policy. The 1990 emissions estimate is based on the 2007 inventory, as well as historical population, activity, and growth information. The 2020 emissions projection represents "business as usual" (BAU) emissions associated with the City in 2020. The inventories define a baseline emissions level from which La Cañada Flintridge can begin to quantify emission reduction efforts to comply with AB 32 goals. Figures AQE-1 and AQE-2 summarize the sources of GHG emissions from citywide activities and municipal operations. (Please refer to the *City of La Cañada Flintridge Greenhouse Gas Inventory* for additional information.)

Figure AQE-1. La Cañada Flintridge 2007 Community Inventory

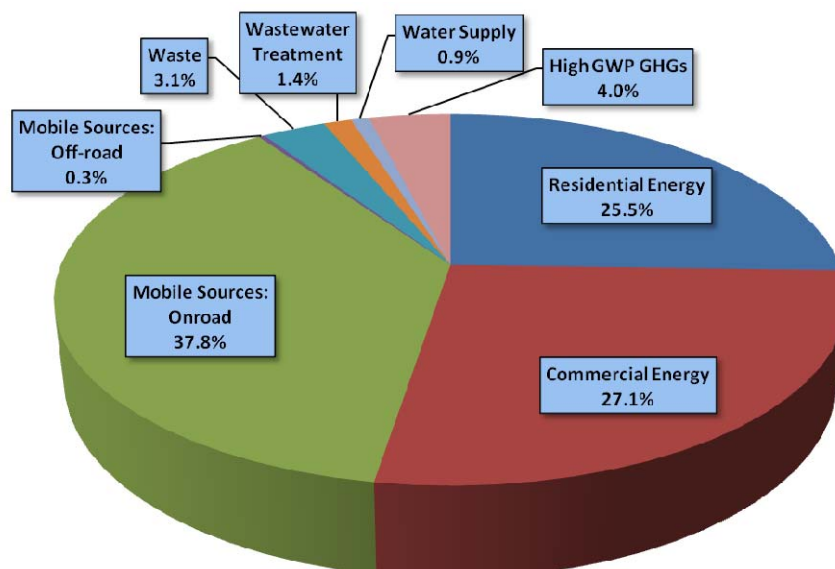
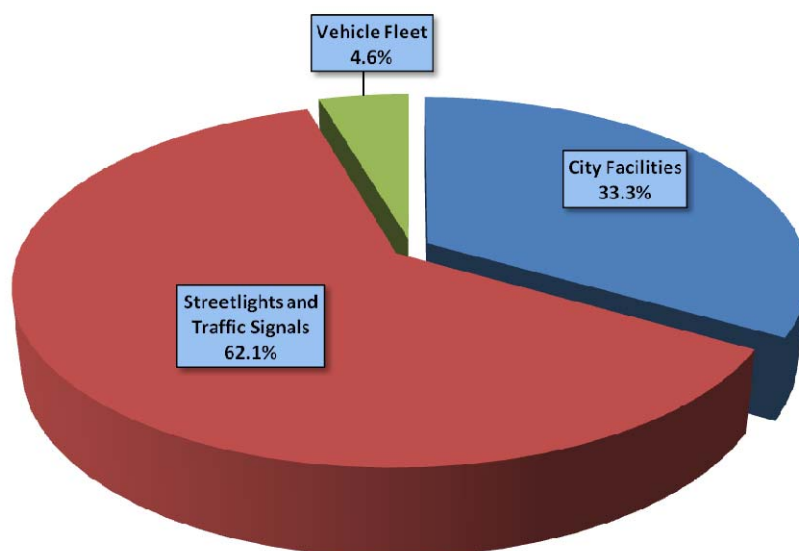


Figure AQE-2. La Cañada Flintridge 2007 Government Inventory

8.4 Planning to Address Air Pollution and GHG Emissions

Over the past 30 years, substantial progress has been made in reducing air pollution levels in southern California. However, the Basin still exceeds national and State attainment standards for many air pollutants. Since the last update of the City's General Plan, the State has adopted legislation that also mandates reduction of GHG emissions to 1990 levels. Although air quality and global warming/climate change are issues that are beyond the control of any individual entity to solve, cities have a role and responsibility in helping to improve their region's air quality and reduce GHG emissions. They also have a role in mitigating actions that contribute to air pollution impacts on those who live, work, and recreate within their respective jurisdictions.

One of the most effective mechanisms available to cities for encouraging land use compatibility and the reduction or avoidance of cumulative air pollution impacts is through the General Plan. The City's plan to address air pollution and global warming/climate change is summarized below and described further in Section 8.5, *Goals, Objectives, and Policies*. In addition, policies have been incorporated into other General Plan elements to work collectively to support land use, circulation, and other decisions to improve air quality for residents and the greater community and reduce GHG emissions.

8.4.1 The Air Pollution and GHG Emission Reduction Plan

Vehicles are the largest source of air pollution and GHG emissions in the City and State. Development patterns have an impact on the degree to which people must use passenger vehicles to carry out the activities in their daily lives, such as shopping, running other errands, going to entertainment venues, and getting to and from work. Policies and programs that foster sustainable, compact, multi-modal oriented development can reduce the need for vehicles, which in turn can improve air quality and reduce GHG emissions. Although La Cañada Flintridge is nearly built out, the City will encourage new development to incorporate sustainable development principles when properties are redeveloped and when infill development is constructed during this planning period. These principles are consistent with the *City of La Cañada Flintridge Downtown Village Specific Plan (DVSP)*, which was adopted in 2000. The sustainable development principles that are promoted in this General Plan update include:

- multi-modal (pedestrian, transit, and bicycle-oriented) design;
- mixed use development (a mix of compatible land uses within the same development or near each other);
- location of senior and other higher density residential housing within walking distance of retail, commercial, and other convenience uses, as well as transit stops; and
- a human scale of development that is oriented toward pedestrians and those utilizing alternative methods of transportation.

An efficient circulation infrastructure can reduce air pollution and GHG emissions and facilitate the sustainable development principles described above. During this planning period the City will implement infrastructure improvements, plans, and techniques that promote the efficient use of the street system and support multi-modal transportation options. The City will support various efforts to reduce the use of vehicles and their associated polluting air emissions by promoting the use of alternative modes of transportation, encouraging employers to implement transportation demand management strategies, and working with local and regional partners to expand existing and/or develop new transit services.

The City also will support and implement other types of policies, plans, programs, activities, and regulations to reduce air pollution and to reduce GHG emissions to 1990 levels, pursuant to AB 32, and will encourage local employers and businesses to do the same. These efforts include: preparing and implementing a Climate Action Plan for both community activities and municipal operations, updating the City's *Greenhouse Gas Inventory*, minimizing fugitive dust, promoting energy conservation and increased energy efficiency, promoting waste reduction and recycling, applying new emission control policies, and using renewable resources.

As noted earlier, improving air quality in the Basin is beyond the ability of any individual city's ability. Therefore, the City will coordinate and cooperate with local, regional, and State agencies to improve air quality and reduce GHG emissions and the associated health and environmental risks. These efforts will include:

- monitoring research, monitoring and implementing legislation and regulations regarding air quality and global warming/climate change;
- developing and implementing effective mitigation measures to improve air quality and reduce GHG emissions that do not unduly impact businesses and employers;
- monitoring air quality impacts of the local freeways on sensitive receptors; and
- continuing to lobby in opposition to the I-710 Freeway extension.

The City also will undertake communication, outreach, and education programs to increase the public's awareness of air quality and GHG emissions issues and how their actions can affect air quality.

8.5 Goals, Objectives, and Policies

The goals, objectives, and policies in the Air Quality Element promote appropriate land use and circulation infrastructure planning and implementation, air pollution and GHG emission reductions, reduction in the use of vehicles and encouragement of alternative transportation options, interagency cooperation and coordination, public education and outreach, and continued monitoring of research and changes in regulations to improve air quality within the Basin and the City and reduce the health risk to the community.

AQ GOAL 1: Improve air quality and reduce GHG emissions locally and within the Basin through implementation of land use planning and circulation infrastructure policies and programs that foster sustainable, compact, multi-modal oriented development.

AQ Objective 1.1: Promote land use planning that provides for efficient distribution of land uses and development regulations to achieve reductions in vehicular trips.

AQ Policy 1.1.1: Implement the DVSP to preserve and enhance a small-scale pedestrian-oriented atmosphere with a village character.

AQ Policy 1.1.2: Implement pedestrian and transit-oriented development guidelines and standards proposed in the Land Use Element (see Land Use Element Goals 2 and 3 and supporting objectives and policies) to reduce

reliance on passenger vehicles, such as proximity to transit, pedestrian and bicycle facilities, preferential parking for low- / zero-emission vehicles and car- and van-poolers, and energy-conserving buildings.

AQ Policy 1.1.3: Promote commercial/residential mixed use at appropriate locations along Foothill Boulevard, as per the DVSP and new mixed use land use designations in the Land Use Element.

AQ Policy 1.1.4: Promote senior and multi-family housing within walking distance of retail and commercial services.

AQ Policy 1.1.5: Preserve open space within the City to minimize sprawl and provide GHG “sinks” (natural or human-made reservoirs that absorb and store more GHG from the atmosphere than they release).

AQ Policy 1.1.6: Ensure that new developments implement air quality mitigation measures, such as ventilation systems, adequate buffers, and other pollution reduction measures and carbon sequestration sinks, especially those that are located near existing sensitive receptors.

AQ Policy 1.1.7: Discourage the location of new, or expansion of existing, sensitive receptor land uses adjacent to I-210.

AQ Policy 1.1.8: Encourage site plan designs to provide appropriate setbacks from I-210 and SR-2.

AQ Policy 1.1.9: Encourage a variety of businesses to locate in the City, including commercial/professional office uses and “clean,” high-technology businesses that provide high-skill/high-wage job opportunities.

AQ Policy 1.1.10: Encourage telecommuting options with new and existing employers through project review and incentives, as appropriate.

AQ Objective 1.2: Reduce air pollution and GHG emissions by proper planning for, and implementation of, the City’s circulation infrastructure.

AQ Policy 1.2.1: Implement traffic calming techniques and changes to sidewalk and roadway configurations within the DVSP, and implement them along other parts of Foothill Boulevard, to reduce the speed of traffic along Foothill Boulevard, to increase pedestrian crossing opportunities on Foothill Boulevard, and to increase the ease and convenience of crossing the roadway by reducing the walking distance across the streets.

AQ Policy 1.2.2: Expand the use of traffic calming techniques and changes to sidewalk and roadway configurations identified in the DVSP along other parts of Foothill Boulevard to enhance a pedestrian-oriented environment.

AQ Policy 1.2.3: Promote efficient use of the street system by making improvements, such as coordination of signal time and other intersection improvements, to improve circulation patterns and flow of traffic in the City.

AQ Policy 1.2.4: Implement the Bicycle Transportation Plan to support and encourage bicycle use as an alternative to passenger vehicle transportation.

AQ Policy 1.2.5: Implement the recommendations of the Parking Study for the DVSP to locate parking appropriately to encourage pedestrian movement.

AQ GOAL 2: Improve air quality and reduce GHG emissions locally and within the Basin by reducing use of passenger vehicles.

AQ Objective 2.1: Reduce the amount of vehicular emissions by promoting alternative modes of transportation and transportation demand management strategies.

AQ Policy 2.1.1: Pursue opportunities to establish a pilot program for an integrated shuttle system to serve school trips and other community needs with a system of vans or small buses.

AQ Policy 2.1.2: Evaluate expansion of local and regional transit services to reduce dependence on passenger vehicles.

AQ Policy 2.1.3: Enhance connections to the Metro Gold Line.

AQ Policy 2.1.4: Promote programs that require special event centers, such as Descanso Gardens and Lanterman Auditorium, to provide transit inducements to their patrons for overall trip reductions.

AQ Policy 2.1.5: Encourage the use of alternative transportation modes such as bicycles for school and employment-related trips.

AQ Objective 2.2: Encourage local employers and businesses to implement policies and programs that reduce their employees' dependence on single-passenger vehicles for travel to and from work.

AQ Policy 2.2.1: Continue to cooperate with the La Cañada Unified School District to explore opportunities for establishing trip-reduction programs and guidelines for schools. These programs may include evaluating the potential use of Prop-A funds for establishing bus service and trip-reduction programs for the school district or school-oriented trips, such as after-school programs for youth; and/or establishing fixed-route bus routes to serve school sites and residential areas by the City and/or the school district.

AQ Policy 2.2.2: Encourage employers and businesses to implement transportation demand management strategies, such as telecommuting, ridesharing, work schedule changes (including flex time, compressed work week, staggered work schedule, etc.), and employer-based transportation programs (including employer-subsidized bus passes, guaranteed ride home programs, and vanpool programs).

AQ Policy 2.2.3: Support voluntary, employer-based trip reduction programs, including:

- a. providing assistance to regional and local ridesharing organizations;
- b. advocating for legislation to maintain and expand incentives for employer ridesharing programs;
- c. requiring the development of Transportation Management Associations for large employers and commercial complexes; and
- d. providing public recognition of effective programs through awards, top ten lists, and other mechanisms.

AQ GOAL 3: Reduce air pollution and GHG emissions through conservation activities, policies and programs, regulations, and use of technology.

AQ Objective 3.1: Reduce the amount of fugitive dust emitted into the atmosphere.

AQ Policy 3.1.1: Develop and implement plans to minimize dust from areas within the City that are prone to soil erosion from wind.

AQ Policy 3.1.2: Require stabilization of land disturbed as a result of construction projects, including short-term methods during construction (e.g., watering active construction areas, covering open stockpiles, applying non-toxic soil stabilizers on unpaved access roads and temporary parking areas) and permanent methods post-construction (e.g., vegetation or revegetation, installation of hardscape, etc.).

AQ Objective 3.2: Reduce air pollution and GHG emissions generated by local employers and businesses through policies that assist them in meeting regulations while cultivating a positive business climate.

AQ Policy 3.2.1: Review all air quality regulations to determine whether such regulations have the potential to adversely affect the predominantly small local businesses.

AQ Policy 3.2.2: Refer businesses to sources of assistance for compliance with air quality requirements, including utility companies and SCAQMD.

AQ Policy 3.2.3: Promote an employee work force for local employers that draws from local residents.

AQ Objective 3.3: Reduce air pollution and GHG emissions through new emission control technologies, increased energy efficiency, and use of renewable energy.

AQ Policy 3.3.1: Support and promote the use of low- and zero-emission vehicles (LEV and ZEV), and alternative fuels, and other measures to directly reduce emissions from motor vehicles, including:

- a. developing the necessary infrastructure to encourage the use of low- and zero-emissions vehicles and clean alternative fuels, such as development of electric vehicle charging facilities and conveniently located alternative fueling stations;
- b. encouraging new construction to include vehicle access to properly wired outdoor receptacles to accommodate ZEV and/or plug in electric hybrids (PHEV); and
- c. encouraging employers and businesses that have fleet vehicles to purchase vehicles that achieve the lowest emissions possible, using a mix of alternate fuels, partial zero emissions vehicle (PZEV) or better fleet mixes.

AQ Policy 3.3.2: Develop and implement a plan to reduce gasoline fuel consumption in each of four light-duty vehicle categories by no less than 5 percent, relative to fleet size, by 2012 (using 2006 as a baseline).

AQ Policy 3.3.3: Continue to implement the 20% Renewable Energy Goal, which established the goal for adding at least 20 percent of renewable energy (including photovoltaic solar panels, solar thermal water heating panels, wind generators, and other renewable technologies) for the City government operations by 2017.

AQ Policy 3.3.4: Develop and adopt an Urban Heat Island Mitigation policy or program that includes the use of alternative materials for roads and roofing, the planting of shade trees over parking lots on public and private property, and other land use techniques to combat urban heat island effects.

AQ Policy 3.3.5: Continue to implement the City's Preservation, Protection, and Removal of Trees Ordinance (Chapter 4.26 of the La Cañada Flintridge Municipal Code [LCFMC]).

AQ Objective 3.4: Reduce air pollution and GHG emissions through energy conservation.

AQ Policy 3.4.1: Conduct energy audits at municipal facilities to identify areas where energy efficiency can be increased, and encourage owners and/or operators of other facilities to do the same.

AQ Policy 3.4.2: Purchase energy efficient products that either meet Energy Star® specifications or are in the upper 25 percent of energy efficiency standards, and encourage residents and businesses to do the same.

AQ Objective 3.5: Reduce air pollution and GHG emissions through waste reduction, diversion of solid waste from landfill operations, and recycling.

AQ Policy 3.5.1: Continue to participate in enhancement and expansion of the existing area-wide hazardous waste collection programs.

AQ Policy 3.5.2: Maintain efforts to reduce municipal use of hazardous materials and ozone-depleting compounds.

AQ Policy 3.5.3: Continue the City's mandatory green waste collection and recycling program for all single-family residences.

AQ Policy 3.5.4: Consider adopting a mandatory green waste collection program for multi-family residences and commercial operations.

AQ Policy 3.5.5: Adopt a recycling program for multi-family residences and commercial operations pursuant to the Mandatory Commercial Recycling Measure being developed pursuant to the Scoping Plan adopted by the ARB to implement the AB 32.

AQ Policy 3.5.6: Continue to implement the City's Recycling and Diversion of Construction and Demolition Debris Ordinance (Chapter 9.14 of the LCFMC) to reduce the amount of GHG emissions associated with the disposal of solid waste into landfills.

AQ Policy 3.5.7: Promote diversion of reusable furniture, appliances, building materials, clothing, household and other items to local reuse enterprises such as thrift stores, Habitat for Humanity ReStore, Goodwill, Salvation Army, and the California Materials Exchange (CalMAX).

AQ Policy 3.5.8: Encourage the community to produce less waste by reducing, reusing, and recycling and to purchase reusable and recyclable products and products made from recycled materials.

AQ Policy 3.5.9: Consider adopting a program to increase asphalt recycling and the use of recycled asphalt and cement, including:

- a. requiring recycled asphalt pavement (RAP) for streets and roads;
- b. requiring RAP for community and commercial parking lots, where feasible;
- c. encouraging schools and public agencies to use RAP for parking lots;
- d. for City-sponsored projects, requiring 100 percent in-place recycling of recovered asphalt concrete and Portland cement, where feasible; and
- e. considering modification of the City's Construction and Demolition Debris Ordinance to increase the minimum diversion rate for asphalt and concrete.

AQ Policy 3.5.10: Continue to work closely with solid waste disposal companies in providing trash pick-up services, and reduce the per capita production of solid waste as defined in the City's Source Reduction and Recycling Element.

AQ Policy 3.5.11: Continue to comply with the Integrated Waste Management Act by maintaining and implementing an up-to-date Source Reduction and Recycling Element and Non-Disposal Facility Element.

AQ Policy 3.5.12: Seek public input in the development of solid waste management programs as needed.

AQ GOAL 4: Reduce GHG emissions from all activities within the City boundaries to support the State’s efforts under AB 32 and to mitigate the impact of climate change.

AQ Objective 4.1: By 2020, reduce GHG emissions from within the City’s boundaries to a level 15 percent less than the level that would otherwise occur if all activities continued under a “business as usual” scenario.

AQ Policy 4.1.1: Prepare a Community Climate Action Plan (CCAP), in collaboration with the stakeholders from the community at large, which will include measures to incentivize and support reductions in GHG emissions from community activities, and which will seek to reduce emissions by at least 15 percent by 2020 compared to the 2007 baseline community emissions inventory (including any reductions required by the ARB under AB 32).

AQ Policy 4.1.2: Establish a Municipal Climate Action Plan (MCAP), which will include measures to reduce GHG emissions from municipal activities by at least 15 percent by 2020 compared to the 2007 baseline municipal emissions inventory (including any reductions required by the ARB under AB 32).

AQ Policy 4.1.3: Update the City’s GHG emissions inventories, which include emissions from all sectors within the City, as necessary to incorporate improved methods, better data, and more accurate tools and methods, and to assess progress.

AQ GOAL 5: Reduce GHG emissions from municipal (City-owned) facilities and operations, and by purchasing goods and services that embody or create fewer GHG emissions.

AQ Objective 5.1: Enhance the energy efficiency of City facilities.

AQ Policy 5.1.1: Prepare and implement a comprehensive plan to improve energy efficiency of municipal facilities, including:

- a. conducting energy audits for all municipal facilities;
- b. retrofitting facilities for energy efficiency where feasible and when remodeling or replacing components, including increasing insulation, and installing green or reflective roofs and low-emissive window glass;
- c. implementing an energy tracking and management system;
- d. installing energy-efficient exit signs, street signs, and traffic lighting;
- e. installing energy-efficient lighting retrofits and occupancy sensors, and instituting a “lights out at night” policy;
- f. retrofitting heating and cooling systems to optimize efficiency (e.g., replace chillers, boilers, fans, pumps, belts, etc.);

- g. installing Energy Star appliances and energy-efficient vending machines;
- h. improving efficiency of water pumping and use at municipal facilities, including a schedule to replace or retrofit system components with high-efficiency units (i.e., ultra-low-flow toilets, fixtures, etc.);
- i. providing chilled, filtered water at water fountains and taps in lieu of bottled water;
- j. installing a central irrigation control system and time its operation for off-peak use; and
- k. adopting an accelerated replacement schedule for energy inefficient systems and components.

AQ Policy 5.1.2: Require that any newly constructed, purchased, or leased municipal space meet one or more of the following minimum standards as appropriate, including:

- a. requiring buildings to meet LEED criteria established by the U.S. Green Building Council;
- b. incorporating passive solar design features in new buildings, including daylighting and passive solar heating;
- c. retrofitting existing buildings to meet standards under Title 24 of the California Building Energy Code, or to achieve a higher performance standard as established by the City/County; and
- d. retrofitting existing buildings to decrease heat gain from non-roof impervious surfaces with cool paving, landscaping, and other techniques.

AQ Policy 5.1.3: Ensure that staff receives appropriate training and support to implement objectives and policies to reduce GHG emissions, including:

- a. providing energy efficiency training to design, engineering, building operations, and maintenance staff; and
- b. providing information on energy use and management, including data from the tracking and management system, to managers and others making decisions that influence energy use.

AQ Policy 5.1.4: Create a Capital Reinvestment Fund to provide capital for future energy efficiency improvements from ongoing energy efficiency savings.

AQ Objective 5.2: Implement measures to reduce City employee vehicle trips and to mitigate emissions impacts from municipal travel.

AQ Policy 5.2.1: Implement a program to reduce vehicle trips by City employees, including:

- a. providing incentives and infrastructure for vanpooling and carpooling, such as pool vehicles, preferred parking, and a website or bulletin board to facilitate ride-sharing;
- b. providing subsidized passes for mass transit;
- c. offering compressed work hours, off-peak work hours, and telecommuting, where appropriate; and
- d. offering a guaranteed ride home for employees who use alternative modes of transportation to commute.

AQ Objective 5.3: Manage the City's stock of vegetation to reduce GHG emissions.

AQ Policy 5.3.1: Conduct a comprehensive inventory and analysis of the urban forest, and conduct tree maintenance consistent with best management practices.

AQ Policy 5.3.2: Evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and install or replace vegetation with drought-tolerant, low-maintenance native species or edible landscaping that can also provide shade and reduce heat-island effects.

AQ Objective 5.4: Use the City's purchasing power to promote reductions in GHG emissions by the suppliers of its goods and services.

AQ Policy 5.4.1: Adopt purchasing practices and standards to support reductions in GHG emissions, including preferences for energy-efficient office equipment and the use of recycled materials and manufacturers that have implemented green management practices.

AQ Policy 5.4.2: Establish bidding standards and contracting practices that encourage GHG emissions reductions, including preferences or points for the use of low or zero emission vehicles and equipment, recycled materials, and provider implementation of other green management practices.

AQ Objective 5.5: Implement measures to reduce municipal waste generation.

AQ Policy 5.5.1: Audit facilities to identify opportunities to reduce waste generation, increase material recovery, and increase beneficial use of organic material. Where practical, implement the recommendations of the audits.

AQ GOAL 6: Improve air quality and reduce GHG emissions and the health risks associated with air pollution through regional coordination, cooperation, advocacy, public education, and monitoring of air quality conditions, legislation, and policies.

AQ Objective 6.1: Work with local, regional, and State agencies to reduce vehicular and GHG emissions from freeways.

AQ Policy 6.1.1: Continue to oppose the extension of the I-710 Freeway due to the increase in automobile and truck traffic on the I-210 Freeway that would result from the proposed extension, and the negative health risks the extension poses for La Cañada Flintridge and surrounding communities due to higher vehicular pollutant levels.

AQ Policy 6.1.2: Continue to monitor air quality impacts on the health of the City from vehicular emissions associated with freeway traffic.

AQ Policy 6.1.3: Work with regional agencies to develop or expand ridesharing programs, facilities, various modes of public transit, and Park-and-Ride facilities.

AQ Policy 6.1.4: Coordinate with local and regional transportation agencies and cities to plan and construct new multi-modal transportation facilities on the basis of this General Plan that are consistent throughout the neighboring jurisdictions.

AQ Objective 6.2: Stay current regarding research and regulations related to air quality and GHG emissions reductions.

AQ Policy 6.2.1: Monitor changes in State regulations related to air quality and climate change, including implementation of AB 32 and SB 375, and develop policies and programs and update local regulations as appropriate.

AQ Policy 6.2.2: Evaluate and disclose in CEQA documents the contribution new projects could have on climate change and require mitigation measures as appropriate.

AQ Objective 6.3: Coordinate with local, regional, and State agencies to develop and/or implement effective mitigation measures to improve air quality and reduce GHG emissions to implement State and federal laws.

AQ Policy 6.3.1: Continue to participate in the Arroyo-Verdugo Subregional Council of Governments to coordinate infrastructure policies and programs with adjacent and nearby cities to develop a needed area-wide transportation infrastructure.

AQ Policy 6.3.2: Utilize Proposition A (1/2-cent sales tax) funds in concert with other cities to maximize air quality goals for developing local transportation programs that may include bicycle facilities, a school bus program, and/or shuttle service or community bus program.

AQ Policy 6.3.3: Ensure that new and innovative air quality and GHG emissions reduction policies established by any jurisdiction are communicated to other jurisdictions through the Arroyo-Verdugo Subregional Council of Governments, San Gabriel Valley Council of Governments (SGVCOG), and other area-wide task forces.

AQ Policy 6.3.4: Cooperate with other jurisdictions in the Arroyo-Verdugo Subregion and SGVCOG to further the strategies outlined in the SGVCOG Air Quality Plan and/or in the development of a regional or subregional sustainable communities strategy (SCS) for the RTP.

AQ Policy 6.3.5: Encourage the County of Los Angeles to establish programs that support the Arroyo-Verdugo Subregion and SGVCOG air quality policies and apply such policies to the unincorporated pockets within the Arroyo-Verdugo Subregion and the SGVCOG for consistency with local programs.

AQ Policy 6.3.6: Monitor the SCAQMD and the ARB in their development of improved ambient air quality and GHG monitoring capabilities and establishment of standards, thresholds, and rules to address, and where necessary mitigate, the air quality impacts of new development.

AQ Policy 6.3.7: Identify and pursue funding opportunities to develop and implement mitigation activities.

AQ Objective 6.4: Increase public awareness of air quality and climate change issues through public outreach and education, including publicizing the importance of reducing GHG emissions and steps community members can take to reduce their individual impacts.

AQ Policy 6.4.1: Promote programs that educate the public about regional and local air quality issues, opportunities, and solutions.

AQ Policy 6.4.2: Facilitate public compliance with regional air quality regulation through improved public education programs and curricula.

AQ Policy 6.4.3: Encourage greater public participation in voluntary efforts to reduce air pollution and GHG emissions through local public education programs, speaker's bureaus, and other measures.