

# Chapter Two – Resource Management

## INTRODUCTION

The Resource Management Chapter of the Sierra Madre General Plan contains seven components: hillside preservation, co-existence with wildlife, Dark Sky, tree preservation, water resources, waste management/recycling, and air quality. With the exception of co-existence with wildlife and Dark Sky, all are required as part of the State-mandated conservation element.

Sustainable policies and goals are called out by a green leaf icon.



## Section One: Hillside Preservation

### OVERVIEW OF EXISTING CONDITIONS

The City of Sierra Madre is known for its scenic foothills, which contain land forms, slopes, animal life and vegetation that are increasingly rare. The City has established and updated a Hillside Management Zone Ordinance to limit development to that which is sensitive to the unique characteristics found in the hillside areas. The Hillside Management Zone sets forth a mandate to preserve the identity, image and environmental quality of the City, and to maintain an environmental equilibrium consistent with the native vegetation, animal life, geology, slopes and drainage patterns.

Sierra Madre, because of its location, is a steward of water quality for the neighboring communities to the south. The San Gabriel Watershed and Mountains Special Resource Study determined and documented that water quality is dependent on the level of development and land use. Sierra Madre is committed to preserving the hillside areas and ensuring that development in the hillside is located in those areas resulting in the least

environmental impact. The Hillside Management Zone contains development standards and procedures which require extensive planning and environmental information prior to the City making a determination on project requests. The development standards ensure sensitivity to the terrain and prevent over-development which would destroy the natural environs. The City requires that all development in the hillside areas be designed to fit the existing land forms and preserve significant features of the natural topography. Development must also be undertaken by using minimal amounts of grading and removal of natural vegetation, and with the prevention of land instability and fire hazards in mind.

Standards for development in the hillside areas outline specific requirements, including but not limited to, drainage, grading, fencing, landscaping, architectural controls for site design, and building design, in order to be sensitive to the natural terrain.

#### SUMMARY OF HILLSIDE PRESERVATION GOALS

1. Preservation of the identity, image, and environmental quality of hillside areas. 
2. Acquisition, to the extent feasible, of as much hillside land as possible by non-profit open space conservation organizations to prevent development and promote the protection of hillside land as natural open space. 
3. Public access to the San Gabriel Mountains via parks, trails and roads. 
4. ~~Acquisition and p~~Protection of hillside open space for public health and safety, and sustainability. 

#### OBJECTIVES AND POLICIES

The City has established the following objectives and policies for hillside preservation in Sierra Madre. The implementation measures are contained in the Implementation Chapter at the end of the General Plan.

Objective R1: The protection of hillside areas to preserve their unique character. 

Policies:

- R1.1 Maintain and enforce the Hillside Management Zone Ordinance and other ordinances that seek to protect hillside areas. 
- R1.2 Work with other hillside communities in the San Gabriel Valley to establish a protected hillside corridor along the entire length of the San Gabriel Mountains. 

Objective R2: The purchase of hillside properties by non-profit organizations dedicated to the preservation of natural open space. 

Policies:

- R2.1 Assist the Sierra Madre Mountains Conservancy and other non-profit organizations in the application of funds to purchase hillside property. 
- R2.2 Designate properties purchased by the Conservancy and other non-profit organizations as natural open space utilizing conservation easements. 
- R2.3 Explore the use of bond issues, assessment districts, environmental partnerships and other methods for purchasing and managing hillside areas. 
- R2.4 Coordinate with other public agencies' plans and pursue partnerships with local and regional environmental and conservation organizations to locate and protect hillside open space areas. 

Objective R3: The preservation of open space as a public safety enhancement, and a component of sustainability. 

Policies:

- R3.1 Where possible, assist the Council for Watershed Health and promote community awareness of the Council's work. 
- R3.2 Ensure that wildland open space, including the areas of the City designated as High Fire Hazard Severity Zone, is left in its natural state with the exception of brush abatement for public safety in order to aid the City in fighting fires.
- R3.3 Ensure that natural open space within the High Fire Hazard Severity Zones remains undeveloped so as to mitigate the flood cycles that follow wild land fires in the natural open space.
- R3.4 Ensure the protection of natural open space so as to maintain it as a preventative measure against flooding, and as a means of capturing stormwater runoff for groundwater recharge. 

# Section Two:

## Co-Existence with Wildlife

### OVERVIEW OF EXISTING CONDITIONS

The entire City of Sierra Madre is a Wildlife Sanctuary, and there has been wildlife activity throughout the City. Mountain lion, bear, deer, fox, bobcat, coyote, raccoon, opossum, owl, hawk and other species have a well-documented presence in Sierra Madre. Their existence here is of ancient lineage. As people push more and more into surrounding wildlife habitats, displaced wildlife are fighting for survival. These animals have been forced into living with humans due to the loss of their own habitat, making Sierra Madre an urban/wildlife interface.

The City adopted Resolution 72-62 in 1972, designating Sierra Madre as a Wildlife Sanctuary. “The city, its officers and employees and the residents of the city of Sierra Madre are hereby encouraged to protect the birds, wildlife, natural habitats, food sources and other wildlife resources located within the city limits.” In 2000, the City adopted Ordinances 1177 and 1197 into the Municipal Code Development Standards, Section 17.48.130.H (“Prohibited Fencing. Spiked fencing shall be prohibited in all zones.”) In 2004, the City received an Education Award from the American Planning Association, Los Angeles section, for the pamphlet series “A Guide for Living with Wildlife in the Urban Landscape.”

### AREAS OF INTERACTION

~~The entire City of Sierra Madre is a Wildlife Sanctuary, and there has been wildlife activity throughout the City. However, there is a more intense level of interaction with a greater variety of species in the northern areas of the City adjacent to the hillsides. To facilitate educational outreach efforts, it would be beneficial to create a High Activity Wildlife Zone that mirrors the Fire Hazard Severity Zone.~~

### BENEFITS OF CO-EXISTENCE GOALS OF CO-EXISTENCE WITH WILDLIFE

1. ~~For residents: Safety, and a more profound quality of life. Safe co-existence for wildlife and residents.~~

~~2. Appreciation of the wildlife sanctuary within which we live.~~

~~2. For wildlife: Continued survival.~~

#### ~~GOAL OF CO-EXISTENCE WITH WILDLIFE~~

~~3. Wildlife protection in the City and its environs in support of the City Council's declaration of Sierra Madre as a Wildlife Sanctuary in 1972. 🍃~~

#### OBJECTIVES AND POLICIES

The City has established the following objectives and policies for the co-existence with wildlife in Sierra Madre. The implementation measures are contained in the Implementation Chapter at the end of the General Plan.

Objective R4: The promotion of a peaceful co-existence with wildlife through community education. 🍃

#### Policies:

R4.1 Raise awareness of Sierra Madre as an urban/wildlife interface where, as such, it is necessary for the residents to respect the wildlife, share space with wildlife, and to acknowledge the right of wildlife to pass within City limits undisturbed. 🍃

R4.2 Establish a committee dedicated to encouraging the peaceful co-existence with wildlife. 🍃

R4.3 Publicize and post signs that announce Resolution 72-62 which designates Sierra Madre as a Wildlife Sanctuary. 🍃

R4.4 Encourage wide availability and dissemination of materials teaching how to coexist with wildlife. 🍃

R4.5 Encourage the education of the public on how to “wild proof,” and on compliance with State laws prohibiting trapping, killing, or relocating wildlife. 🍃

Objective: R5 The enforcement and expansion of wildlife protections. 🍃

Policies:

R5.1 Actively enforce regulations prohibiting spiked iron fencing. 🍃

R5.2 Encourage residents to modify any existing structures to better accommodate safe passage of wildlife. 🍃

R5.3 Continue to include wildlife-resistant garbage containers for the High Activity Wildlife Zone in the waste disposal contract. (See R 15.6) 🍃

R5.4 Create a High Activity Wildlife Zone that mirrors the Fire Hazard Severity Zone.

# Section Three:

## Dark Sky

### OVERVIEW

Sierra Madre has a diversity of natural areas and landforms which contribute to its quality of life, economic well-being, and environmental beauty. Night time views of both the landscape and sky can be significantly degraded by excessive and unnecessary levels of light. Excessive lighting increases “skyglow” around urban areas, makes the man-made environment overly prominent, and results in visual clutter at night.

Dark Sky is defined as the starlit sky without interference of illumination from man-made sources. Sierra Madre recognizes the preservation of the night sky to perpetuate the view of the stars as a valuable community resource. Additionally, Sierra Madre acknowledges that Dark Sky is going to be an increasingly limited resource in the future. Therefore, it requires action in the present.

### SUMMARY OF DARK SKY GOALS

1. Protection of the starlit sky to avoid deterioration of the viewing of dark sky as it is a valuable resource. 
2. Preservation and maintenance of the view of night time skies and the visual character of natural areas, while allowing for night-time lighting levels appropriate to use, ~~and~~ location and community safety. 
3. Consideration of neighboring properties and the community as a whole with regard to exterior lighting through the reduction of negative light impacts in the design of new exterior lighting schemes .
4. Energy conservation.

## OBJECTIVES AND POLICIES

The City has established the following objectives and policies for Dark Sky in Sierra Madre. The implementation measures are contained in the Implementation Chapter at the end of the General Plan.

Objective R6: The reduction of light pollution, trespass, and unnecessary glare through the use of light shielding methods, and elimination of lighting that is misdirected, excessive, or unnecessary. 🍃

### Policies:

- R6.1            Require that all new development projects utilize light fixtures that shield the light source so that light is cast downward to avoid light spillage offsite or upward into the sky. 🍃
- R6.2            Discourage continuous all-night exterior lighting and encourage motion-sensored lighting. 🍃
- R6.3            Encourage the use of fixtures like the "shoe box" design that are capable of providing accurate light patterns, and can often be used for lighting without spilling onto the neighboring property and upward into the sky. 🍃

Objective R7: Minimize lighting use and intensity, and most efficient lighting technology ~~Conservation of energy and resources to the greatest extent possible.~~ 🍃

### Policies:

- R7.1            The City shall use the lowest wattage of lamp that is feasible and encourage the public to do the same. ~~The maximum wattage for most commercial applications should be 250 watts of high intensity discharge lighting.~~ 🍃

R7.2 The City shall, whenever possible, turn off the lights or use motion sensor controlled lighting and encourage the public to do the same. 🍃

R7.3 Investigate the possibility of having businesses turn off lights when they are closed. incorporation of curfews (i.e. turn lights off automatically after a certain hour when businesses close or traffic is minimal.) 🍃

Objective R8: The reasonable use of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambiance of the night. 🍃

Policies:

R8.1 Encourage outdoor lighting to be designed and installed in a manner that confines the direct lighting rays to the property upon which the lighting is installed so as to protect adjacent and nearby residential districts and public rights-of-way, and reduce “skyglow.” 🍃

R8.2 Lighting in and near residential areas shall be minimal and shielded to prevent nuisance glare. 🍃

R8.3 Lighting attached to single-family home structures should not exceed the height of the eave, and residential lighting pole height restrictions can be considered to control light trespass on adjacent properties and upward into the sky. 🍃

R8.4 Provide adequate illumination of all streets, alleys, and public areas.

Objective R 9: The promotion and education of the community regarding awareness of Dark Sky as a limited resource 🍃

Policy:

R9.1 Provide pamphlets from organizations dedicated to the preservation of the night sky. 🍃

# Section Four:

## Tree Preservation

### OVERVIEW OF EXISTING CONDITIONS

The City of Sierra Madre has demonstrated a strong commitment to tree preservation. Indigenous oak and other native ornamental trees are dominant features of the City's landscape. Not only do the City's many trees significantly enhance the aesthetics of the community, they improve air quality, act as buffers against the elements, and reduce noise. The Tree Preservation and Protection Ordinance, updated in February of 2014, establishes basic standards for preserving and protecting the City's public trees and the last vestiges of the City's landmark Oak, Sycamore, and Walnut trees located on undeveloped private property. The ordinance specifies the requirements for several identified species on private property and trees on public property in or adjacent to newly planned or renovated commercial and residential developments. The City has also established Energy, Environment and Natural Resources Commission (EENRC), which is a combination of members from a long-standing Tree Advisory Commission and a more recently created Green Committee. The EENRC is charged with assisting Public Works staff with fulfilling the new requirements in the updated Trees Preservation and Protection Ordinance, including reviews of certain development projects, public outreach, and carrying out the objectives and recommendations of the Sierra Madre Community Forest Management Plan completed in 2014, which provides guidance regarding City trees for the next 50 years.

### SUMMARY OF TREE PRESERVATION GOALS

1. Continued preservation and protection of existing trees. 
2. Increase of the City's community forest. 

### OBJECTIVES AND POLICIES

The City has established the following objectives and policies for tree preservation in Sierra Madre. The implementation measures

are contained in the Implementation Chapter at the end of the General Plan.

Objective R10: The maintenance and enhancement of the City's significant tree resources. 🍃

Policies:

- R10.1 Continue to develop public awareness and support for the City's tree ordinance. 🍃
- R10.2 Continue to develop tree preservation and protection measures. 🍃
- R10.3 Carry out the objectives and recommendations of the Community Forest Management Plan. 🍃
- R10.4 Continue to develop and update a recommended tree palette for parks and parkways. 🍃
- R10.5 Continue to update and maintain an inventory of trees located on City property including parkways, parks and other City-owned locations. 🍃
- R10.6 Continue to publish and update basic tree maintenance and care brochures for residents. 🍃
- R10.7 Continue to provide a ~~monthly~~ tree expert as needed to assist the City regarding tree removal, tree trimming, root pruning, identifying tree diseases, and grading that might affect trees. 🍃
- R10.8 Continue to monitor construction projects with regard to grading and construction effects on trees, tree removal and replacement. 🍃
- R10.9 Continue to monitor latest trends and research in the field of arboriculture to better manage the City's urban forest. 🍃
- R10.10 Promote the voluntary Legacy Tree Program. 🍃

Objective R11: The development of funding sources for the maintenance and enhancement of the tree preservation and planting program. 

Policies:

R11.1           Locate financial assistance for trimming and care of trees. 

R11.2           Solicit community participation in programs which are geared towards planting and maintaining City trees. 

# Section Five:

## Water Resources

### OVERVIEW OF EXISTING CONDITIONS

For many years, Sierra Madre was the only city in the San Gabriel Valley that relied entirely on groundwater for its water supply. On October 9, 2013 the city switched to a new source of water, imported from outside the Southern California region. The change in the water source was necessitated by drought-related low levels of water in the City's aquifer.

Until 2013, the primary source of water for the City was the Santa Anita Subarea (aka the Eastern Unit) of the Raymond Groundwater Basin. Sierra Madre shares this source of water with the City of Arcadia. Under the 1955 adjudication of the Raymond Basin, Sierra Madre has a decreed right to extract 1764 acre/feet (574,808,220 gallons) of water annually from the Eastern Unit. That decreed right was reduced to 940 acre/feet in 2014 at the direction of the Raymond Basin Management Board in response to historic low water levels in the Eastern Unit. In addition to the decreed right, the City is allowed credit for "replacement" or recharge water that is percolated into the Eastern Unit at the City's spreading basins located on East Grandview Avenue. The sources of the water used for groundwater recharge are Sierra Madre Creek, Santa Anita Canyon, and storm runoff collected off of East Grandview at Sycamore Place. The amount of water captured for recharge purposes varies depending on annual rainfall. The 50-year average rainfall is 23.03 inches, with the high being 59.01 inches in 2004-05, and the low being 7.23 inches in 1960-61 (Station 169Z data from Los Angeles County Department of Public Works.)

Secondary local sources of water are two horizontal wells or "tunnels" located at the upper end of Woodland Drive at the base of Little Santa Anita Dam. Water flows by gravity from the two tunnels, with the amount of water varying greatly depending on rainfall amounts and season of the year. Water from the west tunnel meets drinking water quality standards and is taken directly into the City's distribution system. East tunnel discharge does not meet drinking water quality standards, so it is

discharged to Little Santa Anita Creek where it is collected downstream and routed to the City's spreading basins. Annual Sierra Madre water production from the Eastern Unit averages approximately 2800 acre/feet, exceeding the City's decreed right. The difference between annual production and decreed right is covered by a combination of recharge water credits and flow from the West Tunnel. The Eastern Unit has experienced a decline in water levels over the past decade or more. While water levels fluctuate seasonally, the trend has been steadily downward. This indicates that more water is being taken from the Basin than is being replaced, regardless of the safeguards established under the Basin adjudication. The Eastern Unit is a finite source of water and one that must be restored and protected. That fact was underscored by the failure of one of the city's wells in the fall of 2013 due to low aquifer water levels and the determination that for preservation of the aquifer, the remaining three operational wells be taken off line.

The City of Sierra Madre has been granted a Fluoride Variance from the State Department of Health Services (DHS). Sierra Madre first requested the variance in the beginning of 1994. Sierra Madre pioneered the California Law Assembly Bill 2681 which authorizes the DHS of the State of California to grant water utilities a variance from the state's fluoride drinking water standard of 1.6 milligrams per liter mg/l. The variance allows water utilities to serve water which exceeds the state's drinking water standards but shall not exceed 3.0 mg/l, which is 75 percent of the primary maximum contaminant level M.C.L. of 4.0 mg/l established by the United States Environmental Protection Agency USEPA. However, the USEPA has set a secondary standard M.C.L. of 2.0 mg/l. With this variance, the Sierra Madre Water Department SMWD is able to operate its water system in a more economical manner and within the guidelines established by DHS.

On June 6, 1995, the DHS conducted a public hearing in the City of Sierra Madre to determine if there was substantial public opposition to the City receiving a variance from the California drinking water standard for fluoride. The hearing is required by the California Health and Safety Code. Of the approximately 30 people in attendance, sixteen presented comments and only one was not in favor of the variance. More than 100 written responses supported the variance. Therefore, the DHS found that there was

not substantial opposition to the City receiving the variance. It should be noted that due to the fluoride concentration of Sierra Madre's drinking water, additional fluoride products are not necessary for children. All water is chlorinated according to State water quality requirements prior to discharge into the water distribution system.

The local groundwater sources for Sierra Madre provided very high quality potable water for the city; the community has been recognized for its good water. The City is desirous of returning to those local sources as soon as aquifer conditions permit.

A third source of water for the City and the source of water that began to be utilized by the City in 2013 is the San Gabriel Valley Municipal Water District SGVMWD. The District is a State water contractor much like Metropolitan Water District. The other three member agencies of SGVMWD are Azusa, Alhambra and Monterey Park. The District imports untreated water from the Bay delta via the State Water Project and its own pipeline which runs from Devil's Canyon in San Bernardino County to an outlet in Azusa Canyon. SGVMWD water is used for groundwater in the Main San Gabriel Groundwater Basin ~~Main Basin~~. Sierra Madre may at any time request to purchase water from SGVMWD, which is then credited to Sierra Madre for extraction from the Main Basin.

The City of Sierra Madre Public Works Department operates the City's own water production and distribution system. Water is produced from 4 wells located in the vicinity of Sierra Vista Park. Water from the wells flows directly into the Granulated Activated Charcoal treatment system which was constructed in 2006. The water then flows into a small reservoir/pumping forebay at the City maintenance yard and is pumped from there directly and indirectly to the City's eight reservoirs; the combined storage capacity of the reservoirs is 7.46 million gallons. From the reservoirs, the water is distributed to all residential, commercial and institutional customers via over 46 miles of pipeline. Water is moved through the distribution pipeline system by gravity to over 3700 individual metered water services.

The City's water system incorporates three interconnections with the water systems of other agencies. On the west, there are two 4 inch unidirectional flow interconnections with the City of

Pasadena water system. The northerly interconnection on Michillinda Avenue flows east to west, for Sierra Madre to supply water to Pasadena. The southerly interconnection flows west to east; from this location Sierra Madre can request to draw water from Pasadena. These connections are suitable for use only in extreme emergency, as their small diameter and location within system pressure zones will not provide a significant flow of water, and because of differences in the treatment processes of the two cities' water, if the two waters are mixed in either system, a harmless discoloration results. The third system connection is a twelve-inch pipeline along East Sierra Madre Boulevard linking Sierra Madre with the water system of the City of Arcadia. It is via this pipeline that Sierra Madre can indirectly access its SGVMWD source of water. Water obtained from this source is purchased from SGVMWD and incurs additional costs in the form of Watermaster fees and City of Arcadia production and pumping costs. As a result of the relatively high cost of this water, it is used only in emergencies, and if it is available from Arcadia. Additionally, this source of water is limited in quantity and cannot fulfill the entire needs (demand) of the eCity.

The fourth system interconnection was constructed in 2012/13 by San Gabriel Valley Municipal Water District. This is a direct connection between the city's water system and the Metropolitan Water District Foothill Feeder which crosses Sierra Madre along Grandview Avenue. This interconnection allows the eCity to take potable water directly into its distribution system in an amount equivalent to the entire water demand of the community. This interconnection began to be used in October 2013.

Wastewater treatment at the tertiary level provides water that is considered safe for human consumption. However, the state of California has not approved the use of reclaimed water for human consumption. Reclaimed water is only allowed for specific approved uses, such as irrigation or limited groundwater recharge. The nearest water reclamation facilities are located in Whittier Narrows and in the City of Glendale. Reclaimed water transmission mains from those facilities end miles from Sierra Madre's corporate boundary. Due to the high cost of extending the transmission pipelines, the cost of construction of a second, separate distribution system throughout Sierra Madre, and the limited uses of reclaimed water there has not been a significant effort to incorporate reclaimed water into the City's water system.

Water conservation and reduction of water use is a primary means of preserving the City's limited groundwater supply. In order to encourage water conservation, the City has undertaken a number of efforts to educate the community, working closely with SGVMWD distributing free low-flush replacement toilets, and passing out water conservation-awareness materials at community events. Chapter 13.24 of the Sierra Madre Municipal Code is entitled "Mandatory Water Conservation Plan." This portion of the Code was adopted by the City Council in 1991 as Ordinance 1073. The ordinance outlines a six-phase water conservation plan, each phase to be enacted by City Council resolution. Phase 1 of that conservation plan has been in place since the adoption of Resolution 04-086 in October 2004. Six specific Phase 1 water restrictions are listed in SMMC 13.24.060. California Senate Bill 7 Steinberg, 2009 requires every water agency to reduce per capita water use by 1 percent ~~0%~~ on or before December 31, 2015 and by a total of 20 percent ~~%~~ by December 31, 2020. According to the City's 2010 Urban Water Management Plan, the 10 year baseline daily per capita water use for Sierra Madre is 262 gallons per capita per day GPCD). The 2015 goal is 236 GPCD and the 2020 goal is 210 GPCD.

### **National Pollutant Discharge Elimination System (NPDES)**

The Federal Water Pollution Control Act was passed in 1948 and was significantly expanded in 1972. In 1977, it became known as the Federal Clean Water Act, and it established the National Pollutant Discharge Elimination System (NPDES) permit program to control water pollution by regulating point sources that discharge pollutants into waters of the United States. The Federal Clean Water Act requires that municipalities obtain an NPDES permit to regulate any discharges (i.e. stormwater) going directly into surface waters.

In 1969, the State of California enacted the Porter-Cologne Water Quality Control Act establishing the State Water Resources Control Board and regional Boards, including the Los Angeles Regional Water Quality Control Board that continues to have regulatory authority over the City of Sierra Madre. The City has managed to meet the strict requirements of the 2001 NPDES permit. However, the most recent NPDES permit was adopted on November 8, 2012 (Permit Order No. r4-2012-0175) and the City is facing many challenges in meeting the new requirements.

The City of Sierra Madre discharges stormwater into the Los Angeles River Watershed. There are three main outflows from the borders of the City. The eastern Santa Anita wash discharges into Peck Park Lake and then to the Rio Hondo tributary of Reach 2 of the Los Angeles River; the center and western channels discharge to the Rio Hondo below the Peck Park Lake via the Arcadia Wash.

When a particular body of water is determined to exceed acceptable limits of a particular pollutant, it is prescribed a Total Daily Maximum Loads (TMDL) regulation. Sierra Madre is collectively and independently responsible for many additional TDMLs with the adoption of the new permit, including Los Angeles River Metals, Los Angeles River Trash, Los Angeles River Bacteria, and Peck Road Lake Toxics.

In order to meet the requirements of the new NPDES permit, the City of Sierra Madre joined with the Cities of Arcadia, Monrovia, Azusa, Bradbury, Duarte, and Los Angeles County Public Works/Flood Control District to form the Upper Rio Hondo, San Gabriel River Watershed Management Group. The Group collectively began to develop an Enhanced Watershed Management Plan along with a Coordinated Integrated Monitoring Program. The Plan will be finalized in June of 2015 and provide for a regional framework to address watershed quality challenges and requirements of the new NPDES permit.

Each of the members of the Group have also taken proactive “early actions” to meet water quality objectives by drafting Low Impact Development Ordinances and “Green Streets” policies.

#### SUMMARY OF WATER PRESERVATION GOALS

1. Conservation of the City's water resources. 
2. High quality drinking water. 
3. Growth that is linked to the availability of water. 
4. Use of local sources of groundwater rather than imported water. 

5. Meet or exceed water quality objectives.

OBJECTIVES AND POLICIES

Objective R12: The optimization of the use of water resources.



Policies:

R12.1 Protect settling basins for water collection for the purposes of groundwater recharge. 

R12.2 Actively follow state legislative and policy actions to ensure that Sierra Madre is able to use all of its water through the conservation of lands for groundwater recharge and storm water management. 

Objective R13: Maintenance of the City's water treatment and delivery system. 

Policies:

R13.1 Charge water usage fees which anticipate capital improvement needs. 

R13.2 Maintain a capital plan for the maintenance of the City's water facilities. 

Objective R14: Adequate water availability for future growth in the City. 

Policies:

R14.1 Maintain an urban water management plan. 

R14.2 Evaluate water availability in conjunction with public and private development projects. 

Objective R15: The conservation of water during times of drought. 

Policies:

R15.1 Prohibit washing of concrete surfaces such as sidewalks and driveways with a hose. 

R15.2 Regulate water used for decorative fountains. 

R15.3 Require restaurants to limit use of drinking water. 

R15.4 Restrict hours of water usage for landscape and irrigation. 

R15.5 Explore other methods or innovations to conserve water during times of drought and implement as necessary.

Objective R16: The elimination of the use of imported water.



Policies:

R16.1 Work with Raymond Basin Management Board (Watermaster) to improve management of the Eastern Unit of the Raymond Basin. 

R16.2 Collaborate with other Raymond Basin water producers, especially the City of Arcadia, to eliminate the overdraft of the Raymond Basin. 

Objective R17: The development of a comprehensive National Pollutant Discharge Elimination System program that meets or exceeds State standards as they are revised from time to time.

Policies:

- R17.1 Diligently carry out minimum control measures and source reduction programs as required and/or is beneficial to water quality. 🍃
- R17.2 Continue to identify programs or projects with multiple benefits with water quality, water retention, recreation, flood safety, and aesthetics as priorities. 🍃
- R17.3 Continue to work with regional partners to increase efficiency, effectiveness, and cost savings as priorities. 🍃
- R17.4 Participate in the discussion regarding emerging regulatory National Pollutant Discharge Elimination System topics, and provide comments as necessary. 🍃
- R17.5 Develop public education and outreach programs with regard to specific City and regional topics. 🍃

# Section Six:

## Waste Management/Recycling

### OVERVIEW OF EXISTING CONDITIONS

The City requires all residential and business properties to have trash collection services. The City has an exclusive franchise agreement with a contractor to provide collection and recycling services. No other haulers are authorized with the exception of construction projects that elect to file a Waste Management Plan and provide a performance bond. The contractor provides residential customers with three separate containers for waste separation: one for trash, one for commingled recyclables, and one for green waste and organic yard materials. Residents pay rates based only on the size and number of black trash cans, therefore incentivizing the use of recycling and green waste containers. Multi-family and commercial land uses are typically provided with bin service. The size and number of bins are coordinated through the contractor and the material collected in these bins are separated into trash and recycling material at a Material Recovery Facility. Also included in the contract are opportunities for residents to dispose of bulky items at no charge up to four times per year. The contractor also supplies extra services for community events such as the annual Wistaria Festival and Friends of the Library Art Fair. The contractor does its own billing and customer service relations, with City staff serving as a liaison and occasional arbitrator between the contractor and the residents of Sierra Madre.

The City contracts for landscape services to collect refuse placed in public trash receptacles. These are located primarily in the downtown districts, parks, and at bus stops. The trash is collected daily and taken to the City Yards to be picked up by waste disposal contractor.

Sierra Madre is included in the Scholl Canyon Wasteshed so the City's refuse goes to Scholl Canyon Landfill. This is a major advantage to the City as capacity of this landfill is many years away from being reached.

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to prepare a Sources Reduction and Recycling Element (SRRE) in its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion requirement of 50 percent by and after the year 2000. The City of Sierra Madre has included this requirement in the contract with its contractor. It has also joined the Los Angeles Regional Agency with 17 Southern California cities, including the City of Los Angeles, to work cooperatively to increase diversion rates to the maximum extent possible. Public recycling containers are provided at Memorial Park, Sierra Vista Park, and a large roll-off bin is available to residents for recycling at the west side of Sierra Vista Park below the Sierra Madre Rose Float building. City staff provides recycling information outreach through various communication tools throughout the year, including a brochure available at City facilities, and also provides outreach at many City events, such as the Wistaria Festival and Public Works Open House. Diversion rates for the City of Sierra Madre have been at about 57 percent annually for the past five years, with the exception of a period following the 2012 windstorm event which caused a drop to approximately 54 percent.

Resolution 98-06 adopted in December of 1997 created the City of Sierra Madre's Household Hazardous Waste Element. This document outlined strategies and planning to eliminate household hazardous wastes from the City's waste stream. Sierra Madre residents are provided with opportunities to safely dispose of common household goods that are not allowed into the traditional waste stream. Items such as light bulbs, batteries, used oil, electronic waste, and certain solvents and cleaners are dangerous to the environment and prohibited from landfills. The City works closely with the County of Los Angeles to create and maintain programs to collect and safely dispose of such waste. Once a year, the City hosts a County-sponsored Household Hazardous Waste Roundup at the Mariposa Parking Lot. The event accepts the hazardous waste at no charge to the resident. A calendar of such events that are being hosted by nearby cities is maintained and available to residents, and the County's website is also a source for such reference.

In addition to roundup events, the City collects used batteries via a program with County of Los Angeles Libraries, and three local businesses have also signed up to be collection centers for used batteries through a San Gabriel Valley Council of Governments program. Used sharps needles, syringes, lancets, etc. are also considered hazardous waste, and the City provides approved containers and information on locations where these can be safely disposed. Finally, the City has partnered with the Cities of Bradbury and Monrovia to administer a used oil collection grant from CalRecycle to provide and publicize certified used oil collection centers in the area.

## SUMMARY OF WASTE MANAGEMENT AND RECYCLING GOALS

1. A higher level of recycling of materials by individuals, businesses, and City government. 
2. A healthy and clean City. 

## OBJECTIVES AND POLICIES

The City has established the following objectives and policies for waste management and recycling in Sierra Madre. The implementation measures are contained in the Implementation Chapter at the end of the General Plan.

Objective R18: Adequate trash collection services for Sierra Madre residents and businesses. 
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### Policies:

- |       |   |
|-------|---|
| R18.1 | Maintain a contract with a waste hauler to provide service to residences, businesses, institutions and City government facilities for trash collection.             |
| R18.2 | Maintain a contract with a single waste hauler to provide trash collection services to commercial businesses, thereby simplifying the commercial recycling program.  |

R18.3 Continue to provide opportunities for the disposal of large household items. 🍃

Objective R19: Improvement of the waste diversion and recycling programs already in place. 🍃

Policies:

R19.1 Require the waste collection provider to provide recycling bins to all customers in the City, including in the business district. Cardboard should be collected at sites in the business district. 🍃

R19.2 Continue the collection of new types of plastic. 🍃

R19.3 Continue to enforce the Construction and Demolition Ordinance to require builders to separate and recycle discarded building materials, including lumber, metal, cement, etc. 🍃

R19.4 City offices shall purchase and use post-consumer and recycled products to the extent feasible. 🍃

R19.5 Promote green waste and recycling programs such as “green and clean” which increase the usage of green waste for compost and reduces the amount of green waste exported. 🍃

R19.6 ~~Actively pursue a contract with waste disposal agencies for wild proof garbage containers in the High Activity Wildlife Zone (See R-5.3)~~ Continue to include wildlife-resistant garbage containers for the High Activity Wildlife Zone in the waste disposal contract. 🍃

Objective R20: The proper disposal of toxic and hazardous waste. 🍃

Policies:

R20.1 Continue to work with Los Angeles County Department of Public Works to provide a free household hazardous waste pick-up at least once a year. 

R20.2 Continue to provide information to community members regarding free household hazardous waste pick-up sponsored by Los Angeles County Department of Public Works. 

Objective R21: Provision of adequate waste disposal systems to meet the demands of existing and new development. 

Policy:

R21.1 Continue to provide for adequate trash removal, installation and maintenance of trash receptacles on street and in parks, and regular street sweeping. 

# Section Seven:

## Air Quality

### OVERVIEW OF EXISTING CONDITIONS

The City of Sierra Madre's air shed is part of the South Coast Air Basin, historically one of the most polluted in the nation. The area is called a basin because its geographical formation is that of a depression, with the surrounding mountains containing the air and the pollutants in the valleys and basin below. The basin contains pollutants generated by dense population centers, heavy vehicle traffic and industry. These conditions have led to some of the earliest and strictest controls on land use and vehicles.

Atmospheric conditions also affect the Southern California basin. Most important of these are the sea breezes from the Pacific Ocean that push pollutants inland where the mountains act as a barrier to the horizontal dispersion of the pollutants. Compounding this condition is an inversion layer which acts as a lid, preventing the pollutants from escaping upward.

Sources of pollution can be categorized into short term and long term impacts. Short term air pollutants result from equipment and dust generated during grading and site preparation. The Environmental Protection Agency estimates that construction activities for a large development project can add 1.2 tons of fugitive dust per acre of soil distributed per month of activity.

Long term impacts are generated by pollutants which produce poor ambient air quality smog. In the South Coast Air Basin comprised of Los Angeles, Orange, Riverside, and San Bernardino Counties, two components interact to produce the high pollution concentrations and smog: emissions and atmospheric conditions. The South Coast Air Quality Management District (SCAQMD) refers to emissions as either stationary or mobile. Mobile sources refers to motor vehicles and these create approximately 90 per cent of the basin's air problem. Stationary sources refer to a fixed point such as a factory.

Air quality controls in California are governed by the federal Clean Air Act of 1990 and by the California Health and Safety Code, particularly the California Clean Air Act of 1989. The federal and state Clean Air Acts require the preparation of a plan to reduce air pollution to healthful levels. The Southern California Association of Governments (SCAG) and the SCAQMD are charged with preparing the Air Quality Management Plan (AQMP) every three to five years, the most recent of which was adopted by SCAQMD in 2007 and by the Air Resources Board (ARB) that same year.

The Air Quality Management Plan is designed to comply with the provisions of the 1988 Clean Air Act and the 1990 federal Clean Air Act Amendments, to accommodate growth, to reduce the high levels of pollutants within the Basin, and to meet federal standards for all pollutants by 2014. Principal controls concepts for improving the Basin's air quality include: extensive use of clean fuels, transportation control measures, market incentives, and facility permitting.

Air quality standards are health based and are set at levels to protect the most sensitive members of the population. There is mounting evidence of the negative health effects of long term exposure to air pollution especially on adults who are ill or have long term respiratory problems, and in young children whose lungs are not fully developed. Facilities which house persons who are potentially sensitive to air pollution are called "sensitive receptors." In Sierra Madre, sensitive receptors have been identified as pre-schools, schools, ~~and~~ board and care facilities, and the assisted living facility.

The main source of air pollutants in Sierra Madre are emissions from motor vehicles. Most pollution in Sierra Madre is generated by cold engine starts and in the first few miles of travel. There are also some light manufacturing uses, such as a furniture manufacturer, welder, and dry cleaners.

In addition, second-hand smoke has been proven to be harmful. This is particularly harmful to those living in close proximity to smokers.

## AIR QUALITY GOAL

Air quality that ~~contributes to is compatible with~~ health, well-being, and the enjoyment of life. 

## OBJECTIVES AND POLICIES

The City has established the following objectives and policies for air quality in Sierra Madre. The implementation measures are contained in the Implementation Chapter at the end of the General Plan.

Objective R22: The attainment of safe air standards. 

### Policies:

- R22.1 Cooperate with the South Coast Air Quality Management District and incorporate the provisions of the Air Quality Management Plan. 
- R22.2 Prohibit the development of land uses and land use practices which would contribute significantly to poor air quality. 
- R22.3 Establish controls and monitor uses in the City which contain operations or materials characterized by air pollutants which individually or cumulatively could significantly add to the air basin's degradation (e.g., furniture manufacturers using paints and finishes, automobile repair, printing, and reproduction, and dry cleaners). 
- R22.4 Encourage and participate in regional initiatives and programs to improve the South Coast Air Basin's air quality. 
- R22.5 Publicize the incentives offered by the Southern California Air Quality Management District, such as leaf blower and lawnmower exchanges. 

Objective R23: A reduction in the amount of vehicular emissions in Sierra Madre. 

Policies:

- R23.1 Establish a transportation system management program to encourage the use of transit, carpooling, shuttles and other transportation options to reduce vehicle miles traveled and vehicle trips. 
- R23.2 Encourage public and school bus owners to convert to lower emission burning fuel, which is part of the Southern California Air Quality Management District Plan. 
- R23.3 Continue to purchase automobiles and other vehicles that use zero or low emission fuels for the City's fleet of vehicles. 
- R23.4 Allow for local job opportunities including home based businesses and telecommuting in Sierra Madre. 
- R23.5 Provide opportunities through appropriate zoning for the development of residential units in concert with commercial uses. 
- R23.6 Provide and enhance local transit service to reduce personal vehicle trips. 
- R23.7 Maintain links to the MTA Gold Line light rail system. 
- R23.8 Pursue funding sources for facilities and programs linked to regional transit. 

Objective R24: A reduction in fugitive dust generated from the use of gardening equipment and construction activity. 

Policies:

- R24.1 Continue to review guidelines from time to time regarding the use of gas -powered lawn equipment, and consider tightening the restrictions on the type of equipment, hours and duration of operation. 
- R24.2 Require dust abatement measures during grading and construction operations. This may include use of reclaimed water or other methods to control fugitive dust. 
- R24.3 Develop and enforce a fugitive dust control ordinance that regulates the following: visible dust emissions, soil stabilization, the carrying and tracking of dirt offsite, unpaved access and haul roads, storage piles and bulk materials, demolition, and dust control plans; the ordinance should include penalties to encourage compliance.

Objective R25: A reduction of harmful secondhand smoke in living areas. 

Policy:

- R25.1: Consider developing an ordinance to address second-hand smoke and other indoor air pollutants in multiple-family dwelling units. 