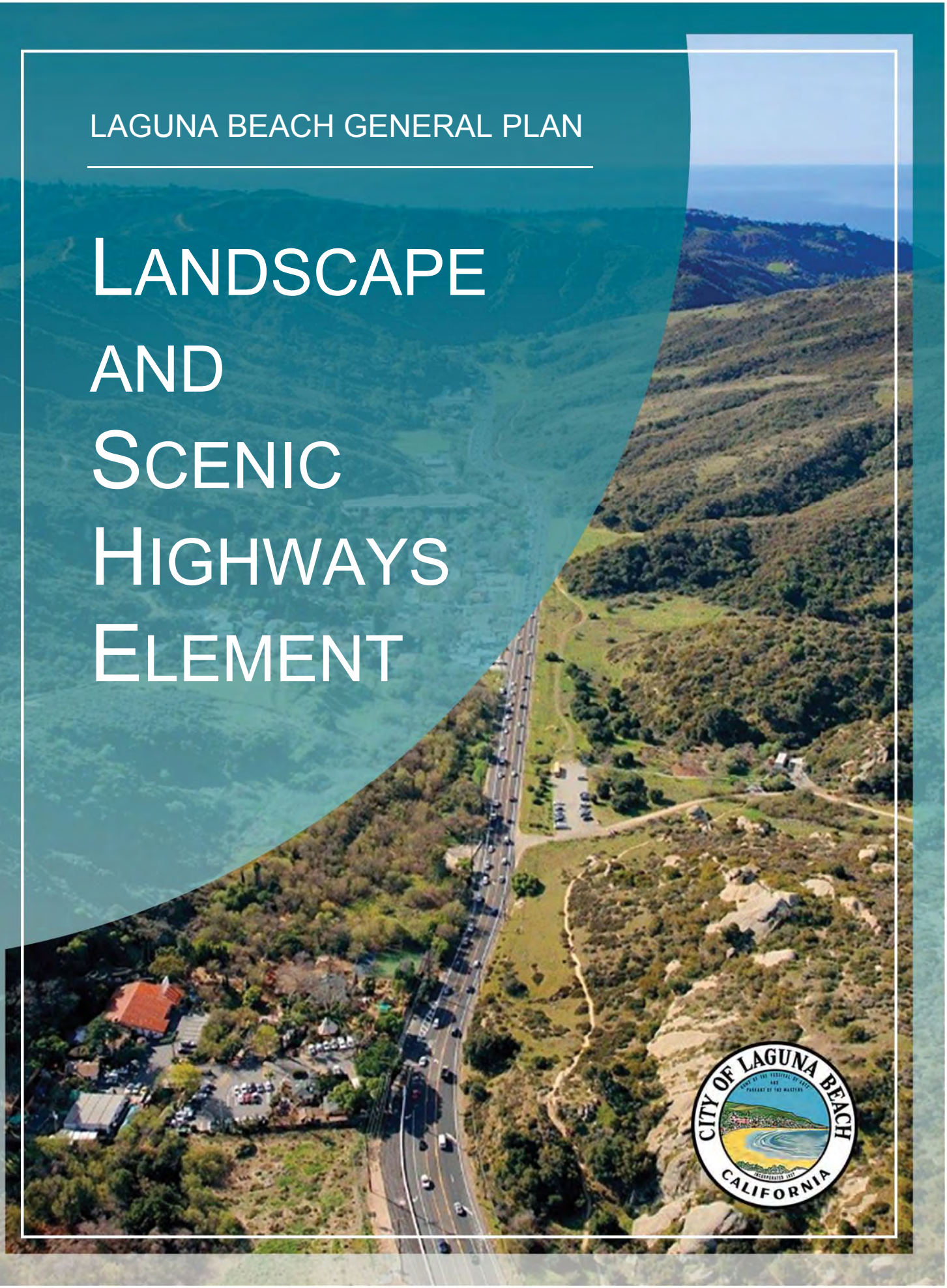
LAGUNA BEACH GENERAL PLAN

LANDSCAPE AND SCENIC HIGHWAYS ELEMENT



CITY OF LAGUNA BEACH

LANDSCAPE AND SCENIC HIGHWAYS ELEMENT

AMENDED NOVEMBER 13, 2018

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CITY OF LAGUNA BEACH

LANDSCAPE AND SCENIC HIGHWAYS ELEMENT

ADOPTED BY CITY COUNCIL ON NOVEMBER 13, 2018

COVER PHOTO BY ROBERT HANSEN

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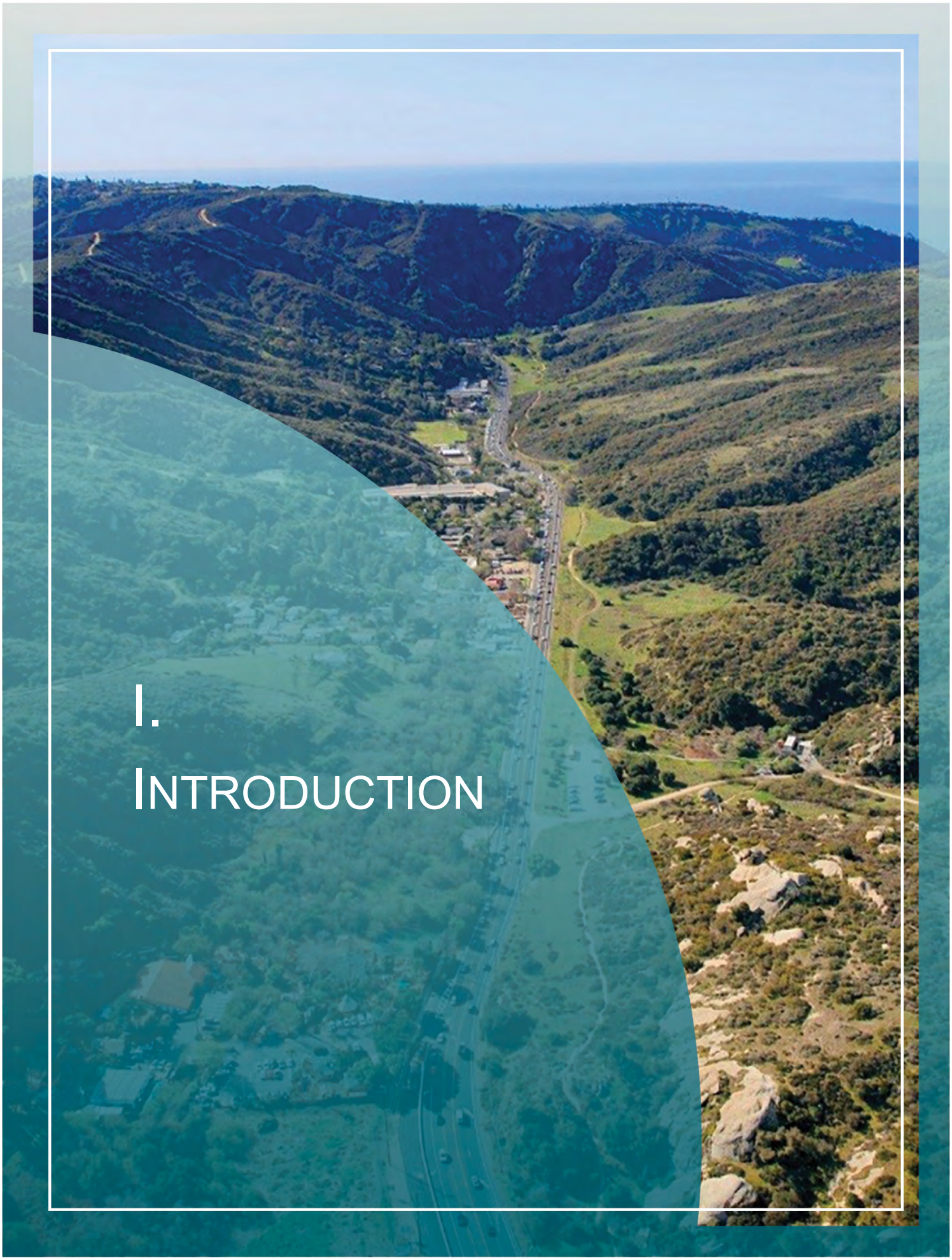

I.

INTRODUCTION

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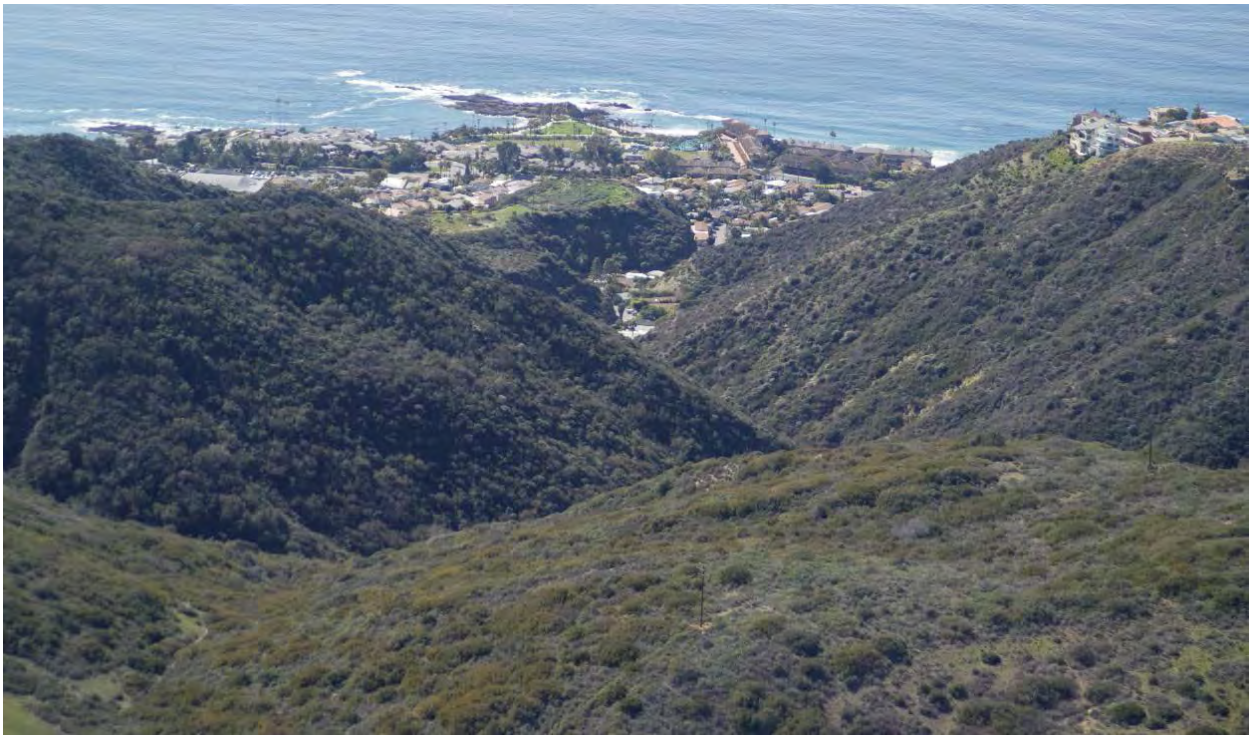
I. INTRODUCTION

VISION

Laguna Beach, with its spectacular natural setting, diverse neighborhoods, artistic heritage, and involved citizenry, is in a solid position to set a course for an exceptional future—towards a city that retains its village charm and diversity; and one that is more beautiful, accessible, and sustainable.

The people of Laguna Beach expressed their views regarding the future image of the community in the Vision Laguna 2030 Final Report and Strategic Plan (2001):

> *We will preserve and enhance the City's identity as a small town with village charm and historic character, an art colony, and a beach community. We will be a safe and enjoyable community to walk and bicycle with convenient transit and smooth traffic flow. We will protect, expand, and preserve the beautiful hillsides, beaches, and ocean and weave environmental sustainability throughout the fabric of Laguna Beach life now and for future generations.*



Robert Hansen photo

This Laguna Beach Landscape and Scenic Highways Element (the "LSHE") is a key to achieving that vision. The Vision Laguna themes are reiterated and interwoven in the public comments and professional guidance that have inspired the preparation of the LSHE. The LSHE's programs point toward a future Laguna Beach that retains its village charm and diversity, while making the town more beautiful, more accessible for pedestrians, bicycle, and transit riders, and increasingly more sustainable by conserving resources. The Following are vision statements for a future Laguna Beach accomplished through the enhancements and improvements recommended in the LSHE:

1. The image of the city is strongly tied to its scenic highways and view corridors, which provide visual experiences for all modes of travelers. Laguna Canyon Road and El Toro Road reveal the pastoral, natural preserved open space of the outer Laguna Canyon beyond developed areas, while improved bicycle and rustic pedestrian trail connections add to the appreciation of the landscape. In the inner Canyon, south of El Toro Road, Laguna Canyon Creek is revitalized with native plantings restoring habitat, buffering and embellishing adjacent structures. Laguna Canyon Road is enhanced with an oak and sycamore woodland landscape, with stately trees that arch over and shade the roadway. Medians with native and drought-tolerant ground covers and shrubs complement the surrounding ridgelines and dramatic outcroppings, producing a rustic and serene entrance to the city.

2. Coast Highway provides diverse view corridors of the hills and coast, with architectural elements and street trees, shrubbery, and planted medians adding color and foliage. Continuous sidewalks and bicycle routes increase safety along the length of the city. High quality street furniture, bus shelters, signage, and lighting compatible with their surroundings enhance the comfort of travelers. The City has the maintenance responsibility for landscape improvement within the public right-of-way along Laguna Canyon Road and Coast Highway, while as the owner of the right-of-way Caltrans retains responsible for maintenance and improvement of the streets. Because these right-of-ways are owned by Caltrans and are not under the City's direct control, there may be limitations in implementing the policies and recommendations in the Landscape and Scenic Highways Element.

3. In the landscape of the downtown, commercial districts and neighborhoods complement the diverse village character of the built environment. It continues to feature the shading and sheltering mature trees that are our heritage, complemented by more recent plantings that are compatible with the mature landscape and with the village character. Ocean views continue to be considered and provided for while allowing for softening and punctuation with significant trees. The creeks and canyons that thread through residential areas are restored with native vegetation, providing interconnections for wildlife and residents. Trails and sidewalk

routes allow for comfortable and safe walking and biking through neighborhoods to access community destinations.

4. Parks and community gardens beautify and provide settings for neighbors to meet, play, work together and build friendships. The distinctive characteristics of each neighborhood are reinforced and improved as individual landscape decisions are made. Individual projects are designed to fit within their neighborhood context, allowing for individuality and continuation of the eclectic mix that is a characteristic of Laguna's landscape.

5. Landscape choices are tailored to sustainability criteria, producing designs that are adapted to the setting. Slope stability is protected with compatible deep-rooted plantings that require minimal irrigation. The interface between neighborhoods and open space respects the native vegetation while reducing fuel volumes to promote fire safety. Coastline and canyon landscapes are enhanced, overhead wires are undergrounded or made unobtrusive, parkways and medians embellished with new plantings.

6. Bluffs are preserved, restored and naturally planted. Creek beds and lagoons are restored where feasible; the sides of creek channels are softened and beautified with planting.

7. Overall, Laguna Beach retains the landscape qualities valued by the community, and beautifies them while improving safety and access, all in a sustainable manner.

Tony Bisson photo

HISTORIC AMERICAN LANDSCAPE SURVEY (HALS)

Laguna Beach and its Greenbelt have been recognized as a Historic American Landscape by the National Park Service. Documents supporting the recognition are permanently housed at the Library of Congress. The City's beautiful and dramatic natural setting is intricately related to the community and artistic tradition that grew from it. The area's geological formations, and its steep and undulating topography, led to it being excluded from adjacent ranchos. This left the area that would become Laguna Beach available for homesteading beginning in 1870. The rectangular lines of the 39 small homestead claims later influenced how much of the city is laid out. The scenic landscape, natural vegetation, and coastal location attracted artists around 1900. The artistic influence and the character of the landscape shaped a unique community. Laguna's history, including isolation from other communities, its role as art colony, and its leadership in environmental preservation all stem from the characteristics essential role of the landscape historically, and its continued importance in decision making for the future.

CITIZEN PARTICIPATION

Citizen participation in the LSHE was encouraged through the City's website, surveys, and public meetings. A dedicated LSHE web page provided background information and an interactive process for public input outside workshops or formal hearings. Press releases to local media increased the visibility of the process. An online community survey sought comments on priorities with regard to landscape and scenic highways matters.

Along with citizen input, educational workshops to explain the process has also been a key component in the development of the LSHE. Two public workshops were held. See Appendix IV in the Landscape and Scenic Highways Resource Document (LSHRD) for summaries of the content of the expert panel presentations, public comment, and the survey.

The Planning Commission held public hearings on July 26, 2017, January 17, 2018, and February 21, 2018 to review the Draft Landscape and Scenic Highways Element. The City Council reviewed the Landscape and Scenic Highways Element on April 10, 2018 and approved on November 13, 2018, via Resolution 18.073.

PURPOSE

The purpose of the LSHE is to provide policy direction and implementation actions that will preserve, enhance, and sustain landscapes and scenic corridors essential to the unique character of Laguna Beach. The document is comprised of Scenic Corridor policies, which focus on landscaping on public property and within the public right-of-way, and Neighborhood Landscape policies, which apply primarily to new landscaping on private land. The LSHE provides a framework for policies and actions to be considered and acted upon in a comprehensive, coordinated manner for a range of topics related to the Laguna Beach landscape. The LSHE focuses on sustainability, preservation, and improvement of the City's distinct neighborhoods, natural open space, highways—Coast Highway, Laguna Canyon Road, and El Toro Road; other streetscapes and parks; heritage trees and landscapes; public safety related to fire hazards, and landform stability.

The LSHE is a "community design" policy document developed under the guidance of California General Plan law and guidelines. The LSHE evaluates most aspects of community design except for infrastructure, architecture, transportation/circulation, and parking, although all of these components are considered in relation to landscaping. The public outreach conducted in relation to the LSHE highlighted the need for an integrated and comprehensive approach to landscape and scenic highway policy, with sustainability principles playing a lead role.

HISTORY

In 1975, portions of Coast Highway and Laguna Canyon Road now within the City of Laguna Beach were under Orange County jurisdiction. The County designated portions of these roads as official County Scenic Highways. However, the City of Laguna Beach did not complete the process for scenic highway designation with the State of California.

Also in 1975, the City adopted a Scenic Highways Element that was intended to lead to the designation of Coast Highway and Laguna Canyon Road as scenic highways by the State of California. The 1975 document was a State mandatory element that included a study of scenic resources, potential and goal statements, and a recommendation to a scenic corridor plan. Later, the State removed scenic highways as a mandatory element and allowed for optional adoption by local jurisdictions.

By the early 1990s, the City was confronted with State landscape-related water conservation requirements, the need for specific guidelines for design review of landscape plans, issues related to choice of street trees, preservation of trees, and view controversies. In 1993, the City Council

appointed a Landscape Task Force to take a comprehensive look at landscape issues and to prepare a Landscape and Scenic Highways Element. The Task Force began its work, but the October 1993 fire disaster affected both the physical landscape, and community perspectives and priorities. The project was put on hold for six months while the town embarked on disaster recovery. When the project resumed, greater emphasis was placed on landscape planning in relation to fire.

After review, the Council decided not to make the Landscape and Scenic Highways document an Element of the General Plan. Instead, in 1995, the City adopted a modified version as the Landscape and Scenic Highways Resource Document. The Resource Document contains descriptions of the City's landscapes and scenic highways, policies and specific recommendations, and has served as a useful guide.

In 2012, the City adopted an updated Land Use Element with the following Action Item: *"Update the City's Landscape and Scenic Highways Resources Document and adopt it as an Element of the General Plan."* The City adopted this policy recognizing the defining role its distinctive landscapes and regional roadways play in the overall quality of life in the town. This planning process began in August of 2013.

TIME FRAME

The LSHE's approximate 20-year effective period allows for consistent long-term planning and adequate time to feasibly implement policies and actions. This comprehensive approach is intended to coordinate the various aspects of community design and planning and to further the vision and goal of a more sustainable Laguna Beach in the years ahead. The approximate 20-year period provides for implementation with short, medium, and long-term time frames. "Short-term" actions cover approximately three years after adoption; "medium-term" approximately eight years; and "long-term" for the remaining effective period of the LSHE.

RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS, STATE LAWS AND GUIDELINES

The LSHE coordinates and is consistent with all other City general plan elements, most notably the Land Use, Open Space and Conservation, Circulation, and Safety Elements. Along with State general plan law and guidelines, California land use planning at the local level must also consider two statewide statutes, AB 32 and SB 375, that were adopted in the mid-2000s.

AB 32, the California Global Warming Solutions Act of 2006, requires reductions of greenhouse gas (GHG) emissions to 1990 levels by 2020 — a reduction of approximately 15 percent below emissions expected under a "business as usual scenario. Full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, providing options for cleaner transportation, and reducing waste. SB 32, passed in 2016, raised GHG standards even further. All of these issues are relevant to the LSHE.

SB 375 prompts California regions to work together to reduce greenhouse gas (GHG) emissions from cars and light trucks. This law seeks to achieve this objective by requiring integration of planning processes for transportation, land use, and housing. The plans emerging from this process are intended to create more efficient communities that provide residents with alternatives to using single occupant vehicles.

The LSHE takes into account these legal requirements relevant to its scope, and advances statewide (and local) goal implementation either directly or indirectly by:

- Articulating an integrated landscape sustainability policy program designed, among other things, to optimize GHG reduction through a variety of mechanisms.
- Developing scenic highways policies and corridor protection programs that will result in complete streets, reducing the need to rely on the automobile for local transportation.
- Providing for improved efficiency of energy, water, and materials in the landscape, which reduces the use of fossil fuels needed for water conveyance, transportation, materials manufacturing, and maintenance.

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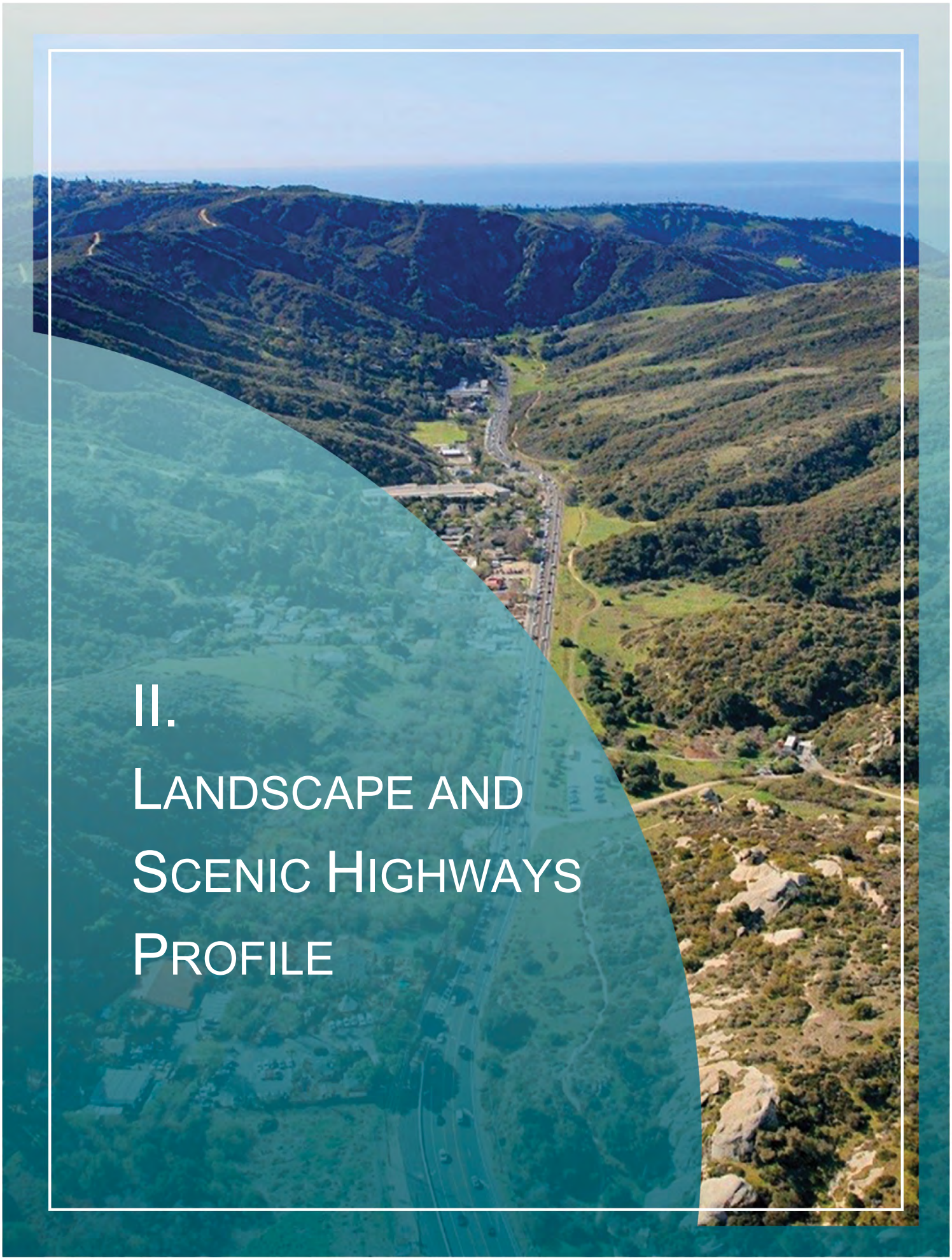

II. Landscape and Scenic Highways Profile

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II. LANDSCAPE AND SCENIC HIGHWAYS PROFILE

This chapter forms the factual basis and background for the policies in the Landscape and Scenic Highways Element.

NATURAL AND MANMADE LANDSCAPE

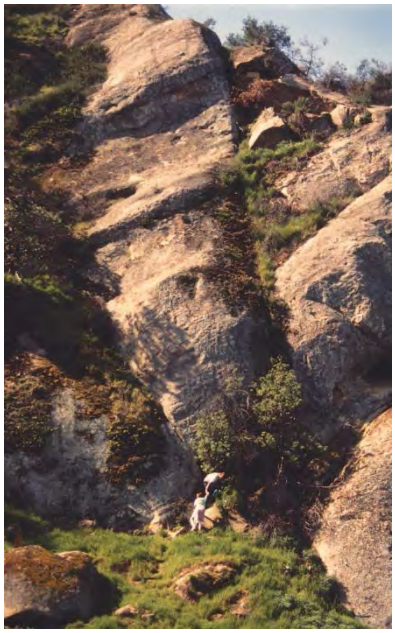
Laguna Beach possesses extraordinary natural and manmade features, with a vibrant community culture and history. The City also faces significant natural hazards with regard to fires and landform stability. Effective community design policies and actions require that these attributes and their interrelationships be understood and addressed in the Landscape and Scenic Highways Element.

GEOLOGICAL SETTING

The image of Laguna Beach, with its rocky cliffs, tide pools, ever-changing waves, tides, and beaches, is linked to its geologic setting and interactions between the ocean and coastline. Protection of these natural features is a principal goal of the Landscape and Scenic Highways Element.

Topanga Sandstone, Kay Ogden photo

San Onofre Breccia



Doug Thompson photo

The San Joaquin Hills are a defining feature of Laguna Beach. Extending from just south of the City boundary near Salt Creek to north of Crystal Cove, this mountainous landform separates the alluvial plain/former agricultural area of Orange County from the coast. The enclaves formed by these enclosing hills are the basis for the creation of the City's character. Composed primarily of the Topanga Sandstone and San Onofre breccia formations, the San Joaquin Hills are scenic features.

Laguna's outcroppings, cliffs, boulders, sea caves, and arches are the visible expression of the under-lying geological structure.

The unusual volcanic intrusion that forms Abalone Knoll also creates the vertical post-pile formation that is exposed in Irvine Cove at the north end of the city, Seal Rock, and the cliffs near Crescent Bay.

The two principal streams that flow through Laguna Beach--Laguna Creek and Aliso Creek, have produced canyons that reveal the two major geological formations of the town. The large sandstone boulders, caves, and cliffs of the Topanga formation provide habitats for California sycamores, coast live oaks, and coastal sagebrush vegetation, giving Laguna Canyon its rustic and memorable scenes. The blue-gray San Onofre Breccia formation at Aliso Canyon is hard enough to support vertical and overhanging cliffs, producing the escarpments that have led Aliso Canyon to be described as "Laguna's Yosemite." Smaller streams and their arroyos originating in the local hills bisect the coastal landscape and are reflected in the undulating patterns of the City's street system.

NATURAL VEGETATION

Laguna's underlying rock formations and attendant soils contain physical characteristics that have produced vegetation uniquely adapted to its setting. In San Onofre Breccia areas, mostly in the southern part of the City, soil conditions are favorable for Southern Maritime Chaparral, a globally rare vegetation association, called the "elfin forest" by naturalists. The chaparral gives the hills a dark green hue, except in wet winters when the big-pod California lilac blankets the hills with white flowers.

This rare association includes plants growing together that are normally found in disparate areas of inland California and Mexico. These include large evergreen woody shrubs such as California lilac, mountain mahogany, scrub oak, toyon, laurel sumac, chamise, and lemonade berry, as well as smaller shrubs such as bladder pod, and bush rue, that grow alongside the summer-deciduous crownbeard, sages, and sagebrush. An endemic succulent, Laguna Beach dudleya, occupies niches in the rocky cliffs.

The drier areas underlain by Topanga Sandstone, primarily found in the central and northern parts of the city, support coastal sage scrub, with sage, sagebrush, prickly pear cactus, lemonade berry, laurel sumac and toyon. Coast live oaks and Mexican elderberry trees grow in spots where water collects or flows.

Laguna Canyon, with its year-round water source, supports arroyo willow, California sycamore, and coast live oaks, creating areas of shady forest within the coastal sage scrub setting. It is probable that similar vegetation once grew in the lower reaches of Aliso Canyon before homesteading, farming and the present golf course converted the landscape.

Big-pod California Lilac

Crownbeard

Lance-leaf Dudleya

Peter P. Ott photo

LANDSCAPE ART

The Laguna Beach landscape has historically elicited memorable images. Many of these images of town, coastline, and hills have been the subject of artists' work for over a century, with the best known being that of Laguna *plein air* (or open air landscape) painters. The work of many of these artists is on display in major museums and important private collections.

The world-renowned work of these painters and other artists portray Laguna's ocean, cliffs, rock formations, cottages, its downtown village, and the intense light that is created by the reflectivity of the sea and hillsides. Present day *plein air* painters still depict Laguna landscapes for a worldwide audience. The landscape that provides this inspiration is in the community's trust for present and future generations.

William Wendt "The Old Coast Road" circa 1916

Jean Mannheim "The Awakening of Spring"
Arch Beach 1920

Joseph Kleitsch "Laguna Road" 1924

NATURAL AND MANMADE OPEN SPACE

The topography of the Laguna Beach area has also influenced settlement history, development patterns, and architectural styles. Ranch boundaries and the constraints posed by local hillsides and canyons discouraged or precluded development of these areas and created the opportunity for the conservation of the large areas of preserved open space, now generally referred to as the Laguna Greenbelt. The Greenbelt encompasses some 22,000 acres within and outside of the City limits and includes City-owned open space parcels, Laguna Coast Wilderness Park, Crystal Cove State Park, and Aliso and Wood Canyons Wilderness Park.

Approximately 500 acres of privately owned land remain in naturally vegetated open space on the edge of urban development, mostly adjacent to publicly owned open space lands. Along with natural open space, Laguna Beach has community and neighborhood parks that define the local landscape. These include Heisler, Main Beach, Treasure Island, Alta Laguna, Bluebird, Moulton Meadows, and Lang parks, Riddle Field, and a number of neighborhood pocket parks throughout the City.

Treasure Island, Heisler, and Main Beach parks contribute to the iconic images of Laguna Beach due to their high visibility at the seashore edge.

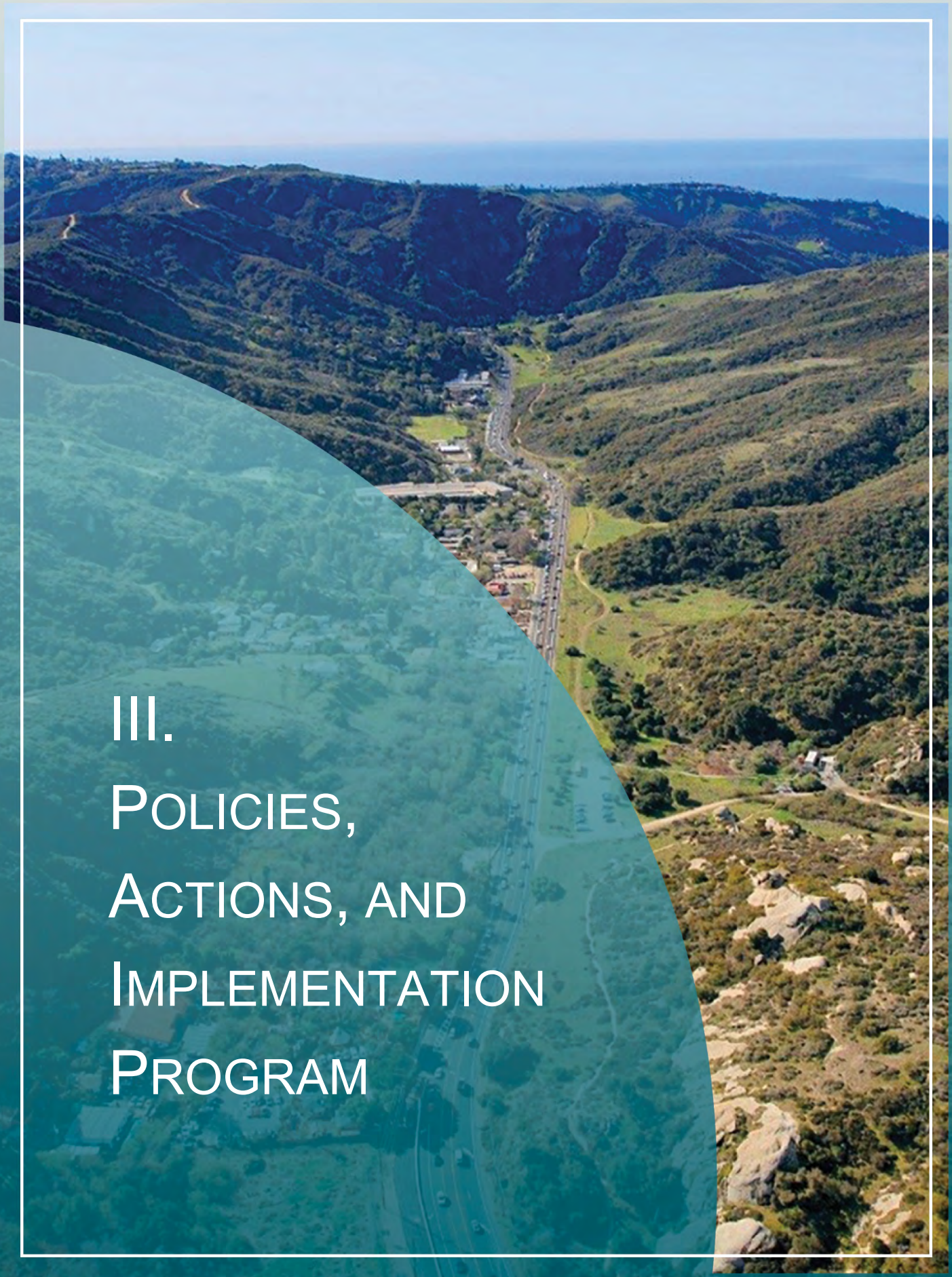
NEIGHBORHOODS

Laguna Beach is comprised of 13 sub-areas with some 38 neighborhoods and surrounding natural open space within the city's nine square mile jurisdiction. Neighborhoods and neighborhood considerations are described in detail in the Landscape and Scenic Highways Resource Document, along with recommendations for reinforcing and enhancing their distinctive qualities.

SCENIC HIGHWAYS AND CORRIDORS

A scenic highway is a roadway that is located in an area of outstanding natural beauty, providing exceptional views of natural landscapes and attractive man-made development. A scenic corridor is the land adjacent to a scenic highway, outside of the right-of-way that is being viewed from the road. The concept of "scenic" depends upon how much of the natural landscape can be seen by travelers, the visual quality of the landscape, and the extent to which development does not intrude upon the traveler's enjoyment of the view. In California, a scenic highway can have either a State or local designation based on corridor protection plans that follow State guidelines and compatible local requirements. Coast Highway, Laguna Canyon Road, and El Toro Road are the three arterial roads within and adjacent to Laguna Beach that meet scenic highways designation guidelines. Scenic Highways and Corridors design considerations are described in detail in the Landscape and Scenic Highways Resource Document (LSHRD).

View from Coast Highway of Aliso Beach



III. Policies, Actions, and Implementation Program

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III. POLICIES, ACTIONS, AND IMPLEMENTATION PROGRAM

INTRODUCTION

The first two chapters of the LSHE provide an overview of the City's natural and manmade landscape, neighborhood character, and scenic highways. These chapters provide the context and rational for the Landscape and Scenic Highways goals, policies, action items, and implementation programs. This chapter includes eight topic areas: neighborhood character, view management, scenic highways, streetscape and parks, heritage trees and landscapes, fire safety, landform stability, and design and maintenance. These topics are of central importance because they represent the goals, policies, and priorities of the community by which future projects are measured. A Goals, Policies and Action matrices is provided in the appendix as a quick reference tool to use when considering or designing a new project.

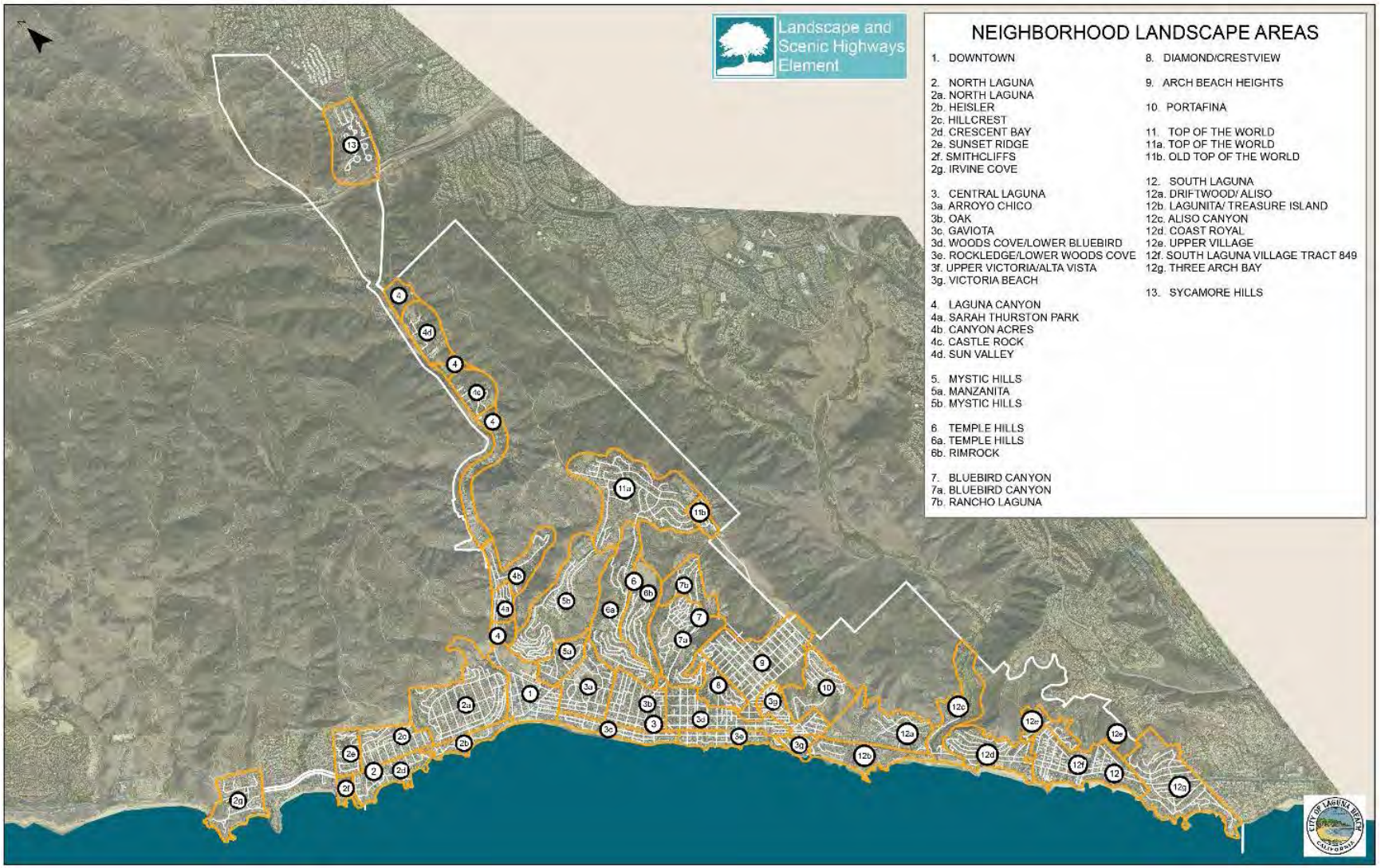
TOPIC 1: NEIGHBORHOOD CHARACTER

GOAL: **Protect and improve Laguna Beach's neighborhood landscapes.**

INTENT: The Neighborhood Character policies and actions will protect, improve, and adaptively manage this resource as the community evolves. By including an educational component to neighborhood character management, residents and visitors will have a deeper appreciation of the natural and cultural forces that have shaped these neighborhoods; and hence motivation to protect and improve this valuable heritage.

The quality and variety of Laguna's distinct neighborhood landscapes are fundamental to the City's attractiveness. These attributes are culturally important to residents, enhance the quality of life, bolster property values and the city tax base, and attract millions of visitors, including landscape artists who have been portraying the community for more than 100 years. Laguna Beach is comprised of 13 neighborhood landscape areas, which are further divided into 38 distinct neighborhoods (refer to the exhibit on page 23) and surrounding natural open space within the city's nine square mile jurisdiction. The landscape character of each of the neighborhoods are described in detail within the Landscape and Scenic Highways Resource Document (LSHRD). Within the LSHRD are landscape design guidelines that reinforce and enhance each neighborhood's distinct qualities.

These diverse neighborhoods are the result of development having taken place over a long period of time, land ownership originating from the original homesteading and rancho boundaries, topography, geological conditions, cultural influences—especially those of early artist settlers, architectural and landscape trends and other factors. The scale and charm of Laguna Beach is due in large part to the vegetation in residential neighborhoods, and much of that scenic vegetation includes Eucalyptus trees. Eucalyptus have been strongly associated with the character and culture of Laguna Beach since the first homesteaders planted them beginning in the 1880s. The California Impressionist painters in Southern California were called the Eucalyptus School and Laguna Beach was a hub for the movement that continues today.


Landscape and Scenic Highways Element
NEIGHBORHOOD LANDSCAPE AREAS
1. DOWNTOWN
2. NORTH LAGUNA
2a. NORTH LAGUNA
2b. HEISLER
2c. HILLCREST
2d. CRESCENT BAY
2e. SUNSET RIDGE
2f. SMITHCLIFFS
2g. IRVINE COVE
3. CENTRAL LAGUNA
3a. ARROYO CHICO
3b. OAK
3c. GAVIOTA
3d. WOODS COVE/LOWER BLUEBIRD
3e. ROCKLEDGE/LOWER WOODS COVE
3f. UPPER VICTORIA/ALTA VISTA
3g. VICTORIA BEACH
4. LAGUNA CANYON
4a. SARAH THURSTON PARK
4b. CANYON ACRES
4c. CASTLE ROCK
4d. SUN VALLEY
5. MYSTIC HILLS
5a. MANZANITA
5b. MYSTIC HILLS
6. TEMPLE HILLS
6a. TEMPLE HILLS
6b. RIMROCK
7. BLUEBIRD CANYON
7a. BLUEBIRD CANYON
7b. RANCHO LAGUNA
8. DIAMOND/CRESTVIEW
9. ARCH BEACH HEIGHTS
10. PORTAFINA
11. TOP OF THE WORLD
11a. TOP OF THE WORLD
11b. OLD TOP OF THE WORLD
12. SOUTH LAGUNA
12a. DRIFTWOOD/ ALISO
12b. LAGUNITA/ TREASURE ISLAND
12c. ALISO CANYON
12d. COAST ROYAL
12e. UPPER VILLAGE
12f. SOUTH LAGUNA VILLAGE TRACT 849
12g. THREE ARCH BAY
13. SYCAMORE HILLS

Hillside development is highly visible, from above and below. Most of these sub-communities have the common ingredient of an informal landscape structure that blends residential development with the land, and unifies diverse architectural styles into a cohesive community pattern.

Low-lying coastal neighborhoods tend to be less steep and have a strong marine climate influence. Salt-laden ocean winds along the coastline edge can restrict plant growth and choices. A few blocks inland, landscapes tend to be more lush and tropical in nature. Hillside neighborhoods, such as Mystic Hills and Temple Hills, are highly visible from lower elevations. Hilltop neighborhoods, such as Top of the World and Arch Beach Heights, are located adjacent to inland natural areas and being elevated, have a more arid climate.

Much of Laguna Beach may be termed “rustic” in relation to nearby planned-communities. Neighborhoods such as Laguna Canyon, Old Top of the World, Bluebird Canyon, and South Laguna Village have an especially rustic quality. These neighborhoods are typified by narrow streets, building sites that fit the natural topography, wood building materials, and simple hardscape (walls, fences, terraces, etc.) with use of natural materials.

Rustic character is not only expressed in the shape, style, and construction of homes, but also in planting, which tends to be informal with a diversity of form, texture, and color. The use of native vegetation and hardscape emphasizing natural materials enhances this style.

Some neighborhood streets are improved with curbs, gutter, and sidewalks. However, many streets are only partially improved, with minimum paving to provide access to abutting properties. In most cases, streets have only partial curb, gutter, and sidewalk improvements. In areas where streets are not paved to the width of the right-of-way and sidewalks are not provided, an unimproved strip of land remains between the street pavement and the adjoining private property boundary. Private landscaping often extends into this unimproved right-of-way area. In some cases, there are identifiable street tree patterns. In others, the planting is eclectic. These areas provide opportunities for landscaping that enhances the distinct character of each neighborhood. The neighborhood landscape policies are therefore intended to build upon the character of each neighborhood and focus on landscape improvements with private residential development projects. This is especially important because there is limited public right-of-way in many of the city neighborhoods and the best opportunities to preserve and enhance neighborhood landscapes is on private property (Refer to the LSHRD for specifics on neighborhood landscape character, sidewalks, streetscape design, and planting guidelines for each neighborhood).

Policies

Policy 1.1	**Foster community appreciation of landscape resources and promote awareness of Laguna's neighborhoods as valuable community resources.**
Action 1.1.1	Distribute informational materials to residents using the descriptions and suggestions in the Landscape and Scenic Highways Resource Document and other sources, as applicable. (Implementation: Short-term)
Action 1.1.2	Distribute the Landscape and Scenic Highways Resource Document as a companion to the Residential Design Guidelines for Design Review. (Implementation: Short-term)
Policy 1.2	**Implement programs to insure neighborhood landscape character protection and enhancement.**
Action 1.2.1	Consult neighborhood descriptions and recommendations contained in the Landscape and Scenic Highways Resource Document during the development project review process. (Implementation: On-going)

Policy 1.3	**Reinforce City policies to protect the City's landforms, including ridgelines, hillsides, rock outcroppings, canyons, watercourses, bluffs, shoreline rock formations, beaches and the marine environment, and cultural resources.**
Action 1.3.1	Review existing policies and ordinances for effectiveness in neighborhood protection. Suggest possible improvements. (Implementation: Short-term)
Action 1.3.2	Continue to provide historical and archaeological site protection guidelines. (Implementation: Mid-term)
Action 1.3.3	Continue to provide natural watercourse protection recommendations for preserving, restoring, enhancing, and maintaining natural watercourses, including beach sand replenishment. (Implementation: On-going)
Policy 1.4	**Ensure that the Laguna Beach landscape will continue to include large mature trees, including eucalyptus, cypress, pines, cedars, palms, and others. Foster preservation of existing large trees.**
Action 1.4.1	Update design guidelines to provide for large trees to remain and be planted at select locations pursuant to Land Use Element Policy 2.6. (Implementation: Short-term)
Action 1.4.2	Because large mature trees are important to community character, discourage the trade-off of approving new building development that blocks views. (Implementation: Short-term)

Policy 1.5	**Encourage the creation of public spaces and require sidewalk improvements and dedications where appropriate in new development and major remodels.**
Action 1.5.1	Update the zoning plan checklist for these improvements and dedications. (Implementation: Short-term)
Policy 1.6	**Encourage the creation of pocket parks and community gardens. Community gardens should be privately operated and maintained.**
Action 1.6.1	Working with neighborhood groups, identify potential pocket parks and community garden sites, including vacant privately-owned and publicly owned properties. (Implementation: Short-term)
Action 1.6.2	Encourage City/private partnerships for purchasing neighborhood parks and community gardens. Consider permit fee waivers, site acquisition funding, staff guidance and support, and city-sponsored programs. (Implementation: Short-term)
Action 1.6.3	Develop pocket park and community garden guidelines and implementation strategies. (Implementation: Short-term)

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TOPIC 2: VIEW MANAGEMENT

GOAL: **Maintain public and private views through balanced consideration of the functional and aesthetic benefits of properly chosen and located ornamental vegetation. Maintain Laguna Beach's landscape character.**

INTENT: The complexity of view management with respect to landscape is such that the City has become increasingly involved in the process. While the City has taken numerous steps over the years to address this issue, the process is evolving. The City will continue to seek methods to improve landscape planning and maintenance for view management and landscape preservation, with a focus on education and private sector incentives.

View management deals with neighborhood character, intimate views and expansive views, view preservation and view equity. The cultural and economic values held by the Laguna Beach community related to the City's extraordinary view-scape is of central importance to the town. Landscape and Scenic Highways Element policies and actions address this crucial issue in response to public input and regulation that has been evolving over the years.

View Preservation and Restoration, Section 12.16 of the Municipal Code, governs view management as it pertains to private property. This 2014 ordinance establishes a right for property owners to preserve selected viewing locations and restore preexisting views that have been impaired by trees or other vegetation. It establishes criteria for determining significant view impairment and provides criteria for reestablishing preexisting views. A process for communicating, mediating, filing complaints, and resolving them through the work of the view restoration committee is outlined. In addition, the Design Review Board considers view issues when evaluating landscape plans, and the Hedge Ordinance, Section 12.14 of the Municipal Code, outlines a procedure to establish height limits on hedges within the front, side, or rear yards.

The policies and action items connected with this topic are intended to inform processes, and provide design guidelines and considerations to be included in these view management decisions.

View from the top of Niguel Hill looking west over Aliso Peak

View to the ocean over the mature and rich vegetation of Woods Cove.

Landscape scenes have been part of appreciated views from the early days of settlement. At the time the first homesteaders arrived, Laguna Beach's views were considerably more expansive than they are now. Natural open space with low-growing native species dominated the scene, except in the canyons and arroyos where native trees thrived. Landscapes and views began to change with the planting of groves of Eucalyptus trees and orchards as part of the homesteading process, and later the construction of houses and stores. Trees were planted to shade and soften the new buildings, and tree neighborhoods began to form. In the 1920's, the community began active tree planting programs for beautification.

The City's hillsides, its natural and man-made landscape, and its marine setting located in a Mediterranean latitude and climate, combine to create a visual setting of superior quality and attractiveness. For example, Laguna Beach's steep-angle panoramas such as those seen from Arch Beach Heights contrast with the intimate, highly textured, and internally focused views experienced in the "tree streets" of North Laguna. These, and many variations around town are valued and important to the community.

There are two different aspects of views – private and public. Conflict often occurs between these two "points of view." It is important that both aspects be given balanced consideration.

Private views are those from within a residence or parcel of land to a location off-site. The view may range from a narrow view corridor to a panoramic view of the ocean, canyons, hillsides, or town. Both hillside and lower lying properties may enjoy these views. Private views are specific and personal in nature and can only be evaluated on a case-by-case basis.

Public views may be scenic views from Coast Highway, Laguna Canyon Road, or other streets up to the hillsides, canyons, or down to the ocean, or views to or from other public areas including parks, beaches, trails, and viewpoints. Public views contribute to the overall image of the community and the character of individual neighborhoods.

Property values and quality of life are directly related to the views to and from Laguna Beach residences and businesses, as well as views of mature trees and landscaping that soften and enhance the views of structures and unify and reinforce the image of Laguna Beach. These aesthetic values and quality of life considerations combine to make views in the landscape an LSHE priority. The LSHE view management policies and actions take these factors into consideration.

Policies

Policy 2.1	**Continue efforts to inform the community about best view management landscape practices.**
Action 2.1.1	Periodically update informational brochures and provide for public outreach through materials posted at City Hall, mailers, website postings, and social media strategies. Include information on view management and the positive and negative effects of vegetation in that regard. Include sections on plant material selection, location, pruning, and maintenance techniques. (Implementation: Long-term/ongoing)
Policy 2.2	**Promote improved long-term pruning techniques to enhance neighborhood views, promote tree health, and produce safe and natural tree form.**
Action 2.2.1	Develop and disseminate a pruning guide for the public, utilities, and tree pruners. (Implementation: Mid-term)
Action 2.2.2	Consider development guidelines and regulations that promote appropriate pruning and discourage severe pruning practices. See action 8.18.1. (Implementation: Mid-term)
Policy 2.3	**Maintain Laguna Beach's traditional landscape character, including its tree-scape. Include the following criteria in decisions related to view and tree management:** • **Select and locate trees to protect and enhance ocean, canyon, and hillside views. Delineate the intent of landscape plans at plant maturity in relation to the location of view corridors or screening areas.**

- **Discourage plant materials that would require excessive maintenance to preserve key view corridors.**
- **Encourage an equitable balance between reasonable use and enjoyment of landscape vegetation and privacy, and the enjoyment of views by others.**
- **Evaluate the cumulative, long-term effect on the landscape character of the community (public views) when landscape changes to improve views for individuals (private views) are considered. Require appropriate measures to screen new development from open space areas.**
- **Promote planting and preservation of tall-growing trees in select areas where trees will not block significant views from residences so that in the future the city will continue to have a treescape rising above the rooflines of buildings.**

Action 2.3.1 Update design guidelines and view evaluation processes to provide for these criteria. (Implementation: Short-term)

Action 2.3.2 Provide for an annual audit to the Planning Commission and City Council of tree-related decisions, including the effect of related City ordinances. Consider adjustments to City ordinances and procedures in relation to view management goals and criteria as results are reviewed. (Implementation: Mid-term)

Action 2.3.3 For all new development on private property that includes landscape plan approval, ensure the landscaping is consistent with the goals and criteria of the View Preservation and Restoration Ordinance. For all City projects, landscaping should be placed to maintain and enhance scenic vistas (Implementation: On-going).

TOPIC 3: SCENIC HIGHWAYS

GOAL: **Provide planning and implementation that will assure that the best qualities of the City's Scenic Highways and their visual corridors are maintained and improved where necessary to create the highest aesthetic standard consistent with scenic highway practices and community values.**

INTENT: The Scenic Highways component is a first step toward the official designation of a road as a scenic highway. The City will implement Corridor Protection Plans (CPP) for Coast Highway, Laguna Canyon Road, and El Toro Road within city boundaries. The CPPs will coordinate improvements such as improved safety, utility undergrounding, pedestrian walkways and bicycle trails, landscaping, and preservation of landforms and vegetation.

View from Laguna Canyon Road

The major thrust of the Scenic Highways component is the provision of policies and action items that will optimize the interface between the roadway and the environment, and assure safety for all users. As such, there is a strong relationship between the overall LSHE, and other General Plan Elements including; Land Use, Safety, Open Space/Conservation, and Circulation. The City's Municipal Code sections that govern zoning, site development standards, signage, views, etc., also affect and support scenic highways planning, design, and implementation.

The Scenic Highways component is thus a policy guide for decisions on projects affecting the corridors, and it provides guidance for the formation of budget and capital improvement programs. The Scenic Highways component also encourages the City to work with involved agencies in the Laguna Canyon area outside of the Laguna Beach jurisdictional boundaries to consider establishment of a state scenic highway designation for Laguna Canyon Road in those areas.

State Scenic Highway Statutes and Standards

California's Scenic Highway Program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. Coast Highway is an eligible State Scenic Highway, but Legislative action would be required to include Laguna Canyon Road on the official State list of eligible State Scenic

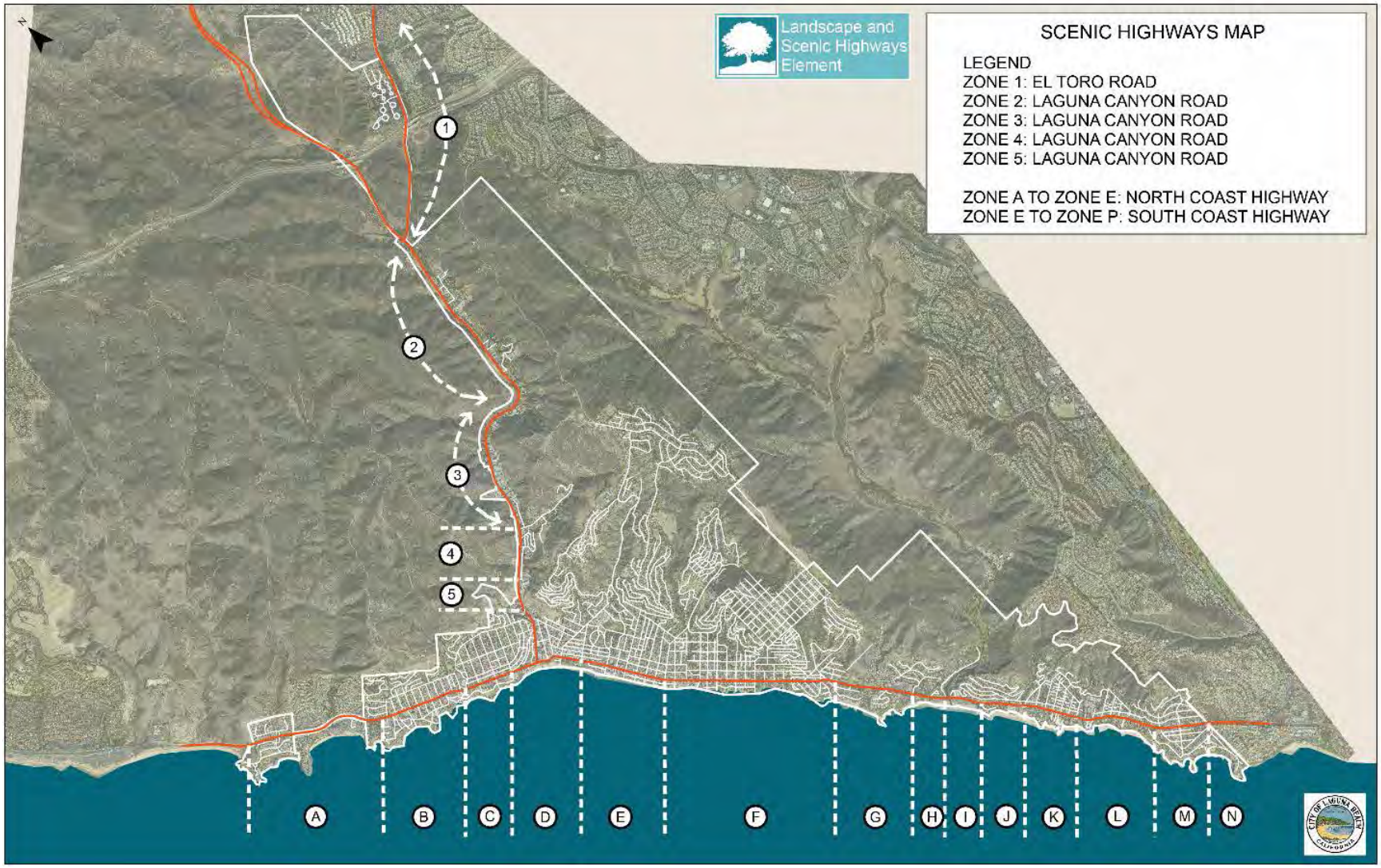
Highways and to qualify it to be a State-designated Scenic Highway. The County considers Coast Highway, Laguna Canyon Road, and El Toro Road as Viewscape Corridors in its Scenic Highway Plan in the County's General Plan.

The concept of a scenic highway incorporates the idea that since both the landscape and the townscape are seen from the roadway and thus a part of the travelers experience, they should be taken into consideration during new or existing highway design. Such an approach incorporates the idea of a "complete highway", first developed in the 1940's, that incorporates safety, utility, economy, and beauty. This concept is similar to the present-day "complete streets" programs mandated by the State of California.

The standards for State Scenic Highways require that local governmental agencies protect the scenic appearance of the scenic corridor, the land generally adjacent to the highway right-of-way, and seen from it, "including, but not limited to, (1) regulation of land use and intensity (density) of development; (2) detailed land and site planning; (3) control of outdoor advertising; (4) careful attention to and control of earthmoving and landscaping; and (5) the design and appearance of structures and equipment." (Section 261 of the California Streets and Highways Code). These standards are implemented through corridor protection plans. Regulations and guidelines already in place in Laguna Beach, existing open space preservation programs, and the policies of this Element will be important components of corridor protection plans for the City's scenic highways.

Ocean, foothills, rock outcroppings, landscape, and architecture combine to form the visual attributes of Coast Highway

Aerial showing the coastline adjacent to Coast Highway and open space along Laguna Canyon Road.


Landscape and Scenic Highways Element
SCENIC HIGHWAYS MAP
LEGEND
ZONE 1: EL TORO ROAD
ZONE 2: LAGUNA CANYON ROAD
ZONE 3: LAGUNA CANYON ROAD
ZONE 4: LAGUNA CANYON ROAD
ZONE 5: LAGUNA CANYON ROAD
ZONE A TO ZONE E: NORTH COAST HIGHWAY
ZONE E TO ZONE P: SOUTH COAST HIGHWAY
1
2
3
4
5
A
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Scenic Highway Planning and Land Use

The urban design principle central to scenic highways planning is defining a sense of place--the ability to distinguish one area from another in form and in sequence. In recent decades, standardized design, construction materials, construction techniques, and building and zoning codes have combined to create uniformity of place. Urbanized areas blend together, City entrances become indistinguishable, and separate communities appear as one.

Many areas of Orange County have lost the opportunity to use city entrances as a defining urban design element. Attempts have been made to distinguish "blended" cities from one another, yet nothing in the region can compare with Laguna's entrances. Protection and enhancement of these entry points is a key imperative of the Landscape and Scenic Highways Element. Fortunately, Laguna Beach's land use, zoning, design review, and open space preservation regulations have contributed to maintaining the community's distinctiveness and separation from surrounding urbanized areas.

City entrances need not correspond with City limits. For example, the City entrances at Laguna Canyon and South Coast Highway are not defined at a single point but by a sequence of events that begin beyond City boundaries. In Laguna Canyon, the Laguna Greenbelt, comprised of Laguna Coast and Aliso and Wood Canyons Wilderness Parks, provides thousands of acres of natural landscape with a diversity of short-range and distant views.

Closer to town, open space, and development gradually blend into one another. At the south end of town, the City limit at Three Arch Bay is relatively indistinguishable from the development in Monarch Beach. On North Coast Highway, the Crystal Cove State Park portion of the Laguna Greenbelt provides the open space transition as one enters Irvine Cove and North Laguna.

Corridor Protection Plans

For the City's Scenic Highways to be considered for State designation, the City must develop and adopt a corridor protection program to protect and enhance the scenic qualities of the routes. Along with legislation and designation requests, the heart of the State Scenic Highway process is this Corridor Protection Program. The State Guidelines set forth the requirements, elements and processing of these programs. The Guidelines summarize the Corridor Protection Programs as follows with respect to planning:

> *"This step requires the local governing body to develop and adopt protection measures in the form of ordinances, zoning, and/or*

planning policies that apply to the area of land within the scenic corridor….When there is more than one governing body involved, each jurisdiction shall jointly submit protection measures. Such ordinances and/or policies may already exist."

The policies and programs in the LSHE serve to organize and to integrate existing and future programs—both state and local--into a cohesive framework to preserve and improve the existing outstanding qualities of Coast Highway, Laguna Canyon, and El Toro Roads.

The LSHE therefore sets forth a process for the completion of local scenic highway corridor programs in conjunction with other initiatives (e.g., Orange County Transportation Authority, Coast Highway complete streets, and ADA-compliant access program).

Corridor Protection Issues and Considerations in Laguna Beach

Also in accord with the Caltrans Guidelines, the corridor protection planning considerations involve the following scenic highway related issues for Laguna Beach's three arterial highways:

- Enhanced safety for all users.
- Improvements to pedestrian and bicycle circulation and adjacent landscaping.
- Enhancements to streetscape edge conditions such as: pathways and sidewalks, drainage devices, signage and infrastructure (such as lights, utility boxes, etc.), and associated landscaping.
- Undergrounding of overhead utilities on Coast Highway and Laguna Canyon Road.
- Control of signage and other roadway appurtenances.
- Future cross-section condition of Laguna Canyon Road from El Toro Road to Canyon Acres Drive, to be limited to two vehicular travel lanes consistent with the Circulation Element and other plans.
- Role of an expanded Laguna College of Art and Design in scenic highway aesthetics and patterns on Laguna Canyon Road.
- Coast Highway street trees and medians.
- Laguna Canyon Road street trees and medians.

- Improving the landscape as viewed from the roadways.
- Ridgeline and hillside view preservation.
- Further Laguna Canyon Road streetscape improvements, including the Village Entrance Site/Festival of the Arts and Broadway to Coast Highway.
- Regulations and design guidelines for frontage along Coast Highway and the developed portions of Laguna Canyon Road needed to bring this area to scenic highway standards.

Scenic Highway Planning Tools and Conditions Analysis

The 1975 Scenic Highways Element set forth 11 topics describing needs and options for improvements to scenic highway corridors, many of which, have been adopted by the City, although not through a specific corridor protection plan or a scenic highway designation. The 1975 document noted numerous deficiencies in land use and the regulations that were impediments to scenic highways planning. Issues identified at the time and the changes achieved in the ensuing decades are detailed in Appendix I, LSHRD. However, significant work remains to be done to bring Laguna's scenic highways to their full aesthetic potential, especially along the southerly side of Laguna Canyon Road and portions of Coast Highway. The policies and implementation actions in this LSHE are intended to address the issues that remain today.

Although the City has sought designation throughout the ensuing years—most recently in 2010 as a priority by the City Council—an application for State scenic highways designation for these roadways has not been submitted. However, since 1975, numerous changes in the Municipal Code have improved the regulatory structure. Various policies to improve local scenic highway corridors are the functional equivalent of many aspects of scenic highways corridor protection plans.

However, important initiatives (including state or local scenic highways designation for all of the roads) and improvements consistent with State scenic highways character standards have yet to occur. Comprehensive and cohesive corridor protection plans for the candidate scenic highways need to be completed. For example, the urban land uses along Laguna Canyon Road have yet to reach an aesthetic standard that would logically be expected in a scenic highway corridor and overhead utilities remain unattractive and hazardous features.

Fortunately, the City's regulatory processes provide many of the tools by which corridor protection plans can be completed and implemented, subject to funding. Integrated planning initiatives for Laguna Canyon Road

begun in 2014, and have provided the opportunity to further develop scenic highway planning programs and strategies. Using these tools, the scenic highway policies and actions that follow provide guidance for corridor protection plans that can be implemented within the timeframe of the Landscape and Scenic Highways Element.

Policies

Policy 3.1

Create scenic highway Corridor Protection Programs (CPP) for Coast Highway, Laguna Canyon Road, and El Toro Road as a planning priority.

Action 3.1.1 Develop Corridor Protection Programs for Coast Highway, Laguna Canyon Road, and El Toro Road considering the criteria and action items contained in Appendix II, LSHRD and the Enhancement Mobility and Complete Streets Transition Plan. Each Program will include maps that identify key landscape elements, vistas, architectural icons, topographic landforms, and other unique qualities and conditions that are influential to each road experience. Each element identified will include a brief explanation of why it is an important visual component to the corridor. (Implementation: Short-term)

Action 3.1.2 Incorporate a Corridor Protection Program for Laguna Canyon Road and El Toro Road as a part of the Laguna Canyon Specific Plan. (Implementation: Short-term)

Action 3.1.3 Work with the County of Orange and the City of Irvine to develop Corridor Protection Plans for Laguna Canyon Road, including scenic highway policies and protections for the areas outside of the city's boundaries, to maintain the Canyon's wilderness character and protect the views of natural areas from the road. (Implementation: Mid-term)

Policy 3.2	**Prioritize enhanced safety for all scenic highway users in corridor protection planning, consistent with other LSHE policies.**
Action 3.2.1	Work with the County of Orange and Caltrans to assure that regional plans for Coast Highway include enhanced street safety features, such as continuous pedestrian walkways and other measures whose design is consistent and compatible with all relevant LSHE policies and actions. (Implementation: Short-term: 1-3 yrs.)
Policy 3.3	**Provide for implementation of local scenic highways goals and plans.**
Action 3.3.1	Pursue the creation of a local scenic highways designation. (Implementation: Short-term)
Action 3.3.2	Develop standards for and require dedications of additional rights-of-way when development plans are approved. (Implementation: Short-term)
Action 3.3.3	Continue to discourage additional curb cuts, driveways, and parking pads accessed directly from the scenic highways when an alternative access is available. (Implementation: Short-term)
Action 3.3.4	Require additional right-of-way dedications and construction of recommended improvements within the right-of-way as a condition of approval of permits for development. (Implementation: Short-term)
Action 3.3.5	When evaluating street improvement, capital improvement, and private projects, consult recommendations and cross sections for scenic highways contained in the Landscape and Scenic Highways Resource Document. Maintain rural quality of road edges where applicable. (Implementation: Short-term)

Action 3.3.6 Implement a Master Agreement between the City and Caltrans to facilitate permit approval whereby individual applicants can expeditiously comply with the provisions of the Landscape and Scenic Highways Element and Resource Document as they pertain to Caltrans rights-of-way and encroachment permits. (Implementation: Short-term)

Action 3.3.7 To have more local control over the quality of the design and preservation of the City's scenic corridors, consider negotiating with Caltrans to establish an agreement, or potentially transfer ROW ownership from Caltrans to the City of Laguna Beach. The purpose of an agreement or transfer is to improve the quality of landscape and streetscape, and provide more flexibility on roadway design elements along Coast Highway and Laguna Canyon Road. While an agreement would ensure ownership is retained with Caltrans, a transfer of ownership of these two right-of-ways would place a significant added financial burden and liability on the City with no known funding mechanism to cover the cost, so a transfer should only be pursued if there is a budget to cover the added cost, and the benefits to the community outweigh the costs and risk.

Policy 3.4 **Optimize use of the existing rights-of-way until opportunities to obtain additional rights-of-way occur, and seek to expand the right-of-way on streets like Coast Highway when space is limited and where sidewalks do not exist, while avoiding building retaining walls to install the sidewalk.**

Action 3.4.1 Evaluate opportunities to remove or relocate pedestrian movement impediments and safety hazards (e.g., parking meters, traffic signs, utility pedestals, mail boxes, walls, landscaping, etc.). Provide walkable surfaces within the existing right-of-way. (Implementation: Short-term)

Action 3.4.2 Study options to provide enhanced walkways within the present rights-of-way. Consider options such as consolidating walkways on one side of the street,

restriping lanes, and bulb-outs (See Glossary). (Implementation: Short-term)

Policy 3.5	**Promote undergrounding of utilities and limit installation of new signs, visible utility items, and other features.**
Action 3.5.1	Coordinate with other City initiatives on urban design, public works, and infrastructure planning. (Implementation: Short-term)
Policy 3.6	**Consider working with the County of Orange and the City of Irvine to develop scenic highway policies and protections for Laguna Canyon Road outside of the City's boundaries, to maintain the Canyon's wilderness character and protect the views of natural areas from the road.**
Action 3.6.1	Meet with Caltrans, the County of Orange, and the City of Irvine to assess this opportunity. Pursue planning and designation efforts. (Implementation: Short-term.)

TOPIC 4: STREETSCAPES AND PARKS

GOAL: **Assure that City streets, rights-of-way, and parks-defining elements of neighborhood character-inclusive of street trees and shrubs, hardscape, lighting, and other utilities and fixtures, are maintained and where necessary, improved to the highest standards.**

INTENT: The City recognizes that the character of its streetscapes is vital to community identity and quality of life. In particular, street tree planting and management in areas where a formal program exists, such as downtown and Coast Highway, is a priority. In addition, other areas of the community may also benefit from such programs.

In addition to street tree planting and management; pathways, lighting, and utility improvements are needed in some areas throughout the City, especially in relation to scenic highways planning.

Laguna Beach's streetscape and parks contribute significantly to the town's character. As the City evolves and faces larger numbers of visitors, effective management and necessary improvements in these areas are important for overall community landscape management. Comprehensive guidance for street trees, streetscape elements such as lighting and benches, and design of parks and unimproved rights-of-way are important given the central role that these features play in defining the community.

Rights-of-Way Management/Street Trees

The City, utility companies, and private property owners manage plantings in the unpaved public right of way. Certain street trees are part of the city maintenance program. A 1995 inventory and arborist report identified and mapped the locations of over a thousand city-maintained street trees. By 2012, there were over 1,100 street trees in the City program. A large number of these trees are located along Coast Highway and in the downtown area. The City also maintains selected trees in residential neighborhoods including North Laguna, Bluebird Canyon, Laguna Canyon, Central Laguna, Old Top of the World, and South Laguna, among others. The majority of the City-maintained trees are Eucalyptus, followed by Ficus and palms.

In addition to pruning, the City also replaces and adds trees to the streetscape, particularly in the downtown and Coast Highway areas. Selection of these replacement trees involves multiple considerations, including microclimate and physical limitations, safety concerns, historical and cultural conditions, and the wishes of the community. These decisions can be resolved through the implementation of recommended comprehensive street tree policies, and reference to the Landscape and Scenic Highways Resource Document.

Public utilities, which provide electricity, gas, water, cable, and telephone services, may maintain vegetation and trees within easement areas. Since this pruning is mostly done to assure clearance from the utility's above-ground equipment, the resulting effect can be unattractive and detrimental to the structure of the trees.

Street Tree and Landscape Management

With the complexity of environmental conditions in the downtown and elsewhere, (e.g., salt spray and wind of the ocean, possible frost in canyons, constricted areas for growth, and the desire to have clear views of signs and storefronts) and opinions on the desired tree appearance, no single street tree or other landscape species can address all relevant selection criteria (Refer to LSHE Policy 8.9). In addition, the unique qualities and historic context in each of Laguna's neighborhoods should be considered. There is a need for a comprehensive approach to street tree and other landscape choices and management.

A comprehensive street tree management program, not only for the downtown, but also for other areas of the City where such street trees exist, is the appropriate way to consider the multiple factors and plan for street trees and landscapes. The streetscape policies and actions provide for implementation of this necessary program. The program would include an analysis and inventory of City streets to establish appropriate need or desirability of expanded street tree programs. The Landscape and Scenic Highways Resource Document includes street tree recommendations.

Other Streetscape Features

In addition to street trees; pavement, sidewalks, plantings, curb and gutter (edge) conditions, benches, trash receptacles, parking meters, light standards, and utility placement and design all influence the quality of Laguna Beach's thoroughfares, and can hinder pedestrian access and clutter the landscape if not thoughtfully placed. Careful design of these details will assure a high quality, safe and functional streetscape.

Parks

Laguna's public parks are some of the community's most treasured resources. As the City experiences increased visitors and park usage, forward-looking policies and management actions are needed to assure maintenance of present high quality standards, and to recommend needed improvements.

Unimproved Rights-of-Way

Many of Laguna's streets are not paved to their full rights-of-way. In addition, there are numerous "paper streets" throughout town with no paving whatsoever, some of which may never receive street improvements due to topographic constraints. Yet these areas are visually important and they present opportunities to protect and improve neighborhood and community landscapes.

With the exception of the listed City-maintained trees and utility company pruning trees, adjacent residents or property owners perform landscape and tree maintenance in the public right-of-way adjacent to their properties in residential neighborhoods. Trees in the public right-of-way are under the jurisdiction of the Public Works Department, which requires permits for tree removal and enforces pruning of plantings that create line-of-sight obstructions for drivers and pedestrians.

Encroachments of paving, walls, and fencing in public streets are governed by Revocable Encroachment Permits issued by the Design Review Board. However, plantings are not subject to such review or permits unless they are part of a Design Review application. The landscaping in the unimproved rights-of-way typically defines the landscape character of streets and neighborhoods, and is thus important to the overall community aesthetic appearance. Policies for the unimproved right-of-way areas recommend preservation of existing trees and adding to the landscape improvements to reinforce neighborhood character.

Policies

Policy 4.1	**Develop a comprehensive street tree, streetscape, and urban design program for each street in the Downtown.**

Action 4.1.1 Hire a qualified landscape architect design consultant to prepare a Downtown Urban Design Implementation Plan that includes:

1. Consistency with the heritage tree program.
2. Review of the general condition including structure, roots, canopy, and health of each tree.
3. Evaluate long-term issues with the existing conditions, like size of planter areas, proximity to buildings, the street, and the future growth of the tree.
4. In recommending tree species and other plantings; consider the width, scale and importance of the street, sidewalk and pedestrian use, outdoor pedestrian areas with shade and seating, building mass, façade and architecture, and tree well sizes/planting areas.
5. Recommend improved tree well design and how to expand the tree planting areas (i.e. narrowing streets, converting parking spaces).
6. Recommend whether to maintain each tree, change it out to a new tree species, or other remedy to insure long-term viability and quality of the tree and streetscape.
7. Recommend urban design principles for each street including shade, seating, street lighting, sidewalk improvements, expanding planting areas, and new public gathering areas.
8. Recommend maintenance, irrigation, and long-term upkeep including monitoring and looking for ways to improve landscaping.
9. Consider the effect on traffic flow and parking to ensure there is not a negative impact on the downtown visitor experience.
10. Follow recommendations and consult tree lists contained in the Landscape and Scenic Highways Resource Document. (Implementation: Short-term)

Policy 4.2	**Continue to address mitigation of driver and pedestrian line-of-sight obstructions posed by right-of-way landscape encroachments.**
Action 4.2.1	Evaluate the present program for any improvements needed. (Implementation: Ongoing)
Action 4.2.2	Consider the formation of a business improvement district for the Downtown, with a portion of the revenue from the parking meters earmarked for Downtown improvements and maintenance. (Implementation: Mid-term)
Policy 4.3	**Consider street tree program options for other neighborhoods.**
Action 4.3.1	Consult the Landscape and Scenic Highways Resource Document, and consult with neighborhood organizations to identify additional neighborhoods that would benefit from a street tree program. (Implementation: Short-term)
Action 4.3.2	Outline criteria, procedures, and options of funding for adding existing or newly planted trees to City tree maintenance programs. (Implementation: Short-term)
Policy 4.4	**Recognize unimproved portions of street rights-of-way and unused "paper streets" as neighborhood enhancement opportunities.**
Action 4.4.1	Develop inventories, criteria, and programs to realize the opportunity for paper street use for public parks, trails, and landscape enhancement. Set standards for evaluation of revocable encroachment permit applications. Consider the surrounding streetscape

context and improvement objectives. (Implementation: Short-term)

Policy 4.5	**Support improved pedestrian and bicycle paths and associated amenity landscaping.**
Action 4.5.1	Design and implement these improvements as part of project approvals, streetscape plans, and Scenic Highways Corridor Protection Programs. Fill in "missing links" and obtain rights-of-way dedications needed for pathway continuity. (Implementation: Short-term)
Policy 4.6	**Consider parking lot landscape standard improvements.**
Action 4.6.1	Revise parking lot development landscape standards of the Municipal Code to be consistent with LSHE policies. (Implementation: Mid-term)
Action 4.6.2	Where feasible, require parking lot design that provides for pedestrian access to several destinations. (Implementation: On-going)
Policy 4.7	**Encourage aesthetic and environmental design improvements (e.g., drainage and pervious surfaces) to existing City parking lots and parking lot landscape design criteria.**
Action 4.7.1	Improve parking lots with added landscaping and other environmental design improvements where appropriate. (Implementation: On-going)

Policy 4.8	**Continue to support utility undergrounding and aesthetic improvements to remaining above-ground utilities throughout the city.**
Action 4.8.1	Re-evaluate City processes and other opportunities regarding utility undergrounding. Identify opportunities and strategies for a coordinated, financially and fiscally feasible/acceptable citywide utility undergrounding program. (Implementation: Short-term)
Policy 4.9	**Create a master plan of sidewalks, trails, and bikeways throughout the city. Identify trail connection opportunities to regional trails.**
Action 4.9.1	Require dedication and construction of recommended trail and sidewalk improvements as conditions of discretionary permit approval. (Implementation: On-going)
Action 4.9.2	Develop financing options for implementing the master plan of sidewalks, trails, and bikeways. (Implementation: Mid-term)
Action 4.9.3	Develop beach access landscape improvement criteria. (Implementation: Mid-term)
Policy 4.10	**Coordinate City maintenance in the public right-of-way with utility company and Caltrans maintenance activities.**
Action 4.10.1	Work with utility companies and Caltrans to encourage preferred pruning and maintenance techniques. Increase awareness of and encourage the use of preferred techniques. Advise agencies of the Municipal Code requirement for a City permit for tree removal in City right-of-way areas. Urge

coordination with the City on decisions about trees in all right-of-way areas, except in case of emergency. (Implementation: Mid-term)

Policy 4.11 **Implement a street tree, streetscape, and urban design program for City parkways.**

Action 4.11.1 Following the completion of the Downtown Urban Design Implementation Plan, form a subcommittee to update the recommended plant list. Those selected to serve on the subcommittee should have expertise on local flora, horticulture, pest infestation, and plant disease. In developing the plant list, the subcommittee should consider the effects climate change is having on pest infestation, plant disease, invasive plants, dwindling water supply, increased fire risk, and changes in coastal weather. (Implementation Mid-term).

TOPIC 5: HERITAGE TREES AND LANDSCAPES

GOAL: **Continue to enhance appreciation and protection of heritage trees and landscapes.**

INTENT: Laguna's heritage and candidate heritage trees are crucial to the quality and character of the local landscape. Historical landscapes, especially those painted by early plein air artists, and other landscapes associated with Laguna Beach history are also part of the City's heritage. The City will give priority to protection of these resources.

Heritage Trees

Trees contribute to the scenic beauty and environmental quality of Laguna Beach. They inhibit soil erosion, provide cooling shade, and help to cleanse the air of pollutants. Heritage trees embody community history, and environmental and cultural values. Tree management, especially of heritage trees in coordination with other landscape considerations, is important to preserving and protecting the beauty and character of Laguna Beach.

Heritage trees include some of the City's oldest trees. Oaks and sycamores may pre-date homesteading and the formation of the City. Other groups of trees (the Blue Gum and other Eucalyptus groves) date from the end of the 19th century. Throughout town, there are many trees that are large, prominent, rare, or unusual.

Protection of heritage trees is accomplished through a permit process that reviews proposals for major pruning, substantial alterations, removal, or construction within close proximity to heritage trees. Exceptions are made for trees that are hazardous or dangerous to life and property. The designation process requires nominated trees to be placed on the Heritage Tree List by the City Council through a public hearing process.

The Municipal Code states that a heritage tree should meet at least one of the following criteria:

1. A tree or stand of trees that is of historical significance and is older than fifty years;

2. A tree or stand of trees that has distinctive characteristics of form, size, or shape;

3. A tree or stand of trees associated with a person or an event of community-wide significance;

4. A large tree or stand of trees remaining from an original native stand of California live oaks, sycamores and toyons; or

5. A tree or stand of trees that is scenically prominent from public view areas.

Heritage trees at 2191 Ocean Way

In preparing the heritage tree candidate inventory in the 1995 Landscape and Scenic Highways Resource Document, the Landscape and Scenic Highways Task Force used similar criteria. Decisions as to which trees to include on the list were sometimes difficult to make, since the individual characteristics of trees vary, as does the degree to which trees meet the heritage tree criteria. The selected trees vary in arboristic quality, and there may be eligible trees that were missed in preparing the list.

However, the intent of the original heritage tree candidate list was to document outstanding trees as significant landscape resources. The candidate list set a general standard against which other trees that may be proposed for heritage designation may be evaluated. The candidate list was intended to recognize worthy trees and minimize the possibility that trees of less than heritage quality would be proposed as heritage trees. Many candidate heritage trees are within City rights-of-way. At the time of adoption of this LSHE, the City is maintaining only some of these trees.

The inventory was intended to guide future development that would accommodate a candidate tree, rather than cause its removal. However, a candidate tree would have to be officially designated as a heritage tree in order for the protections of the Ordinance to be applied. In order to encourage property owners to preserve heritage trees, incentives for designation and preservation of heritage trees on private property have been included in amendments to the Heritage Tree Ordinance. In addition, the City could revise the Heritage Tree Ordinance to include a definition of a Candidate Heritage Tree as “a tree that meets at least one of the criteria of the Heritage Tree ordinance, but that has not yet been placed on the Heritage Tree list by the City Council.”

In recent years, it has become more difficult for owners to obtain approval from the City Council to designate their trees as heritage trees because of view issues. Because of changes to the Ordinance that require heritage tree owners to prevent “unreasonable impairment of views,” the Ordinance changes the emphasis of the heritage tree program away from preservation of the trees, and brings the trees under scrutiny in relation to

neighboring views that they would not have if the trees remained undesignated. This has become a barrier to designation of heritage trees.

Only heritage trees or trees in the public right-of-way require a permit to be removed. Thus, many mature trees that are not listed as heritage trees can be removed without public input or permit requirement, if not otherwise directed as a result of a City project review process.

However, “significant trees” are protected in the Land Use Element by requiring the preservation of significant trees in conjunction with development proposals, with some exceptions. These include trees of large size, historical significance, or unique appearance, some of which are listed on the City's Heritage Tree list or Candidate Heritage Tree list. However, even with City provisions for protecting heritage and significant trees, unauthorized tree removals can take place. Measures are needed to prevent removal of significant trees without City review.

Heritage Landscapes

The U.S. National Park Service program, “Historic American Landscapes Survey” (“HALS”) documents important landscapes in the United States in order to provide recognition and a basis for public education and appreciation. The landscape of Laguna Beach, which includes developed areas, the surrounding greenbelt, and the cultural influences of landscape art and environmental preservation, all combine to form a unique regional landscape that has been accepted for national HALS recognition.

The HALS submittal illustrates and documents how important the natural landscape has been to the creation of our present-day community. Without the rough and dramatic landscape, the cliffs, coves, and canyons, the area would have been included in a neighboring ranch, and would have been unavailable for the homesteaders. Without the patchwork of homesteads, Laguna could have been developed much later in perhaps a master-planned approach like Newport Coast. The area would have been off limits to artists, and Laguna’s artistic heritage would not have developed. Our treasured Historic American Landscape is the foundation of the essence of Laguna Beach as we know it today.

The HALS program highlights the extraordinary aesthetic and cultural value of the Laguna Beach landscape as a world-class natural and cultural feature. Such recognition can reinforce public understanding of the resource and hence a determination to protect it.

Noteworthy aspects include the association of the Laguna Beach landscape with the founding of the Laguna Beach art colony. Plein air artists came to Laguna Beach because of its striking and inspirational landscapes, and consequently influenced the reputation, character, and

traditions of the City. Documenting the locations of the landscapes and views they painted would be a possible follow-up to involve the public.

Another example of the relationship of the landscape to significant historical events is the Greenbelt itself. The 1989 "Walk in the Canyon" by thousands of residents led to a major portion of the Greenbelt being acquired from The Irvine Company through a bond measure passed by nearly 80% of voting Lagunans.

Policies

Policy 5.1	**Foster community appreciation for and involvement in the heritage tree program.**
Action 5.1.1	Implement an educational program to inform residents about heritage trees. (Implementation: Short-term)
Action 5.1.2	Encourage property owners to designate and protect heritage trees. Reduce barriers to designation, including fees and delays. Consider incentives, grants for maintenance, awards, and recognition for owners of heritage trees. (Implementation: Short-term)
Action 5.1.3	Consider assigning the heritage tree implementation program to the Heritage Committee. Consider qualifications of selected committee members in relation to knowledge of trees and historic landscapes, and/or provide training to members. (Implementation: Short-term)
Policy 5.2	**Because listing of Heritage Trees is voluntary, continue to publicize and support the utilization of the heritage tree incentive program to encourage property owners to apply new trees for listing.**
Action 5.2.1	Evaluate the existing incentive program and make recommendations to improve it if needed. (Implementation: Short-term)

Policy 5.3	**Promote maintenance practices for heritage trees that will result in optimal shape and character.**
Action 5.3.1	Consider funding to assist property owners with the proper maintenance of heritage trees. (Implementation: Mid-term)
Policy 5.4	**Identify candidate heritage trees on City property and rights-of-way, and promote inspection and proper maintenance of such trees.**
Action 5.4.1	Consider their designation as heritage trees. (Implementation: Short-term)
Policy 5.5	**Improve communication about and protection for all heritage trees.**
Action 5.5.1	Notify owners of heritage trees about the requirements and benefits of the Heritage Tree Ordinance. (Implementation: Short-term)
Action 5.5.2	Coordinate amongst Community Development, Code Enforcement, and the Police Department regarding enforcement of the Heritage Tree Ordinance prohibitions on removing heritage trees without permits. (Implementation: Short-term)
Policy 5.6	**Preserve heritage trees and when feasible preserve candidate heritage trees, and other significant trees.**

Action 5.6.1 Through the City review processes, encourage preservation of significant trees on site in order to achieve consistency with the City Design Guidelines landscape criteria. (Implementation: Short-term)

Action 5.6.2 Protect heritage trees from removal before and during the project review processes and when feasible, preserve candidate heritage and significant trees (zoning, Design Review board, Planning Commission, City Council). Include provisions to this effect in Section 12.08 of the Municipal Code. (Implementation: Short-term)

Action 5.6.3 Require permits to remove heritage trees. (Implementation: Short-term)

Action 5.6.4 Provide clear procedures for City staff and police in stopping unauthorized removal of significant trees until the appropriate reviews have taken place. Define how citizens can effectively report removals in process, especially after-hours and on weekends. (Implementation: Short-term)

Action 5.6.5 Define "Candidate Heritage Tree" as part of the Heritage Tree Ordinance as "a tree that meets at least one of the criteria of the Heritage Tree ordinance, but that has not yet been placed on the Heritage Tree list by the City Council." (Implementation: Short-term)

Action 5.6.6 Develop an ordinance that requires posting of a bond to assure that trees designated for preservation are not harmed during the construction of a development project. Require signed agreement from property owner to continue to preserve the designated trees, with this agreement passing to subsequent owners. (Implementation: Short-term)

Policy 5.7 **Keep heritage tree and candidate heritage tree documentation up to date.**

Action 5.7.1 Assure heritage trees are noted in the City's GIS system and property files. Assure they are documented in the Residential Property Reports. (Implementation: Short-term)

Action 5.7.2 Periodically update the Candidate Heritage Tree list. (Implementation: On-going)

Policy 5.8

Promote historic landscape locations that were subjects of the early plein air painters and that represent Laguna Beach.

Action 5.8.1 Participate in and support community projects to add appropriate documentation and exhibits to the Historic American Landscapes Survey (HALS) housed in the Library of Congress. (See Glossary). (Implementation: Short-term)

Action 5.8.2 Foster appreciation for Laguna Beach historic landscapes, including plein air painting events in historic locations. (Implementation: Short-term)

TOPIC 6: FIRE SAFETY

GOAL: **Prioritized protection of lives, homes, and businesses against dangerous wildland fires while maintaining high value landscape ecosystems and aesthetics to the greatest extent practical.**

INTENT: Protection of the City against the ever-present danger of catastrophic wildland fires must be our community's foremost priority. Proper landscape installation and maintenance is a crucial component. The City will implement these fire-safety measures in coordinated consideration for the ecological and aesthetic values that are also important to the community. Indeed, we must focus on fire prevention to protect and preserve our natural environment and architectural heritage as well as our resident's homes.

Laguna Beach is surrounded and interlaced with coastal sage scrub and chaparral vegetation that is highly susceptible to fire, especially during drought periods. Its neighborhoods are made up of many older wooden residences interlaced with vegetation. Steep topography and narrow access roads can make firefighting difficult. Dealing with these conditions requires a clear and comprehensive understanding of fire behavior, considered in balance with other general plan goals related to ecological health, community character, and aesthetics.

Wildland fires typically immediately affect residential areas adjacent to the canyons and hillsides. However, the 1993 "Laguna Fire" demonstrated that such a conflagration could quickly spread beyond the wildlands interface area to the rest of the community. Many homes that were destroyed in that fire were not adjacent to canyons or the wildlands but were ignited by flying embers. These flying embers, which can travel over a mile, not only ignited the structures, but also the landscaping surrounding the structures. Although the emphasis has been on preventing fires coming from inland open space areas under Santa Ana wind conditions like the 1993 fire, a destructive fire can also occur on non-critical weather days when the typical onshore winds blow up coastal canyons. Due to the density of structures in the City, any fire can quickly become catastrophic.

There are multiple factors involved in risk exposure to wildfire, including weather conditions, topography, fuel moisture, building location and

design, type and density of vegetation, landscape fuel treatments, wind patterns, and fuel modification. There is no practical way to eliminate the risk, but it can be managed or partially mitigated. The most effective elements to concentrate on are fire prevention, fire suppression when a fire occurs, and siting urban improvements in the least vulnerable areas. While weather is the primary determinant of risk to loss of assets to fire; topography, slope, fuel moisture, and proximity of structures to each other all contribute to this risk analysis.[1] Vegetation management is most meaningful in the areas immediately surrounding structures.[6]

The Safety Element of the General Plan includes extensive fire hazard information, and fuel modification and property maintenance policies and recommendations. This element emphasizes the issues related to balancing sound fire protection programs with landscape values. The Landscape and Scenic Highways Resource Document outlines the details of implementing fire safety components in community landscapes. It is the goal of these documents to provide for landscapes that are both safer from fire and that are beautiful and functional living environments.

Very High Fire Hazard Severity Zones

In the mid-1990s, in response to the Oakland Hills Fire of 1991, the California legislature adopted Government Code §51175 which provides for designation of Fire Hazard Severity Zones throughout the State. These zones are determined based on consistent statewide criteria including fuel loading, slope, fire weather, and other factors including the possibility of severe winds. These areas have been mapped by the State, and the Laguna Beach very high fire hazard severity zones are shown on the City's geographic information system (GIS) maps. 87.8% of the City is included in the Very High Fire Hazard Severity Zone (VHFHSZ). State regulations for these zones include maintenance of defensible space, fuel modification, fire-protective building code requirements, and minimizing flammable materials in the vicinity of buildings.

Government Code §51184a exempts habitat for endangered or threatened species, or candidates for endangered or threatened species, lands in a natural state that are habitats for plants and wildlife, open space lands that are environmentally sensitive parklands, and other lands having scenic value. It recognizes the importance of preserving and restoring native species, minimizing water consumption, and preventing erosion.

Government Code §51179b provides that a local agency may, at its discretion, exclude from the requirements of Section §51182 an area identified as a Very High Fire Hazard Severity Zone following a finding supported by substantial evidence that the requirements of Section §51182 are not necessary for effective fire protection within the area. Conversely, Government Code §51175c states, "It is not the intent of the legislature to limit or restrict the authority of a local agency to impose more

restrictive fire and public safety requirements, as otherwise authorized by law."

Defensible Space

Buildings and structures within the Very High Fire Hazard Severity Zone of a Local Responsibility Area (LRA) shall maintain defensible space as outlined in Government Code §51175-51189 and any local ordinance of the authority having jurisdiction. Government Code §51182 prescribes a 100' defensible space area between an improved property and a potential wildland fire. A greater distance may be required by state law, local ordinance, rule, or regulation. The first 30' around the structure is to receive the most intense fuel management, with variable treatment within the required 100' perimeter. The potential for erosion should be minimized or mitigated. The regulations allow for single specimens of trees or other vegetation that is "well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or other nearby vegetation." Additionally, the code requires a guidance document that provides "regionally appropriate vegetation management suggestions that preserve and restore native species, minimize erosion, minimize water consumption, and permit trees near homes for shade, aesthetics, and habitat." The code also requires removal of portions of trees within 10' of a chimney, dead wood from trees overhanging buildings, and keeping roofs free of vegetative materials. The 100' defensible space area is sometimes difficult to achieve due to existing development on private property.

The City's vegetation management program helps to create defensible space beyond the individual lots. The City also uses vegetation management to ensure critical evacuation routes for the community are maintained and passable in event of a wildfire. In addition to the stated constraints, the City considers cost effectiveness of treatments, site suitability for project design, terrain, geological stability, biological sensitivity, presence of archeological and paleo resources, and resident and stakeholder input in developing effective fuel management programs for new projects.

Other aspects of defensible space apply to all areas of the City. These include arranging access on the property for ease of firefighting and maintaining properties to minimize buildup of flammable materials that could ignite and cause fire to spread to the home. It is necessary to provide space and access around structures to be protected so that firefighters can safely and effectively maneuver. There are many areas of the City where a fire apparatus has difficulty accessing a neighborhood due to narrow streets, non-existent or tight turnarounds, and parked vehicles. Minimizing dead, dying, and flammable materials in the vicinity is also important. This includes avoiding wood fences, firewood, flammable furniture, and dead vegetation in the zone surrounding

structures. Paved and gravel patios and pathways and irrigated planting in the vicinity of the house can be helpful both in providing firefighter access, and depriving a fire of fuel. These measures are components of creating "defensible space" around structures within the urbanized areas.

Guidelines for the defensible space portion of the Vegetation Management program will be developed to supplement the existing document. In order to provide defensible space and preserve the City's landscape character, provisions that emphasize best management practices should be included where possible.

Fuel Modification

Fuel modification deals with the treatment of vegetated areas surrounding structures and evacuation routes. Fuel modification/management involves increasing moisture content in the vegetation with irrigation, reducing fuel loading by pruning or grazing, and removing dead and dying vegetation, highly flammable vegetation, trees and shrubs, and invasive plants, thus moderating potential fire hazard. The City has created and continues to invest in fuel modification zones around the perimeter and interior canyons of the City.

Fuel modification breaks up the continuity of fuels and thins the vegetation, reducing the amount of flammable vegetation. Care should be taken with removals so as not to facilitate erosion or cause a type conversion from shrubs to grasslands.[3] Overgrazing can cause conversion to grasses and weeds which is an environmental and fire protection concern.[2,4,7,8] Although fires may burn more rapidly through grasslands, the fire does not burn as intensely and produces less heat, allowing firefighters greater opportunity to defend homes and other structures.

In some areas, native Opuntia (prickly pear cactus) can be planted in managed areas. This native succulent has potential to slow a fire because of its ability to store water in its leaves. It has the added benefit of providing wildlife habitat. Other methods of preventing conversion of modified areas to weeds and grasslands is to apply a mulch of shredded branches removed in the thinning process, installing approved plants, and maintaining a closed canopy of existing shrubs when pruning away dry and dead material. Fuel modification projects should support continued actions by the Fire Department to scientifically and efficiently conduct vegetation management with the least environmental impacts as possible, and not limit the Fire Department's options to mitigate impacts.

Very High Fire Hazard Severity Zones often contain sensitive native vegetation, including endangered, rare, and locally important plants and animal habitat. Consequently, fuel modification programs must include measures to protect sensitive plant species and habitat for rare,

threatened, or endangered wildlife species. Goat grazing is not appropriate in sensitive habitat areas. Carefully monitored hand crews are effective in reducing fuel load. However, both goat grazing and hand crews need to be monitored carefully. Qualified biologists, ecologists, and fire management experts shall continue to be involved in these practices to determine how improvements can be made to protect native plant communities and to provide required fire safety. Alternative approaches to fuel modification design should be considered where appropriate, when it would enhance fire safety.

Fuel modification can occur on private or public land, but modification performed by private property owners cannot go beyond property lines without agreement by the adjacent property owners. In cases where fuel modification is needed on public land, a fuel modification easement or public property permit can be granted to the adjacent private party assigning the private party maintenance and liability responsibility. If these agreements are obtained, they need to be recorded on the deed for the property.

Owners of undeveloped properties and lots should be required to conduct site planning from the beginning of project design to create proper fuel modification zones and setbacks, and to locate structures at the safest locations in terms of fire danger. Responsibility for the continued maintenance of fuel modification areas also needs to be defined, structured, and deed recorded.

Fire-Wise Planting

Although much has been written regarding fire-resistant or fire-retardant plantings, any plant will burn under certain conditions. However, reasonable planting selections combined with irrigation, sound arrangement, spacing, and good maintenance can improve the fire resistance of the area surrounding a structure and provide for fire suppression tactics.

Lists of suggested plants suitable for fuel modification zones have been prepared by many public agencies, including the Orange County Fire Authority and the Los Angeles County Fire Department. The Orange County list that Laguna Beach also uses includes appropriate plant species, plants acceptable on a limited basis, and prohibited plants. This list is part of the Laguna Beach Fire Department “Vegetation Management Guideline.” There is a separate invasive plants list that applies throughout the City.

In addition, the Laguna Beach Vegetation Management Guideline includes a list of “target species” for removal from fuel modification zones only. When proposing development of a new house or major remodel, only one target species is allowed to remain per property. Applicants with

more target tree species on their properties are required to remove them unless they submit an Alternative Means and Methods report and receive approval by the Fire Department. This procedure can increase the time and cost involved in preserving existing trees.

There are several ways of improving the fire safety effectiveness as well as preventing landscape deterioration related to target species prohibitions:

- **Validate the lists:** The lists should be further refined based on research that documents the effectiveness of the recommended species restrictions in significantly reducing fire hazards, in comparison with implementing scientifically based fire-wise maintenance practices.

- **Consult other agencies:** Trees and shrubs on the target species, and/or approved lists, should also be correlated with similar lists from other agencies.

- **Limit application:** Applying the Target Species list only to fuel modification areas allows many of the iconic trees throughout Laguna Beach to continue to grow in appropriate areas as important features of the landscape.

Alternative Means and Methods

Alternative Means and Methods (AM&Ms) is a procedure allowed by the Fire Department under some conditions to modify standard requirements by providing special conditions and long-term maintenance commitments to reduce fire hazard that meets or exceeds the intent of the regulation(s). These can include vegetation management, increased hardening of the structure, and special pruning guidelines for trees that would not otherwise be approved by the Fire Department. All AM&Ms must be prepared by a Fire Management Consultant and approved by the Laguna Beach Fire Department. Along with vegetation fuel management, AM&Ms for fire protection such as PhosChek distribution through high pressure nozzles at the wildland edge can reduce fire risks when standard fuel modification or goat herd fuel reduction are neither feasible nor desirable, or in combination with fuel reduction. The Alternative Means and Methods process provides a system to review fire protection as it relates to landscape, for consistency with current sustainability and prudent life-safety and structure protection requirements. If requirements to remove existing vegetation were more flexible, it would relieve the need to pursue alternative options and reduce costs for applicants. Compilation of approved AM&Ms could be part of updating the Landscape/Fuel Modification Guidelines and Maintenance Program/Vegetation Management Guideline.

Policies

Policy 6.1 **Require appropriate fire preparation and prevention techniques as a condition of wildland urban interface development and in the designated Very High Fire Hazard Severity Zone (VHFHSZ). Implement the guidelines and standards in the Safety Element, the other adopted City Fire and Building regulations and documents (i.e. Vegetation Management Guidelines and Requirements), and other City General Plan elements.**

Action 6.1.1 Periodically review and update (as needed) criteria, techniques, and policies including the Land Use Element. Refer to fire behavior models and consult with the Fire Department and other fire agencies to determine best practices and ornamental landscape performance in fire events. Develop lists of recommended and non-recommended plants that distinguishes among plants for fuel modification zones, areas away from the wildland/urban edge, target plants, and invasive plants. (Implementation: On-going)

Action 6.1.2 Periodically review and update as needed the Fire Department's Landscape/Fuel Modification Guidelines and Maintenance Program/Vegetation Management Guideline. (Implementation: On-going)

Action 6.1.3 Evaluate and consolidate lists of recommended, not recommended, and invasive plants for fuel modification areas and for the City as a whole. Include fire, landscape, and ecology/botany professionals in this effort. (Implementation: Short-term)

Action 6.1.4 Clarify in City guidelines and regulations that target species restrictions apply only to fuel modification zones and not to Very High Fire Hazard Severity Zones, or to City-maintained street trees or other City-maintained trees that are at least five feet from structures. (Implementation: Short-term)

Action 6.1.5 Explore Alternative Means and Methods (AM&Ms) as an option to preserve existing trees and allow new trees. Develop Best Management Practices/AM&M measures that could allow retention of trees without the necessity for an individualized AM&M report, subject to the approval of the Fire Department. (Implementation: Mid-term)

Action 6.1.6 Periodically review the City's fuel modification zones and proposed expansions. Ensure that the latest technologies and methods are being used to both protect the public and the environment. (Implementation: Short-term)

Action 6.1.7 Develop a Defensible Space component of the Vegetation Management guidelines. Include consideration of preserving the traditional landscape character of Laguna Beach with approaches that will not compromise fire safety, such as:

- Avoid removal of trees and vegetation where feasible by providing and enforcing best maintenance practices.
- Consider flexibility in plant spacing requirements that recognizes the importance of having trees and shrubbery to screen tall facades, create shade for roofs and outdoor living spaces, provide habitat, and blend with neighboring plantings.
- Allow and encourage irrigation of vegetation for fire protection during critical fire periods.
- Budget appropriately to provide maintenance oversight and enforcement.
- Educate and involve the public in developing and implementing policies.
- Develop informational material for ornamental vegetation planting and maintenance for fire prevention.

Policy 6.2	**Address coastal sage scrub and chaparral areas that have been converted into grasslands and prevent other conversions from occurring.**
Action 6.2.1	Maintain areas that have been converted and prioritize budgeting for their restoration. (Implementation Mid-term)
Action 6.2.2	Study means to reduce adverse environmental impacts of goat grazing and to enhance native habitat protection in areas subject to fuel modification. (Implementation Mid-term)
Policy 6.3	**Promote implementation of defensible space and firefighter access in fuel modification or VHFHSZ areas within existing developments. Require defensible space and firefighter access for all new development or major remodels in fuel modification or VHFHSZ areas. Ensure fire department apparatus access and water supplies are accessible for firefighting. Encourage fuel modification on existing private development to provide for effective fire prevention.**
Action 6.3.1	As part of permit review, continue to require new development to comply with defensible space and firefighter access requirements through landscaped areas and fire-resistant plant materials with a maintenance program. (Implementation: Ongoing)
Action 6.3.2	Disseminate relevant information to wildland urban interface and VHFHSZ property owners. (Implementation: Mid-term)
Action 6.3.3	Pursue community education program funding and volunteer efforts that include a demonstration plot of fire-retardant vegetation and distribution of a brochure detailing recommended planting guidelines for fire hazard areas. (Implementation: Mid-term)

Action 6.3.4 Support an annual community-wide cleanup day to promote safety awareness. Promote landscape maintenance to create and/or maintain defensible space, including vegetation management. (Implementation: Short-term)

Action 6.3.5 Document the development thresholds that require a property owner to comply with fuel modification requirements. (Implementation: Short-term)

Policy 6.4 **Promote routing of access roads, trails or fire roads, where feasible, within the fuel modification areas to minimize additional removal of native vegetation.**

Action 6.4.1 Provide for such access and implement through the City project development and plan check process. (Implementation: Ongoing)

Policy 6.5 **As a condition of development for new construction and major remodels, require private responsibility for development and maintenance of fuel modification zones and programs, including a recorded deed restriction acknowledging the fire hazard potential and maintenance responsibility.**

Action 6.5.1 Assure review and compliance in the plan check, permit, and inspection process. (Implementation: Ongoing)

TOPIC 7: LANDFORM STABILITY

GOAL: **Minimize potential for landslides and debris flows through landscape and development management strategies.**

INTENT: The City has regulations and processes to promote landform stability. Encouragement of proper selection and deployment of sound landscape, irrigation, and development approval practices, particularly on seaside bluffs, hillsides, and areas adjoining hillsides (especially those that have experienced recent slope instability) is crucial to this important public safety consideration.

Landscape planning is needed to support and improve City regulations and standards to protect the community against landslides and debris flows, and to minimize their occurrence where possible. Promotion of landform stability using best management practices for selection of planting vegetation, irrigation, and control of runoff within coastal bluffs and undeveloped and/or developed areas, is crucial to this safety consideration.

Improper landscape irrigation and/or placement of pools and other large water features associated with development projects in Laguna Beach's hillside communities can lead to soil instability problems; including landslides, slope or bluff erosion, and poor drainage and debris flow as cited in FEMA Publication 182, "Landslide Loss Reduction: A Guide to State and Local Government Planning." Soils vary widely in their capacity to hold water, and hillside soils may be shallow, poor, or nonexistent. Site analysis of areas to be landscaped can indicate soil structure and uniformity, how much water should be applied, and how much runoff is likely to occur. Excess irrigation and/or inappropriate siting of pools and other large water features not only produces run-off and consequent erosion, the water that penetrates the soil can migrate to lower strata, lubricating slide planes and generating large-scale instability.

According to various geotechnical reports commissioned by the City, such elevated groundwater levels "perched water" conditions have triggered highly destructive recent landslides, notably the 1980 Del Mar Landslide and the 2005 Bluebird Canyon Landslide. The best management practices for consideration of proposed vegetation and landscape maintenance should include careful evaluation of the earth materials, steepness of the slope, hydrology, and land usage.

Bluebird Canyon Landslide June 2005

While fire concerns in relation to landscaping are dealt with in Topic 6, slope erosion and stability must also be also addressed. Adjacent to undeveloped natural areas, planting can gradually transition from exotic plants to California natives, and other drought-tolerant, fire-retardant plants. Plants should be selected for their slope stabilizing and soil erosion prevention qualities. Site drainage is important in managing erosion and preventing slope failure. The guidance of a professional is necessary to determine where on-site percolation systems/bioswales are appropriate, or where expeditious transport of drainage water from the site is the best option.

Many coastal bluffs in Laguna Beach are composed of more than one type of earth material; commonly a poorly consolidated, sandy, gentle sloping, marine terrace overlying a dense, steep, bedrock sea cliff. Due to the complex nature of the coastal bluff, deep-rooted plant species (native or non-native) should be considered in conjunction with a suitable mesh reinforcement, proper landscape maintenance, and surface drainage.

In the aftermath of a wildfire, existing evidence argues against seeding with non-native grasses because of the negative influence on natural biodiversity and its ineffectiveness as an erosion control method. In order to mitigate soil erosion and possible debris flows in the aftermath of a wildfire, generally, native plant species should be considered in conjunction with drainage improvements to reduce runoff and increase infiltration.

Policies

Policy 7.1 **Encourage landscape and development planning and management strategies to avoid slope instability and debris flow problems. Select the best management practices for proposed vegetation and landscape maintenance to maintain and improve landform stability as cited in FEMA Publication 182, "Landslide Loss Reduction: A Guide to State and Local Government Planning," or updated/successor publications from Federal and State public safety authorities.**

Action 7.1.1 Disseminate relevant information to property owners. Avoid use of plants with high water needs, including turf, in slope-failure prone areas including bluffs, hillsides, and areas above them. Use native and drought-tolerant plants with varying root penetration depth for erosion control and slope stability. Design hillside slope irrigation systems to avoid runoff and erosion. Use water conservation techniques. (Implementation: Short-term)

Action 7.1.2 Require these strategies in landscape plans and assure implementation through plan check review and inspections, building upon LSHE policies and actions. (Implementation: Short-term)

Action 7.1.3 Identify sensitive landform areas and require the establishment of a geologically appropriate best management practices for proposed vegetation, slope irrigation, and drainage systems within a certain area, including soil moisture sensors and weather-sensitive irrigation systems. (Implementation: Mid-term)

Action 7.1.4 Investigate the feasibility of incorporating groundwater monitoring for sensitive landform areas that are susceptible to landsliding into the City's Geographic Information System (GIS) sustainability model. (Implementation: Short-term)

Action 7.1.5 Establish landscape guidelines to be implemented in the aftermath of a fire to mitigate against soil erosion

and possible debris flows. Include drainage improvements to reduce runoff and increase infiltration. Guidelines would emphasize allowing native plants to regenerate. They would recommend against seeding with non-native plants in favor of plantings native to the area. (Implementation: Short-term)

Policy 7.2 **Encourage drainage systems that respond to the characteristics of the underlying strata, allowing for on-site percolation where appropriate and for removal of run-off from the site where needed.**

Action 7.2.1 Develop drainage standards that address percolation and export of run-off. (Implementation: Mid-term)

Action 7.2.2 Consider the use of straw wattles and constructed earth swales for selection of suitable options for drainage improvements to reduce runoff and increase infiltration in wildland areas. (Implementation: Short-term)

Action 7.2.3 Ensure at least annual City maintenance inspection of all terrace drains on private property located proximate to sites of prior landslides and other areas of known slope instability. Prioritize timely, consistent code enforcement activity to make certain that such drainage systems are frequently cleaned and properly maintained by the responsible parties. (Implementation: Short-term)

TOPIC 8: DESIGN AND MAINTENANCE

GOAL: **Create a well-maintained sustainable and regenerative community landscape by utilizing feasible, cost-effective, and ecological principles.**

INTENT: The City will carefully manage and maintain landscape based on sound urban design principles, and by conserving habitats and natural resources. Landscapes will be planned and maintained in a manner that minimizes safety hazards to optimize consumption of energy, water, raw materials, and generation and recycling of waste.

Landscape Design and Maintenance goals include:

- Properly select, locate, and maintain trees to ensure continued beauty, health, view preservation, and to minimize safety hazards;
- Establishing beneficial ecological and biological functions in the manmade landscape and maintaining them in natural areas;
- Design plantings to optimize use of water and energy, and to provide shade and dust filtration in a manner consistent with the goals and policies in the City Climate Action plan, Sustainability Element and Laguna Beach County Water District's water conservation policy;
- Minimizing maintenance costs—becoming self-maintaining and requiring little intervention;
- Choose plant materials that are not invasive and harmful to Laguna Beach's sensitive habitats; and
- Reinforcing the cultural context in relation to history and aesthetics.

Laguna Beach County Water District water-wise and fire-safe garden

The context and rationale for these goals are described in the sections below.

Habitat and Invasive Plants

Ecologically, Laguna Beach is a system of interacting natural and manmade habitats. The habitats within the natural open space

surrounding the city have evolved over geologic time and are generally self-sustaining and regenerative without human intervention.

By contrast, manmade ornamental landscape habitats are typically fragmented, less ecologically stable, and thus require significant inputs of irrigation, fertilizers, pesticides, and maintenance. Sometimes plant materials selected for their aesthetic or practical qualities can become invasive. Plants such as pampas grass and giant reed (Arundo donax) overwhelm native plant communities, create fire hazards, cause overpopulation of non-native rodents, and provide no useful habitat for plants and wildlife. The recurring removal of such invasive plants without complete eradication and restoration of native plant communities is an expensive, maintenance-intensive cost to the community.

With coordinated consideration of these issues in native and manmade landscape design and management, Laguna Beach can move closer to a more sustainable community ecosystem. By choosing compatible plant materials, the community can maintain high value natural habitats in a balanced state, restore those that have been damaged, and create more stable manmade landscapes with higher aesthetic values, and lower maintenance costs. Consult the California Invasive Plant Council for an up to date of list of California invasive plants.

Drainage

Properly designed and installed landscape drainage systems are particularly important for maintenance of landform stability, a critical issue in Laguna Beach's hillside environment. Utilization of "ecosystem services" such as wetlands in drainage detention basins provide an effective, lower cost contribution to maintenance of natural watercourses and ocean water quality. Landscape solutions incorporating natural percolation and wetlands into drainage planning can provide beauty and wildlife habitats, while cleaning water naturally and reducing unwanted flows to creeks and the ocean. They also provide a lower cost way to maintain natural watercourses.

Impervious surfaces in the urban environment can be deleterious to drainage and water quality by increasing runoff rates and decreasing the time of concentration of storm and other water flows. Such conditions increase potential erosion through increased water volumes and velocity, increase drainage system size requirements, and allow for pollutants to be discharged directly into streams or the ocean without treatment.

Laguna Beach has implemented measures to reduce impervious surfaces and to improve drainage for water quality and safety benefits. Street cleaning and water filtration practices protect the water quality of the ocean and other receiving waters. Upgrades to the wastewater system in

the early 2000's have also improved ocean water quality by reducing accidental wastewater spills.

Further reduction (or reduction in the rate of increase) of impervious surfaces within the community would have the benefit of decreasing urban runoff and allowing its associated pollutants to be treated naturally through soil percolation and filtration. In addition, using pervious surfaces will result in less runoff and slower accumulation of downstream flows that cause flooding or impede groundwater replenishment. This allows flood control facilities to better handle flood flows and decreases the need for larger flood control channels and drainage pipes.

With the likely evolution and increasing cost-effectiveness of remote sensing monitoring technologies (e.g., Geographic Information Systems and drones) during the time period that this LSHE is in force, it may become feasible for the City to more precisely measure its total impervious surfaces and establish citywide standards and locations for an optimal impervious to pervious surface ratio. The LSHE provides policy direction to prompt research on and utilization of such technologies as they become feasible.

Plant Materials Selection

The proper selection of plant materials addresses all of the above design and maintenance considerations along with view management, neighborhood character, and the conservation of the artistic milieu portrayed by landscape painters both past and present. Such selection and layout of plant materials for ornamental landscaping is crucial to maintaining the charm and historic character of Laguna Beach's landscape. This includes reconsidering design concepts that derive from landscaping in regions with wetter climates. For example, extensive local use of turf grass reflects the cultural influence of landscapes of the American East Coast and Midwest, and England, where rainfall is abundant and lawns are a standard and practical ground cover.

A sustainable ornamental landscape plan and plant palette:

- Is suited to the local environment and intended purpose;
- Has plants that are compatible with each other in terms of growth patterns and aesthetics;
- Creates a diverse plant community that minimizes susceptibility to invasive pests;
- Minimizes requirements for supplemental irrigation, fertilizers, pesticides, and maintenance; and

- Reduces equipment, labor, noise, and consumption of fossil fuels involved in maintaining ornamental landscapes.

The creation of water-efficient landscapes involves more than simply installing individual drought-tolerant plants. Companion planting and grouping is a technique that mirrors native ecosystems adapted to drought, soils, ocean, and weather conditions unique to Laguna Beach. Landscape plans need to consider the life span, growth characteristics, root type and depth, and aesthetic functions of each plant. Plants that require similar growing conditions and are complementary in form, color, and texture create a sense of harmony in the landscape.

The LSHE seeks to raise awareness of these considerations and, through practical policies and actions, create improved and sustainable ornamental landscapes through increased utilization of ecological principles in landscape design. Suggested plant palettes are included in the Landscape and Scenic Highways Resource Document. Additional plants meeting the above criteria can expand and enhance sustainable planting opportunities.

Lighting, Glare and Heat

Laguna Beach has adopted ordinances to reduce artificial lighting and glare from buildings and outdoor areas. Along with allowing starry night sky views for community enjoyment, efficient lighting reduces electricity consumption and costs. It contributes to a more sustainable community by reducing fossil fuel use for electricity production and greenhouse gas emissions. Evolution of increasingly efficient landscape lighting technologies can also contribute to overall sustainability goals. Properly placed plantings can reduce glare from reflective structures and heat gain from buildings and paved surfaces, thus improving comfort and reducing artificial cooling costs.

Agricultural Landscape

Local production of foodstuffs is a component of community sustainability. Such production in community gardens, commercially, or in the informal landscape, offers the potential for fresh and thus more nutritious food for local consumption, contributing to public health benefits. Community gardens and farmer's markets not only provide healthy food, but social gathering places within the community.

The agricultural landscape in Laguna Beach focuses on individual fruit and vegetable gardens, small plot commercial agriculture, hydroponics, community gardens, and locally sourced produce. Hotel and restaurant kitchen gardens can also be part of this mix. These all contribute to sustainability by increasing locally sourced organically grown edibles. See

the Sustainability Element for policy and implementation direction for larger sustainability strategy and goals.

Maintenance

Landscape maintenance can be water, energy, labor, and waste intensive. Efficient maintenance techniques can contribute to sustainable and healthy landscapes, add beauty, reduced costs, and reduce safety hazards of private garden and public park maintenance.

Reduced landscape maintenance contributes to a sustainable landscape. LSHE policies and actions to be taken by the City for its parks, and by private individuals, will benefit sustainability implementation, achieve economic and financial efficiencies, and improve community design and aesthetics.

Examples of approaches that can reduce landscape maintenance include:

- Installing lawns only in areas where they provide functional purposes such as access, gathering places, or play areas;
- Planting perennials and permanent ground covers and shrubs instead of annual plants that are replaced several times a year;
- Planting trees and shrubs that naturally grow to the desired height and therefore require little or no pruning;
- Choosing plants that are adapted to local soils conditions and require minimal or no irrigation; and
- On-site and nearby composting to eliminate the need for transport of green waste to off-site recycling centers or landfills, reduce the need for fertilizers, control weeds, improve plant health, and reduce water consumption.

Policies

Habitat

Policy 8.1 **Encourage landscape layout and plant material selection to create wildlife habitat opportunities compatible with ecological characteristics of adjacent natural habitat, human habitation, fire safety, and landform stability, where applicable.**

Action 8.1.1 Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines. (Implementation: Mid-term)

Policy 8.2 **Assure that landscape planning and maintenance is compatible with best and cost-effective habitat management practices, including fuel management, consistent with maintaining fire safety. Refer to Natural Community Conservation Plan (NCCP), and California State Wildlife Action Plan for habitat management practices.**

Action 8.2.1 Review all applicable City programs for consistency with habitat management practices. Update practices as new methods and technologies become available. (Implementation: Mid-term)

Action 8.2.2 Develop informational materials for applicants. Include on zoning plan check and design review checklist and guidelines. (Implementation: Mid-term)

Action 8.2.3 Continue to assure that native vegetation is not removed without proper review, per Title 12 of the Municipal Code, and that all required restoration efforts are implemented as may be required. (Implementation: Short-term)

Drainage

Policy 8.3	**Minimize impervious surfaces and maximize drainage infiltration in new streetscapes and other new development, taking into account the recommendations of the geotechnical consultant.**

Action 8.3.1	Evaluate thresholds, effectiveness, and standards for Water Quality Management Plans for new projects and improve where needed. (Implementation: Short-term.)
Action 8.3.2	Include minimizing impervious surface as part of Scenic Highway Corridor Protection Programs and other streetscape plans. (Implementation: Mid-term)
Action 8.3.3	Evaluate the ordinance standards for the amount of hardscape allowed in residential and other urban zones, and improve where needed. Consider requiring permits for site paving to ensure a balance of landscaped and hardscape areas. (Implementation: Short-term)
Action 8.3.4	Limit expansion of driveway aprons and addition of parking pads to prevent excessive paving along street frontages. (Implementation: Short-term)
Action 8.3.5	Implement the City Local Implementation Plan as required by the NPDES MS4 permit to minimize impact from urban runoff and improve water quality. (Implementation: On-going)

Policy 8.4	**Where indicated by geological conditions, minimize impervious surfaces and maximize drainage infiltration in existing properties, and identify opportunities to increase drainage infiltration including conversion of impervious surfaces to pervious surfaces.**

Action 8.4.1 When technologically feasible and cost-effective, develop an inventory of public impervious surfaces that have potential for increased infiltration including conversion to pervious surfaces. (Implementation: Mid-term)

Action 8.4.2 Minimize site runoff at existing public properties and consider water infiltration retrofits including pervious pavement. (Implementation: Mid-term)

Action 8.4.3 Develop a phased master plan and capital improvements budget to implement runoff infiltration retrofits. (Implementation: Mid-term)

Policy 8.5 **Where indicated by geological conditions, encourage drainage system designs that detain or retain and naturally treat runoff through bioswales, wetlands filtration system creation, or other methods.**

Action 8.5.1 Develop informational materials on bioswales and wetlands filtration systems for applicants. Include on zoning plan check and design review checklists and guidelines. (Implementation: Short-term)

Plant Materials Selection

Policy 8.6 **Encourage drought-resistant and native landscape plant use that considers plant groupings, fire safety, slope stability, salt tolerance, location for view preservation, and the long term health of the ecosystem.**

Action 8.6.1 Follow recommendations and consult plant lists contained in the Landscape and Scenic Highways Resource Document as well as those provided in Water Use Classifications of Landscape Species (WUCOLS III), University of California Cooperative Extension, California Department of Water Resources. (Implementation: Short-term)

Action 8.6.2 Continue to promote public awareness of "California friendly" drought-tolerant landscape design through information guides and landscape plan check requirements. Develop or improve existing guidelines for drought resistant and native landscape material use, consistent with fire safety. (Implementation: Short-term)

Policy 8.7 **Encourage minimizing turf in landscapes except where it has a specific function, such as athletic fields, public activity areas, and historical locations.**

Action 8.7.1 Develop zoning plan check and design review process benchmarks for turf grass use. Inform applicants of water district incentives for replacement of turf with "California friendly" plants. (Implementation: Short-term)

Policy 8.8 **Encourage landscape plant material selection that minimizes water, fertilizer, and pesticide use, that are low-maintenance, fire safe, and that create plant communities with compatible habitat opportunities.**

Action 8.8.1 Develop informational materials and templates for applicants. (Implementation: Short-term)

Action 8.8.2 Include these criteria in landscape design review checklists. (Implementation: Short-term)

Policy 8.9 **Encourage appropriate plant material selection and placement to minimize the potential deleterious effects of pests and diseases, as well as impacts from salt spray and wind in coastal influence zones.**

Action 8.9.1 Develop strategies to implement this policy based on best science and practices and include in updates to the LSHRD. (Implementation: Short-term)

Invasive Plants

Policy 8.10 **Prohibit planting of invasive plant species as determined by the City.**

Action 8.10.1 Consult with the California Invasive Plant Council (CALIPC) for an up to date list of invasive plants and continue to promote public awareness of invasive plant species, and requirements for removal. (Implementation: On-going)

Policy 8.11 **Continue invasive plant removal citywide, and prohibit their installation in new or renovated landscapes.**

Action 8.11.1 Develop a phased invasive plant removal and restoration program that replaces invasive plants with native and/or non-invasive drought tolerant plants, with incentives for compliance and penalties for non-compliance. (Implementation: Short-term)

Action 8.11.2 Proactively enforce the provisions of the invasive plant regulations to go beyond the complaint-driven process. (Implementation: Short-term)

Action 8.11.3 Provide local nurseries with regularly updated lists of prohibited plant species. (Implementation: Short-term)

Pedestrian Walkways and Trails

Policy 8.12 **Require attractively landscaped and designed pedestrian walkways and bicycle trails, consistent with sustainability principles, to**

encourage use and provide shading to reduce sun exposure.

Action 8.12.1 Review City pedestrian walkway and trails systems to identify improvement opportunities. Coordinate as applicable with scenic highways Corridor Protection Plans. (Implementation: Short-term: 1-3 yrs.)

Lighting, Glare and Heat

Policy 8.13 **Continue to promote minimizing unnecessary light and glare. Promote landscape design to shade and shield absorptive dark colors, expanses of glass, and extensive hardscape.**

Action 8.13.1 Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines. (Implementation: Short-term)

Agricultural Landscape

Policy 8.14 **Encourage landscaping with plant species that produce edible products for local consumption.**

Action 8.14.1 Provide informational materials with practical examples for applicants and the community in general. (Implementation: Mid-term)

Action 8.14.2 Create an incentive for a property purchase program to create community gardens, including city financial or in-kind contributions. (Implementation: Short-term)

Action 8.14.3 Recommend that the Department of Community Services and the Recreation Committee include community gardens in their recreation offerings; work with Community Development to develop a

community garden program and plan. (Implementation: Short-term)

Action 8.14.4. Investigate opportunities to coordinate local production with Farmer's Market and food pantry services. (Implementation: Mid-term)

Action 8.14.5 Promote appropriate sites for planting of fruiting trees and shrubs in City parks and maintained areas with local community involvement. (Implementation: Mid-term)

Policy 8.15 **Encourage small-plot agriculture, including community gardens and commercial agriculture such as hydroponics and other resource-conserving agronomic technologies.**

Action 8.15.1 Investigate current zoning to determine if impediments exist to implement this policy and recommend changes. (Implementation: Short-term)

Action 8.15.2 Identify potential locations for community gardens on underutilized public property. (Implementation: Short-term)

Action 8.15.3 Implement ordinance to enable property tax reduction for private properties committed to community urban agriculture/community gardens. (Implementation: Short-term)

Maintenance

Policy 8.16 **Promote landscape life-cycle cost analysis considering plant selection, longevity, slope stability, fire safety, view preservation, fertilizer and pesticide minimization, and maintenance cost reductions, such as water use, tree trimming, lawn care, etc.**

Action 8.16.1 Develop public informational materials for this policy. (Implementation: Mid-term)

Policy 8.17 **Promote local yard waste recycling, composting, and mulching.**

Action 8.17.1 Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines. (Implementation: Short-term.)

Action 8.17.2 Encourage greater participation in local green waste recycling and investigate more frequent compost re-distribution. (Implementation: Short-term)

Policy 8.18 **Encourage sound pruning and discourage severe pruning and topping of trees that results in unsafe branching, unsightly tree forms, excessive green waste, and excessively thick regrowth.**

Action 8.18.1 Provide an informational brochure and materials on sound pruning practices. Consider an ordinance that sets standards preventing severe pruning of trees and shrubs. Refer to ANSI A300 standards and the pruning and maintenance guidelines in the LSHRD. (Implementation: Short-term)

Policy 8.19 **Apply sound landscape maintenance practices for City parks.**

Action 8.19.1 Use pruning practices per the International Society of Arboriculture (ISA) for tree care and conduct them to improve aesthetics, for the continued health of the tree and to reduce potential hazards. Specific pruning goals include:

- Improve aesthetic characteristics
- Improve structural strength and reduce failure potential (including dead branch removal)
- Repair structural damage from wind loading

- Enhance tree health and influence flowering and fruiting of some species
- Provide clearance for pedestrians, vehicles, and structures and ensure safety and security for residents and visitors, and
- Prevent or mitigate a pest problem (Implementation: On-going)

Action 8.19.2 Protect City trees whenever possible and feasible, and strive to replace trees after site evaluation is completed to verify that the site is suited for replanting when a tree is removed per the City's tree removal policy. (Implementation: On-going)

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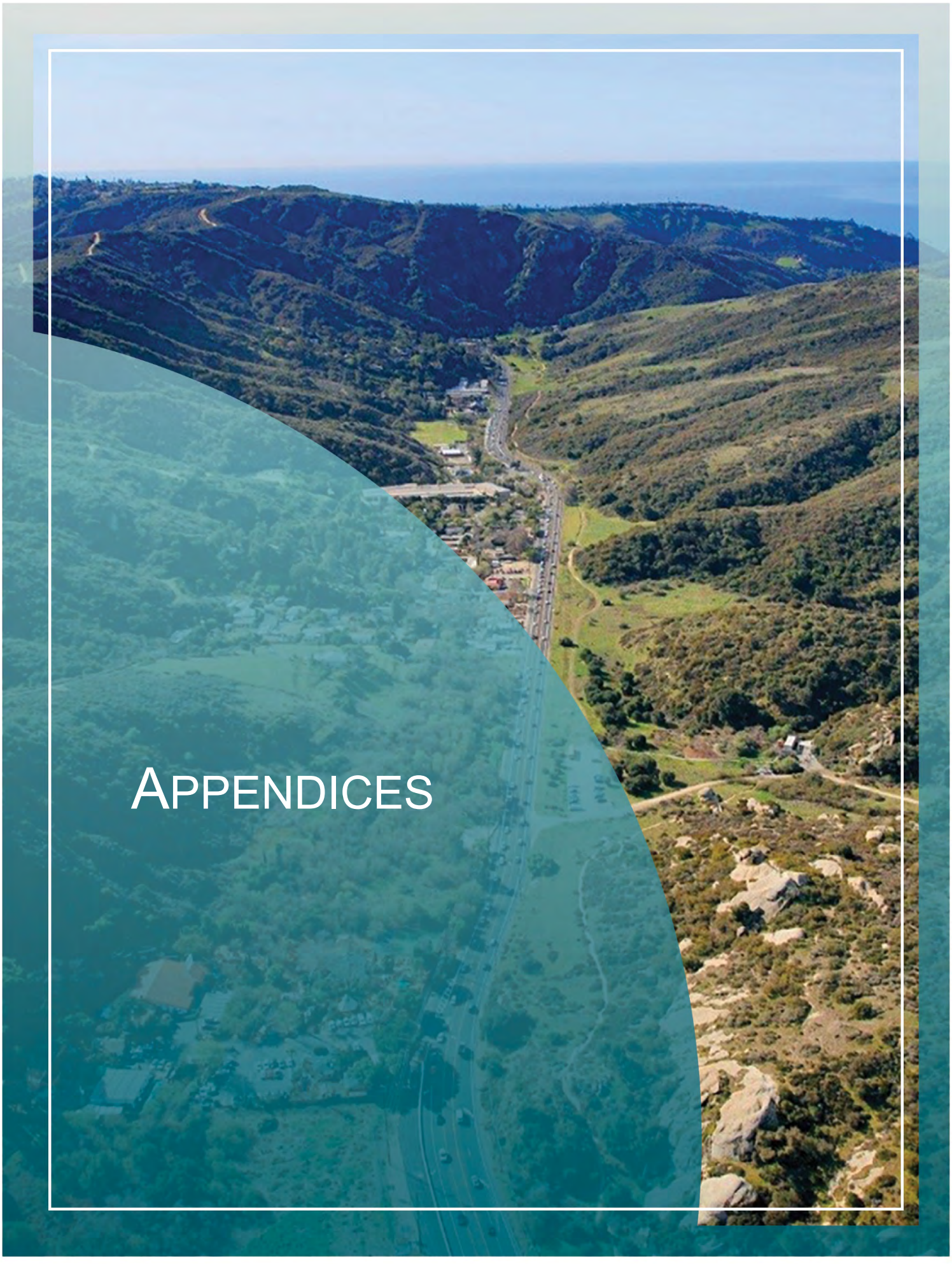

APPENDICES

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GLOSSARY

1. Alternative Means and Methods (AM&Ms) (Fire Safety)

Alternative Means and Methods are strategies and designs that vary from standard adopted methods to achieve code standards equivalency.

2. Best Management Practices (BMPs) related to Water Quality and Storm Water

BMPs related to water quality and storm water are control measures taken to mitigate changes to both quantity and quality of urban runoff caused through changes to land use, grading and surfacing. BMPs focus on water quality problems caused by impervious surfaces from land development. BMPs are designed to reduce storm water volume, peak flows, and/or non-point surface pollution through evapotranspiration, infiltration, detention, and filtration or biological of chemical actions.

BMPs can be classified as "structural" (i.e., devices installed or constructed on a site) or "non-structural" (procedures, such as modified landscaping practices). There are a variety of BMPs available; selection typically depends on-site characteristics and pollutant removal objectives. The U.S. Environmental Protection agency (EPA) has published a list of storm water BMPs for use by local governments, builders, and property owners. The City has a water quality management planning process that incorporates BMPs.

3. Bikeways

Bicycle lanes, bicycle paths, and bicycle routes.

4. Biodiversity

Biodiversity refers to the varieties of species and genes needed to create a healthy ecosystem.

5. Bulb-out

A bulb-out, or curb extension, is an angled or curved narrowing of the roadway and a widening of the sidewalk or planting area. It is a traffic calming and landscape design measure, primarily used to extend the sidewalk, reducing the crossing distance and allow pedestrians to cross and approaching vehicle drivers to see each other when vehicles parked in a parking lane would otherwise block visibility. Bulb-outs are also used to improve streetscape aesthetics when allowing additional space for planting, often at intersections, and to improve conditions for existing trees by providing more space for their trunks and roots.

6. Complete Streets

Street and roadway network that accommodates all users including pedestrians, bicyclists, public transit users, motorists, children, the elderly, and the disabled.

7. Corridor Protection Program-Scenic Highways

Corridor Protection Programs (CPP) in California include comprehensive measures for the protection of Scenic Highways. Corridors consist of land visible from the highway right-of-way, and is comprised primarily of scenic and natural features. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries.

CPPs can include locally adopted ordinances, zoning, and/or planning policies to preserve the scenic quality of the corridor or include regulations that already exist in various portions of local codes. CPPs provide sufficient detail to avoid broad discretionary interpretation and demonstrate a concise strategy to effectively maintain the scenic character of the corridor.

There are six elements of a CPP:

1. Regulation of land use and density of development,
2. Detailed land and site planning,
3. Control of outdoor advertising,
4. Careful attention to and control of earthmoving and landscaping,
5. The design and appearance of structures and equipment, and
6. Undergrounding of overhead utility lines.

8. Defensible Space—Urbanized Area

The arrangement of access on the property for ease of firefighting and the maintenance of properties to minimize buildup of flammable materials that could ignite and cause fire to spread to the home.

9. Defensible Space—Wildland/Urban Interface

The perimeter area around the structure that is strategic in defense against wildfires encroaching and fires escaping the structures. Defensible space refers to the area between a structure and a potential on coming wildfire. Defensible space is needed when structures are adjoining grass covered, brush covered, forest covered land, or any land that is covered with flammable material including a fuel modification zone.

10. Ecology

Ecology is the scientific study of interactions among organisms and their environment. These include the diversity, distribution, amount (biomass), number (population) of organisms, as well as competition among them within and among ecosystems. Ecosystems are composed of dynamically interacting parts including organisms, the communities they make up, and the non-living components of their environment.

11. Ecosystem Services

Ecosystems provide a multitude of resources and processes that are beneficial to mankind. Collectively, these benefits are known as ecosystem services and include products like clean drinking water and processes such as the decomposition of wastes.

Ecosystem services contain four broad categories: provisioning, such as the production of food and water; regulating, such as the control of climate and disease; supporting, such as nutrient cycles and crop pollination; and cultural, such as spiritual and recreational benefits.

12. Endangered Species

A species of animal or plant whose prospects for survival and reproduction are in immediate jeopardy from one or more causes, as defined by the Federal and California Endangered Species Acts. The City designates land that may contain endangered species as Very-High-Value Habitat.

13. Fire Prevention

Measures that keep fires from occurring such as education, monitoring of open space areas for possible arson, fire protection systems, smoking prohibitions, smoke alarms, sprinklers, stricter building requirements, vegetation management, and undergrounding of utilities.

14. Fuel Break

A wide strip or block of land on which the native or pre-existing vegetation has been permanently modified so that fires burning into it can be more readily extinguished.

15. Fuel Modification

Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control. Fuel Modification is one component of Vegetation Management.

16. Fuel Modification Zone

Landscaping areas adjacent to structures in which combustible vegetation is removed or partially removed from strips of land creating zones that transition between the thick existing vegetation and more sparse vegetation close to structures. Fire-resistant plants and irrigation can be included as part of the zone. The purpose of these zones is to provide an integral level of protection for structures from wildfires by slowing the speed and reducing the intensity of the fire. See Laguna Beach Fire Department Vegetation Management Guidelines and Maintenance for details.

17. Greenhouse Gases

Greenhouse gases (GHG) are atmospheric gases are those that emit radiation within the thermal infrared range and contribute to the “greenhouse effect” connected with global warming. The primary greenhouse gases in the Earth’s atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

18. Habitat

The physical location or type of environment in which an organism or biological population lives or occurs.

19. Habitat, High-Value

As defined in the City's Open Space/Conservation Element, an extensive area dominated by indigenous plant communities that possess good species diversity. They are often but not always linked to extensive open-space areas within or outside of the City by traversable open-space corridors. Their faunal carrying capacity is good to excellent.

20. Habitat, Very High Value

As defined in the City's Open Space/Conservation Element, habitats of endangered, rare, or locally unique native plant species and areas of southern oak woodland and natural (not irrigation-augmented) springs and seeps. Among the very-high- value habitats inventoried are areas of significant rock outcrop exposures because of the assemblages of sensitive plan species that often occupy such settings. The general biotic categories include coastal sage scrub, chaparral, grasslands, southern oak (or coastal live oak) woodland, rock outcrops, coastal bluff scrub, coastal strand and urban forest.

21. Hazardous Fuel Reduction

Removal or modification of wildland fuels to reduce the risk of ignitions and intense wildfire behavior. It is intended to lessen post-fire damage, limit the proliferation of invasive species and diseases, and restore and maintain healthy, diverse ecosystems. Hazardous Fuel Reduction activities include fuel inventories and assessments, preparing the sites for treatment, removing or reducing fuels, and monitoring and evaluating completed treatment. Hazardous Fuel Reduction projects are accomplished using prescribed fire, mechanical thinning, chemical applications, grazing, or a combination of these methods.

22. Historic American Landscapes Survey (HALS)

The Historic American Landscapes Survey (HALS) mission is to record historic landscapes in the United States and its territories. The National Park Service oversees the daily operation of HALS and formulates policies, sets standards, and drafts procedural guidelines in consultation with the American Society of Landscape Architects (ASLA).

The survey is intended to serve as tangible evidence of our nation's heritage and development. In 2010, three organizations, the National Park Service, the American Society of Landscape Architects, and the Library of Congress signed a new Tripartite Agreement that made HALS a permanent federal program.

23. Local Responsibility Area (LRA)

Areas of incorporated cities, cultivated agriculture lands, and portions of the desert where fire protection is typically provided by city fire departments, fire protection districts, counties and by CAL FIRE under contract to local government.

24. Impervious/Impermeable Surface

A surface through which water cannot penetrate, such as a roof, deck, road, sidewalk or paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

25. Invasive Plants

Plants that are invasive into natural ecosystems. Typical examples are Artichoke thistle (Cynara cardunculus, Arundo (giant reed) Ricinus communis (castor bean), Cortaderia jubata (pampas grass) and Pennisetum setaceum (fountain grass). These plants often present a fire hazard as well as damage to natural habitat.

26. Neighborhood Landscape

A localized combination of vegetation and/or hardscaping, on primarily private property, that blends with the surrounding natural and built environment to comprise the unique identity and landscape character of a neighborhood.

27. Runoff Coefficient

The percentage of precipitation that runs off rather than being absorbed into the soil.

28. Scenic Corridor

Is the land adjacent to a scenic highway outside the right-of-way which, when seen from the road, provides outstanding views of natural landscapes and attractive man-made development.

29. Scenic Highway

Is a designated State, County, or City travel route providing outstanding views of natural landscapes and attractive man-made development. City Scenic Highways include Coast Highway, Laguna Canyon Road, and El Toro Road.

30. Scenic Highway-State

A highway may be designated scenic depending upon how much of the natural landscape or other scenic features can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. These highways are identified in Section 263 of the Streets and Highways Code.

31. Single Specimen Tree

Any live tree that stands alone in the landscape so as to be clear of buildings, structures, combustible vegetation, or other trees, and that does not form a means of rapidly transmitting fire from the vegetation to an occupied dwelling or structure or from an occupied dwelling or structure to vegetation. (§ 51177)

32. State Responsibility Area (SRA)

Areas where CAL FIRE has a legal responsibility to provide fire protection.

33. Sustainable Development

Development that maintains or enhances equity, economic opportunity, and community well-being while protecting and restoring the natural environment upon which people and economies depend. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their needs.

34. Target Plant Species

See “Undesirable Plant Species” below.

35. Trees, Candidate Heritage

Trees meeting the criteria outlined in the Heritage Tree Ordinance, Section 12.08 of the Municipal Code, but not yet designated by the City Council for inclusion in the Heritage Tree list. Other trees not on the Candidate Heritage Tree list may also be eligible to be listed as Heritage Trees.

36. Trees, Heritage

Trees listed by the City as Heritage Trees meeting the criteria outlined in the Heritage Tree Ordinance, Section 12.08 of the Municipal Code.

37. Trees, Significant

Trees of large size, historical significance, or unique appearance, some of which are listed on the City's Heritage Tree list or Candidate Heritage Tree list.

38. Traffic Calming

A range of methods to slow vehicles as they move through neighborhoods. The purpose is to increase safety for pedestrians and bicyclists and to create an environment that is compatible with walking and bicycling. Traffic calming also seeks to create equilibrium among all street uses, so that no one mode dominates at the expense of another.

39. Undesirable Plant Species (in reference to fire safety)

Plants that have inherent characteristics that make them highly flammable. Physical properties include large amounts of dead material retained within the plant, rough or peeling bark, and the production of copious amounts of litter. Chemical properties include the presence of volatile substances such as oils, resins, wax, and pitch. Plants with these characteristics should not be planted nor be retained within any fuel modification zone. In the city's Landscape/Fuel Modification Guidelines and Maintenance Program they are referred to as "target species" since their removal is a part of hazard reduction in fuel modification zones.

40. Vegetation Management

Fuel Modification or Defensible Space plant installation or maintenance activities for the purposes of reducing the intensity of vegetation fires and to reduce the chances of the ignition of structures.

41. Very High Fire Hazard Severity Zone

A geographic area, designated pursuant to Government Code Section §51178 and/or local ordinance, that is subject to increased possibility of conflagration fires due to the type and condition of vegetation, topography, weather, and structure density. Reference California Fire Code.

42. View Equity

Per LBMC Section 12.16.030, "View equity" means achievement of a fair, reasonable, and balanced accommodation of views and competing obstructions (such as structures, trees and/or vegetation), privacy and the use and enjoyment of property. When reasonably possible and feasible, development, including its landscaping, shall be designed to preserve views from and sunlight to neighboring properties without denying the subject property the reasonable opportunity to develop as described and illustrated in the City's design guidelines.

43. Wildland Urban Interface (WUI)

That line, area, or zone where structures and other human development meet or intermingle with wildland areas.

FIRE SAFETY RESEARCH, FOOTNOTES

Following are quotes from sources consulted in developing the chapters on fire safety and the landscape.

[1] **Penman, Collins, Syphard, Keeley, Bradstock**, "Influence of Fuels, Weather and the Built Environment on the Exposure of Property to Wildfire", PLOS One, October 2014.

Penman, Trent D., Centre for Environmental Risk Management of Bushfires, Institute of Conservation Biology and Environmental Management, University of Wollongong, NSW, Australia.

> "Fire size and distance traveled was influenced most strongly by weather, with exposure to fires most sensitive to changes in the built environment and fire parameters. Natural environment variables and fuel load all had minor influences on fire size, distance traveled, and exposure of assets. These results suggest that management of fuels provided minimal reductions in risk to assets and adequate planning of the changes in the built environment to cope with the expansion of human populations is going to be vital for managing risk from fire under future climates." (Abstract)

[2] **Keeley, Jon E.**, "Fire on California Landscapes", Fremontia, April-July 2010, pp. 4-5.

Keeley, Jon E., Research Scientist, U. S. Geological Survey, Western Ecological Research Center and Adjunct Professor, Department of Ecology and Evolutionary Biology, UCLA, jon_keeley@usgs.gov

> "As a member of the California Native Plant Society (type converting native shrublands to non-native grass and forb lands) concerns me because of the loss of both native flora and fauna. As an ecologist this concerns me because of the change in functional types from deep-rooted shrubs that can hold soils on steep slopes, to shallow-rooted herbs. As a fire scientist this concerns me because of the change in fire season from about 6 months in shrublands to 12 months in annual grasslands, and lastly as a scientist this is of concern due to the loss in the capacity for carbon storage and potential impacts on the climate."

[3] **Rubin, Greg**, Wildfire Safety: "Lessons Learned from Southern California", Fremontia, April-July 2010.

Rubin, Greg, author of "The California Native Landscape: The Homeowners' Design Guide to Restoring its Beauty and Balance."

> "What is needed is breaking up the continuity of fuels, both vertically and spatially, and reducing the proportion of dead to live wood. In other words, thinning the vegetation. Complete clearance can actually enhance fire spread by both increasing alien weeds that comprise flashy fuels, and by eliminating important "ember catchers" such as oak trees that can dampen the fire threat around homes." Trees and shrubbery also serve as barriers that slow down the dry winds laden with cinders. Complete clearing creates a "bowling alley" for embers".

[4] Letter from former Laguna Beach **Fire Chief Rich Dewberry**, April 30, 2015.

> "It is my opinion that reduction of fuels in tons per acre in the interface, reduction of ladder fuels, and separation of trees, including eucalyptus, will provide adequate defensible space in most scenarios.
>
> Even though eucalyptus trees do have high oil content, reduction of fuel in the crown of the trees, separation of the trees so as not to present an exposure problem, from one tree to another and or structures, should allow a reasonable approach to fire protection planning without eliminating the eucalyptus trees all together. This also applies to all ornamental trees, in my opinion.
>
> Some fire experts advocate type conversions from native plants to grass, even though this action will reduce theoretical flame front temperatures (1 hour to 10-hour fuels), the rate of spread is much greater. In fact, there have been more fire fighter fatalities and serious injuries where the fuel classification was identified as light to medium."

[5] Letter from **Regumbah Connolly, Helen Shirley and Sharon Risley**, Woodland Drive neighborhood residents, December 20, 2014.

> "I have lived in the Sarah Thurston Park (Woodland Drive) neighborhood for many years. On October 27, 1993, when the Laguna Firestorm engulfed our town, my neighbors and I were watching as the fire spread through the Canyon Acres and the hills surrounding our neighborhood. We could see the flames moving closer and the sky was full of blowing, burning embers circling high in the air.
>
> As we looked up we could see that the burning embers were falling into the green leaves of the many historic Eucalyptus trees that are within our neighborhood. The embers were harmlessly extinguished in the tree canopies, preventing them from falling on our homes. As an eye-witness, I am convinced that these trees saved our neighborhood. Not one Eucalyptus tree caught fire and no homes were lost in Sara Thurston Park."

[6a] **Cohen, Jack D**. "Reducing the Wildland Fire Threat to Homes: Where and How Much?" USDA Forest Service Gen. Tech. Rep. PSW-GTR-173. 1999.

Jack D. Cohen is a Research Physical Scientist, Fire Sciences Laboratory, Rocky Mountain Research Station, USDA Forest Service, PD. Box 8089, Missoula, MT 59807. Jcohen/rmrs_missoula@fs.fed.us

> "During severe Wildland-Urban Interface fires firebrand ignitions are particularly evident for homes with flammable roofs. Often these houses ignite and burn without the surrounding vegetation also burning. This suggests that homes can be more flammable than the surrounding vegetation." [6a p.192]
>
> "Wildland-Urban Interface fire case studies show that effective fuel modification for reducing potential Wildland-Urban Interface losses need only occur within a few tens of meters from a home, not hundreds of meters or more from a home. This research indicates that home losses can be effectively reduced by focusing mitigation efforts on the structure and its immediate surroundings….Given nonflammable roofs, Stanford Research Institute found a 95% survival (of a structure) with a clearance of 10 to 18 meters…Research conclusions redefine the Wildland Urban Interface home fire loss problem as a home ignitability issue largely independent of wildland fuel management issues….Home ignitability is the principle cause of home losses during wildland fires….Effective mitigating actions focus on the home and its immediate surroundings rather than on extensive wildland fuel management." [6 p.192]

[6b] **Cohen, Jack D**. Email to Margaret Hall. "1991 Oakland Hills Fire." March 25, 2016.

Jack D. Cohen comments on the Oakland fire and "fire-science based information on the dangers represented by a specific tree species (in this case Eucalyptus globulus) as compared to other vegetation types."

> "It became abundantly clear the Oakland residential fire disaster was similar to more recent disasters where eucalyptus is significantly present. I have attached 5 photos showing that the 'gasoline' (Eucalyptus) tree remains unconsumed adjacent to/surrounding destroyed houses as with all the other disasters I've examined. The first 2 photos are from the 2009 Melbourne, Victoria fires that destroyed many structures with 173 civilian fatalities in Kinglake and Marysville in the hills north of Melbourne. The unconsumed vegetation are eucalyptus."
>
> "This is consistent with all the disaster examinations I've done (internal reports and published) regardless of the tree species. The common characteristics initiating the disastrous losses in high density residential development are extreme wildfire conditions in surrounding wildlands producing firebrand showers that ignite homes directly and surface fuels within the community to produce significant firebrands from burning homes/structures and adjacent trees that were ignited by the burning homes. This indicates that the eucalyptus trees did not burn with high intensities (or any intensity) leading to home destruction. This strongly suggests that eliminating eucalyptus and replacing it with some other vegetation would not prevent future Wildland Urban Interface fire disasters because the problem was inappropriately defined as a eucalyptus vegetation problem and not a home ignition-home ignition zone problem." [6b]

[7] **Maloney, David**. "The Next Major Fire in the East Bay Hills." March 2016.

David Maloney is the former Chief of Fire Prevention of the U. S. Army on the Oakland Army Base and a retired firefighter from the Oakland Fire Department. He holds lifetime certifications from the California State Fire Marshal's Office as a Fire Investigator and from the U.S. Department of Defense as a Fire Inspector. He was a member of the 1991-1992 Emergency Preparedness and Community Restoration Task Force (Oakland-Berkeley Mayors' Firestorm Task Force) which investigated the 1991 Oakland Hills fire and made recommendations to prevent a recurrence of a major fire in the East Bay Hills. He is currently a wildland fire prevention consultant. David.Maloney@rocketmail.com (510) 334-8003.

> "Relatively small grass fires can reach a speed of 7.5 miles per hour…The Oakland Hills fire of 1991 started in grass…The burning grasses ignited houses and then the prolonged house fires ignited trees."
>
> "The emphasis on prohibiting certain species of trees does not recognize that the fire resistance of a tree depends more on structure than on the species. "Fire science has shown that the species of a tree is irrelevant in determining its flammability. Trees that have their lowest branches high above the ground, thick bark and high moisture content are the most fire resistant…Particular tree species do not pose a significant fire danger when properly maintained." [7, pp. 14, 18, 19]
>
> "Trees, because of their thick bark, ability to collect moisture from the air, especially in foggy areas, and branches above the ground are the most fire-resistant natural vegetation." [7, p 17]
>
> "Any living tree, no matter what its species, is much less flammable than grass. Every living tree, due to its moisture content and canopy coverage of ground fuels, contributes to wildfire mitigation." Removal of trees is often followed by conversion to grassland and that poses a greater fire danger. The claim that "Eucalyptus trees are more flammable than other trees and more flammable than

grasses is untrue…" Mr. Maloney goes on to explain, in scientific terms based on proven tests, that the essential/volatiles oils of any given tree are irrelevant to the flammability of the tree. He states that trees have a water content of approximately 30%, which "overwhelms by far any chance the essential / volatile oil has to set the tree on fire."

[8] **Halsey, Richard W., Schasker, Kurt** "Fire, Chaparral and Survival in Southern California." Sunbelt Publications, San Diego, CA 2005.

Richard Halsey, Director, The Chaparral Institute, fire management specialist, noted fire ecology expert and wildland firefighter.

"Fine, grassy fuels are one of the common denominators in firefighter fatalities." [8, p. xix]

"This closed canopy prevents nonnative weedy annuals from obtaining a toehold. Once that canopy is opened up weeds will invade." [8, p. 68]

"There's a lot of mythology about Eucalyptus and trees in general. If they are properly maintained and you take care of them, they actually protect your home. The problem is some people don't maintain their plants and you get a lot of litter. That's an issue. But essentially if they're properly maintained they become heat sinks and ember catchers.

Regarding trees, as a former firefighter I know the presence of pines, Eucalyptus, and palms (especially palms) is a significant factor in home ignitions. The problem with Eucs and pines is not so much the tree itself, but the litter it produces and the lack of maintenance. There is the notion that Eucalyptus trees are ready to explode. They don't do that. They will certainly catch fire in a wind-driven Eucalyptus forest fire in Australia (anything will), but we do not have those kinds of conditions. In fact, I've seen many situations where houses are totally consumed by flames and the Eucs in the surrounding yard merely have a bit of radiant heat damage.

Concerning litter, as with everything, not all Eucalyptus are alike. There are quite a few Eucalyptus species that shed very little and can be beautiful, fire safe additions to a landscape. One in particular is the lemon Eucalyptus. Not only is the tree architecturally beautiful, but also the scent and white bark make it a wonderful focal point in many landscapes.

Some Eucalyptus, if properly maintained and irrigated, can also act as heat sinks and ember catchers. The fact that is frequently not known is that in order to burn anything, all the moisture must be driven out. This is why a Styrofoam cup with water in it can be placed in the center of a campfire and not melt or catch fire. It won't do so until all the water has evaporated." Presentation on October 3, 2013, City hall.

[9] City of Laguna Beach, "Landscape and Fuel Modification Guidelines and Maintenance Program." January 2010.

[10] **Guy Anderson and Lynnette Short** of CAL FIRE, personal communication, May 16, 2016.

CAL FIRE has not defined target species, and the concept has no scientific basis. Eliminating whole species doesn't make sense from an ecological perspective. (Guy Anderson)

CAL FIRE does not employ the concept of a "target list" of prohibited species. She added that Eucalyptus trees (for example) are "no more flammable than any other trees if properly maintained." (Lynette Short)

POLICY/ACTION MATRICES

TOPIC 1: NEIGHBORHOOD CHARACTER			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Protect and improve Laguna Beach's neighborhood landscapes.**
INTENT			The Neighborhood Character policies and actions will protect, improve, and adaptively manage this resource as the community evolves. By including an educational component to neighborhood character management, residents and visitors will have a deeper appreciation of the natural and cultural forces that have shaped these neighborhoods; and hence motivation to protect and improve this valuable heritage.
Policy 1.1			Foster community appreciation of landscape resources and promote awareness of Laguna's neighborhoods as valuable community resources.
	1.1.1	Short-term	Distribute informational materials to residents using the descriptions and suggestions in the Landscape and Scenic Highways Resource Document and other sources, as applicable.
	1.1.2	Short-term	Distribute the Landscape and Scenic Highways Resource Document as a companion to the Residential Design Guidelines for Design Review.
Policy 1.2			Implement programs to insure neighborhood landscape character protection and enhancement.
	1.2.1	On-going	Consult neighborhood descriptions and recommendations contained in the Landscape and Scenic Highways Resource Document during the development project review process.

TOPIC 1: NEIGHBORHOOD CHARACTER			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
Policy 1.3			Reinforce City policies to protect the City's landforms, including ridgelines, hillsides, rock outcroppings, canyons, watercourses, bluffs, shoreline rock formations, beaches and the marine environment, and cultural resources.
	1.3.1	Short-term	Review existing policies and ordinances for effectiveness in neighborhood protection. Suggest possible improvements.
	1.3.2	Mid-term	Continue to provide historical and archaeological site protection guidelines.
	1.3.3	On-going	Continue to provide natural watercourse protection recommendations for preserving, restoring, enhancing, and maintaining natural watercourses, including beach sand replenishment.
Policy 1.4			Ensure that the Laguna Beach landscape will continue to include large mature trees, including eucalyptus, cypress, pines, cedars, palms, and others. Foster preservation of existing large trees.
	1.4.1	Short-term	Update design guidelines to provide for large trees to remain and be planted at select locations pursuant to Land Use Element Policy 2.6.

TOPIC 1: NEIGHBORHOOD CHARACTER			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	1.4.2	Short-term	Because large mature trees are important to community character, discourage the trade-off of approving new building development that blocks views.
Policy 1.5			Encourage the creation of public spaces and require sidewalk improvements and dedications where appropriate in new development and major remodels.
	1.5.1	Short-term	Update the zoning plan checklist for these improvements and dedications.
Policy 1.6			Encourage the creation of pocket parks and community gardens. Community gardens should be privately operated and maintained.
	1.6.1	Short-term	Working with neighborhood groups, identify potential pocket parks and community garden sites, including vacant privately- owned and publicly owned properties.
	1.6.2	Short-term	Encourage City/private partnerships for purchasing neighborhood parks and community gardens. Consider permit fee waivers, site acquisition funding, staff guidance and support, and city-sponsored programs.
	1.6.3	Short-term	Develop pocket park and community garden guidelines and implementation strategies.

TOPIC 2: VIEW MANAGEMENT			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Maintain public and private views through balanced consideration of the functional and aesthetic benefits of properly chosen and located ornamental vegetation. Maintain Laguna Beach's landscape character.**
INTENT			The complexity of view management with respect to landscape is such that the City has become increasingly involved in the process. While the City has taken numerous steps over the years to address this issue, the process is evolving. The City will continue to seek methods to improve landscape planning and maintenance for view management and landscape preservation, with focus on education and private sector incentives.
Policy 2.1			Continue efforts to inform the community about best view management landscape practices.
	2.1.1	On-going	Periodically update informational brochures and provide for public outreach through materials posted at City Hall, mailers, website postings, and social media strategies. Include information on view management and the positive and negative effects of vegetation in that regard. Include sections on plant material selection, location, pruning, and maintenance techniques.
Policy 2.2			Promote improved long-term pruning techniques to enhance neighborhood views, promote tree health, and produce safe and natural tree form.
	2.2.1	Mid-term	Develop and disseminate a pruning guide for the public, utilities, and tree pruners.

TOPIC 2: VIEW MANAGEMENT			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	2.2.2	Mid-term	Consider development guidelines and regulations that promote appropriate pruning and discourage severe pruning practices. See action 8.18.1.
Policy 2.3			Maintain Laguna Beach's traditional landscape character, including its treescape. Include the following criteria in decisions in relation to view and tree management: • Select and locate trees to protect and enhance ocean, canyon, and hillside views. Delineate the intent of landscape plans at plant maturity in relation to the location of view corridors or screening areas. • Discourage plant materials that would require excessive maintenance to preserve key view corridors. • Encourage an equitable balance between reasonable use and enjoyment of landscape vegetation and privacy, and the enjoyment of views by others. • Evaluate the cumulative, long-term effect on the landscape character of the community (public views) when landscape changes to improve views for individuals (private views) are considered. Require appropriate measures to screen new development from open space areas. • Promote planting and preservation of tall-growing trees in select areas where trees will not block significant views from residences so that in the future the city will continue to have a treescape rising above the rooflines of buildings.
	2.3.1	Mid-term	Update design guidelines and view evaluation processes to provide for these criteria.
	2.3.2	Mid-term	Provide for an annual audit to the Planning Commission and City Council of tree-related decisions, including the effect of related City ordinances. Consider adjustments to City ordinances and procedures in relation to view management goals and criteria as results are reviewed.

TOPIC 2: VIEW MANAGEMENT			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	2.3.3	On-going	For all new development on private property that includes landscape plan approval, ensure the landscaping is consistent with the goals and criteria of the View Preservation and Restoration Ordinance. For all City projects, landscaping should be placed to maintain and enhance scenic vistas.

TOPIC 3: SCENIC HIGHWAYS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Provide planning and implementation that will assure that the best qualities of the City's Scenic Highways and their visual corridors are maintained and improved where necessary to create the highest aesthetic standard consistent with scenic highway practices and community values.**
INTENT			The Scenic Highways component is a first step toward the official designation of a road as a scenic highway. The City will implement Corridor Protection Plans (CPP) for Coast Highway, Laguna Canyon Road, and El Toro Road within city boundaries. The CPPs will coordinate improvement such as improved safety, utility undergrounding, pedestrian walkways and bicycle trails, landscaping and preservation of landforms and vegetation.
Policy 3.1			Create scenic highway Corridor Protection Programs (CPP), for Coast Highway, Laguna Canyon Road, and El Toro Road as a planning priority.
	3.1.1	Short-term	Develop Corridor Protection Programs for Coast Highway, Laguna Canyon Road, and El Toro Road considering the criteria and action items contained in Appendix II, LSHRD and the Enhancement Mobility and Complete Streets Transition Plan. Each Program will include maps that identify key landscape elements, vistas, architectural icons, topographic landforms, and other unique qualities and conditions that are influential to each road experience. Each element identified will include a brief explanation of why it is an important visual component to the corridor.
	3.1.2	Short-term	Incorporate a Corridor Protection Program for Laguna Canyon Road and El Toro Road as a part of the Laguna Canyon Specific Plan.
	3.1.3	Mid-Term	Work with the County of Orange and the City of Irvine to develop Corridor Protection plans for Laguna Canyon Road, including scenic highway policies and protections for the areas outside of the city's

TOPIC 3: SCENIC HIGHWAYS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
			boundaries to maintain the Canyon's wilderness character and protect the views of natural areas from the road.
Policy 3.2			Prioritize enhanced safety for all scenic highways users in corridor protection planning, consistent with other LSHE policies.
	3.2.1	Short-term	Work with the County of Orange and Caltrans to assure that regional plans for Coast Highway include enhanced street safety features, such as continuous pedestrian walkways and other measures whose design is consistent and compatible with all relevant LSHE policies and actions.
Policy 3.3			Provide for implementation of local scenic highways goals and plans.
	3.3.1	Short-term	Pursue the creation of a local scenic highways designation.
	3.3.2	Short-term	Develop standards for and require dedications of additional rights of way when development plans are approved.
	3.3.3	Short-term	Continue to discourage additional curb cuts, driveways and parking pads accessed directly from the scenic highway when an alternative access is available.
	3.3.4	Short-term	Require additional right-of-way dedications and construction of recommended improvements within the right of way as a condition of approval of permits for development.

TOPIC 3: SCENIC HIGHWAYS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	3.3.5	Short-term	When evaluating street improvement, capital improvement, and private projects consult recommendations and cross sections for scenic highways contained in the Landscape and Scenic Highways Resource Document. Maintain rural quality of road edges where applicable.
	3.3.6	Short-term	Implement a Master Agreement between the City and Caltrans to facilitate permit approval whereby individual applicants can more expeditiously comply with the provisions of the Landscape and Scenic Highways Element and Resource Document as they pertain to Caltrans rights-of-way and encroachment permits.
	3.3.7	Mid-term	To have more local control over the quality of the design and preservation of the City's scenic corridors, consider negotiating with Caltrans to establish an agreement or potentially transfer ROW ownership from Caltrans to the City of Laguna Beach. The purpose of an agreement or transfer is to improve the quality of landscape and streetscape, and provide more flexibility on roadway design elements along Coast Highway and Laguna Canyon Road. While an agreement would ensure ownership is retained with Caltrans, a transfer of ownership of these two right-of-ways would place a significant added financial burden and liability on the City with no known funding mechanism to cover the cost, so a transfer should only be pursued if there is budget to cover the added cost and the benefits to the community outweighed the costs and risk.
Policy 3.4			Optimize use of the existing rights-of-way, until opportunities to obtain additional rights-of-way occur, and seek to expand the right-of-way on streets like Coast Highway when space is limited and where sidewalks do not exist, while avoiding building retaining walls to install the sidewalk.
	3.4.1	Short-term	Evaluate opportunities to remove or relocate pedestrian movement impediments and safety hazards (e.g., parking meters, traffic signs, utility pedestals, mail boxes, walls, landscaping, etc.). Provide walkable surfaces within the existing right-of-way.

TOPIC 3: SCENIC HIGHWAYS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	3.4.2	Short-term	Study options to provide enhanced walkways within the present rights-of-way. Consider options such as consolidating walkways on one side of the street, restriping lanes and bulb-outs (*See Glossary*).
Policy 3.5			Promote undergrounding of utilities and limit installation of new signs, visible utility items, and other features.
	3.5.1	Short-term	Coordinate with other City initiatives on urban design, public works, and infrastructure planning.
Policy 3.6			Consider working with the County of Orange and the City of Irvine to develop scenic highway policies and protections for Laguna Canyon Road outside of the City's boundaries, to maintain the Canyon's wilderness character and protect the views of natural areas from the road.
	3.6.1	Short-term	Meet with Caltrans, the County of Orange, and the City of Irvine to assess this opportunity. Pursue planning and designation efforts.

TOPIC 4: STREETSCAPES AND PARKS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Assure that City streets, rights-of-way, and parks-defining elements of neighborhood character-inclusive of street trees and shrubs, hardscape, lighting, and other utilities and fixtures are maintained and, where necessary, improved to the highest standards.**
INTENT			The City recognizes that the character of its streetscapes is vital to community identity and quality of life. In particular, street tree planting and management in areas where a formal program exists, such as downtown and Coast Highway, is a priority. In addition, other areas of the community may also benefit from such programs. In addition to street tree planting and management; pathways, lighting and utility improvements are needed in some areas throughout the City, especially in relation to scenic highways planning.
Policy 4.1			Develop a comprehensive street tree, streetscape, and urban design program for each street in the Downtown.
	4.1.1	Short-term	Hire a qualified landscape architect design consultant to prepare a Downtown Urban Design Implementation Plan that includes: 1. Consistency with the heritage tree program. 2. Review of the general condition including structure, roots, canopy, and health of each tree. 3. Evaluate long-term issues with the existing conditions, like size of planter area, proximity to buildings, the street, and the future growth of the tree. 4. In recommending tree species and other plantings; consider the width, scale, and importance of the street, sidewalk, and pedestrian use, outdoor pedestrian areas with shade and seating, building mass, façade and architecture, and tree well sizes/ planting areas.

TOPIC 4: STREETSCAPES AND PARKS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
			5. Recommend improved tree well design and how to expand the tree planting areas (i.e. narrowing streets, converting parking spaces). 6. Recommend whether to maintain each tree, change it out to a new tree species, or other remedy to insure long-term viability and quality of the tree and streetscape. 7. Recommend urban design for each street including shade, seating, street lighting, sidewalk improvements, expanding planting areas, and new public gathering areas. 8. Recommend maintenance, irrigation, and long-term upkeep including monitoring and looking for ways to improve landscaping. 9. Consider the effect on traffic flow and parking to ensure there is not a negative impact on the downtown visitor experience. 10. Follow recommendations and consult tree lists contained in the Landscape and Scenic Highways Resource Document.
Policy 4.2			Continue to address mitigation of driver and pedestrian line-of-sight obstructions posed by right-of-way landscape encroachments.
	4.2.1	On-going	Evaluate present program for any improvements needed.
	4.2.2	Mid-Term	Consider the formation of a business improvement district for the Downtown, with a portion of the revenue from the parking meters earmarked for Downtown improvements and maintenance.
Policy 4.3			Consider street tree program options for other neighborhoods.

TOPIC 4: STREETSCAPES AND PARKS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	4.3.1	Short-term	Consult the Landscape and Scenic Highways Resource Document, and consult with neighborhood organizations to identify additional neighborhoods that would benefit from a street tree program.
	4.3.2	Short-term	Outline criteria, procedures, and options for funding for adding existing or newly planted trees to city tree maintenance programs.
Policy 4.4			Recognize unimproved portions of street rights-of-way and unused “paper streets” as neighborhood enhancement opportunities.
	4.4.1	Short-term	Develop inventories, criteria, and programs to realize the opportunity for paper street use for public parks, trails, and landscape enhancement. Set standards for evaluation of revocable encroachment permit applications. Consider the surrounding streetscape context and improvement objectives.
Policy 4.5			Support improved pedestrian and bicycle paths and associated amenity landscaping.
	4.5.1	Short-term	Design and implement these improvements as part of project approvals, streetscape plans, and Scenic Highways Corridor Protection Programs. Fill in “missing links” and obtain rights-of-way dedications needed for pathway continuity.
Policy 4.6			Consider parking lot landscape standard improvements.
	4.6.1	Mid-term	Revisit parking lot development landscape standards of the Municipal Code to LSHE policies.

TOPIC 4: STREETSCAPES AND PARKS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	4.6.2	On-going	Where feasible, require parking lot design that provides for pedestrian access to several destinations.
Policy 4.7			Encourage aesthetic and environmental design improvements (e.g., drainage and pervious surfaces) to existing city parking lots and parking lot landscape design criteria.
	4.7.1	On-going	Improve parking lots with added landscaping and other environmental design improvements where appropriate.
Policy 4.8			Continue to support utility undergrounding and aesthetic improvements to remaining above-ground utilities throughout the city.
	4.8.1	Short-term	Reevaluate City processes and other opportunities regarding utility undergrounding. Identify opportunities and strategies for a coordinated, financially and fiscally feasible/acceptable citywide utility undergrounding program.
Policy 4.9			Create a master plan of sidewalks, trails, and bikeways throughout the city. Identify trail connection opportunities to regional trails.
	4.9.1	On-going	Require dedication and construction of recommended trail and sidewalk improvements as conditions of discretionary permit approval.
	4.9.2	Mid-term	Develop financing options for implementing the master plan of sidewalks, trails, and bikeways.

TOPIC 4: STREETSCAPES AND PARKS			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	4.9.3	Mid-term	Develop beach access landscape improvement criteria.
Policy 4.10			Coordinate City maintenance in the public right-of-way with utility company and Caltrans maintenance activities.
	4.10.1	Mid-term	Work with utility companies and Caltrans to encourage preferred pruning and maintenance techniques. Increase awareness and encourage the use of preferred techniques. Advise agencies of the Municipal Code requirement for a City permit for tree removal in City right-of-way areas. Urge coordination with the City on decisions about trees in all right-of-way areas, except in case of emergency.
Policy 4.11			Implement a street tree, streetscape, and urban design program for City parkways.
	4.11.1	Mid-term	Following the completion of the Downtown Urban Design Implementation Plan, form a subcommittee to update the recommended plant list. Those selected to serve on the subcommittee should have expertise on local flora, horticulture, pest infestation, and plant disease. In developing the plant list, the subcommittee should consider the effects climate change is having on pest infestation, plant disease, invasive plants, dwindling water supply, increased fire risk, and changes in coastal weather.

TOPIC 5: HERITAGE TREES AND LANDSCAPES			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Continue to enhance appreciation and protection of heritage trees and landscapes.**
INTENT			Laguna's heritage and candidate heritage trees are crucial to the quality and character of the local landscape. Historical landscapes, especially those painted by early plein air artists, and other landscapes associated with Laguna Beach history are also part of the City's heritage. The City will give priority to protection of these resources.
Policy 5.1			Foster community appreciation for and involvement In the heritage tree program.
	5.1.1	Short-term	Implement an educational program to inform residents about heritage trees.
	5.1.2	Short-term	Encourage property owners to designate and protect heritage trees. Reduce barriers to designation, including fees and delays. Consider incentives, grants for maintenance, awards, and recognition for owners of heritage trees.
	5.1.3	Short-term	Consider assigning the heritage tree implementation program to the Heritage Committee. Consider qualifications of selected committee members in relation to knowledge of trees, historic landscapes, and/or provide training to members.
Policy 5.2			Because listing of Heritage Trees is voluntary, continue to publicize and support the utilization of the heritage tree incentive program to encourage property owners to apply new tress for listing.
	5.2.1	Short-term	Evaluate the existing incentive program and make recommendations to improve it if needed.

TOPIC 5: HERITAGE TREES AND LANDSCAPES			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
Policy 5.3			Promote maintenance practices for heritage trees that will result in optimal shape and character.
	5.3.1	Mid-term	Consider funding to assist property owners with the proper maintenance of heritage trees.
Policy 5.4			Identify candidate heritage trees on City property and rights-of-way, and promote inspection and proper maintenance of such trees.
	5.4.1	Short-term	Consider their designation as heritage trees.
Policy 5.5			Improve communication about and protection for all heritage trees.
	5.5.1	Short-term	Notify owners of heritage trees about the requirements and benefits of the Heritage Tree Ordinance.
	5.5.2	Short-term	Coordinate among Community Development, Code Enforcement, and the Police Department regarding enforcement of the Heritage Tree Ordinance prohibitions on removing heritage trees without permits.
Policy 5.6			Preserve heritage trees and when feasible preserve candidate heritage trees, and other significant trees.
	5.6.1	Short-term	Through the City review processes, encourage preservation of significant trees on site in order to achieve consistency with the City Design Guidelines landscape criteria.

TOPIC 5: HERITAGE TREES AND LANDSCAPES			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	5.6.2	Short-term	Protect heritage trees from removal before and during the project review processes and when feasible, preserve candidate heritage and significant trees (zoning, Design Review board, Planning Commission, City Council). Include provisions to this effect in Section 12.08 of the Municipal Code.
	5.6.3	Short-term	Require permits to remove heritage trees.
	5.6.4	Short-term	Provide clear procedures for City staff and police in stopping unauthorized removal of significant trees until the appropriate reviews have taken place. Define how citizens can effectively report removals in process, especially after hours and on weekends.
	5.6.5	Short-term	Define “Candidate Heritage Tree” as part of the Heritage Tree Ordinance as “a tree that meets at least one of the criteria of the Heritage Tree ordinance, but that has not yet been placed on the Heritage Tree list by the City Council.”
	5.6.6	Short-term	Develop an ordinance that requires posting of a bond to assure that trees designated for preservation are not harmed during the construction of a development project. Require signed agreement from property owner to continue to preserve the designated trees, with this agreement passing to subsequent owners.
Policy 5.7			Keep heritage tree and candidate heritage tree documentation up to date.
	5.7.1	Short-term	Assure heritage trees are noted in the city’s GIS system and property files. Assure they are documented in the Residential Property Reports.

TOPIC 5: HERITAGE TREES AND LANDSCAPES			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	5.7.2	On-going	Periodically update the Candidate Heritage Tree list.
Policy 5.8			Promote historic landscape locations that were subjects of the early plein air painters and that represent Laguna Beach.
	5.8.1	Short-term	Participate in and support community projects to add appropriate documentation and exhibits to the Historic American Landscapes Survey (HALS) housed in the Library of Congress.
	5.8.2	On-going	Foster appreciation for Laguna Beach historic landscapes, including plein air painting events in historic locations.

TOPIC 6: FIRE SAFETY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Prioritized protection of lives, homes, and businesses against dangerous wildland fires while maintaining high value landscape ecosystems and aesthetics to the greatest extent practical.**
INTENT			Protection of the City against the ever-present danger of catastrophic wildland fires must be our community's foremost priority. Proper landscape installation and maintenance is a crucial component. The City will implement these fire-safety measures in coordinated consideration for the ecological and aesthetic values that are also important to the community. Indeed, we must focus on fire prevention to protect and preserve our natural environment and architectural heritage as well as our resident's homes.
Policy 6.1			Require appropriate fire preparation and prevention techniques as a condition of wildland urban interface development and in the designated Very High Fire Hazard Severity Zone (VHFHSZ). Implement the guidelines and standards in the Safety Element, the other adopted City Fire and Building regulations and documents (i.e. Vegetation Management Guidelines and Requirements), and other City General Plan elements.
	6.1.1	On-going	Periodically review and update (as needed) criteria, techniques, and policies including the Land Use Element. Refer to fire behavior models and consult with the Fire Department and other fire agencies to determine best practices and performance of ornamental landscape performance in fire events. Develop lists of recommended and non-recommended plants that distinguishes among plants for fuel modification zones, for areas away from the wildland/urban edge, target plants, and invasive plants.
	6.1.2	On-going	Periodically review and update as needed the Fire Department's Landscape/Fuel Modification Guidelines and Maintenance Program/Vegetation Management Guideline.
	6.1.3	Short-term	Evaluate and consolidate lists of recommended, not recommended, and invasive plants for fuel modification areas and for the City as a whole. Include fire, landscape, and ecology/botany professionals in this effort.

TOPIC 6: FIRE SAFETY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	6.1.4	Short-term	Clarify in City guidelines and regulations that target species restrictions apply only to fuel modification zones and not to Very High Fire Hazard Severity Zones, or to City-maintained street trees or other City-maintained trees that are at least 5' from structures.
	6.1.5	Mid-term	Explore Alternative Means and Methods (AM&Ms) as an option to preserve existing trees and allow new trees. Develop Best Management Practices/AM & M list of measures that could allow retention of trees without the necessity for an individualized AM & M report, subject to the approval of the Fire Department.
	6.1.6	Short-term	Periodically review the City's fuel modification zones and proposed expansions. Ensure that the latest technologies and methods are being used to both protect the public and the environment.
	6.1.7	Short-term	Develop Defensible Space component of the Vegetation Management guidelines. Include consideration of preserving the traditional landscape character of Laguna Beach with approaches that will not compromise fire safety, such as: • Avoid removal of trees and vegetation where feasible by providing and enforcing best maintenance practices. • Consider flexibility in plant spacing requirements that recognizes the importance of having trees and shrubbery to screen tall facades, create shade for roofs and outdoor living spaces, provide habitat, and blend with neighboring plantings. • Allow and encourage irrigation of vegetation for fire protection during critical fire periods. • Budget appropriately to provide maintenance oversight and enforcement. • Educate and involve the public in developing and implementing policies. • Develop informational material for ornamental vegetation planting and maintenance for fire prevention.
Policy 6.2			Address coastal sage scrub and chaparral areas that have been converted into grasslands and prevent other conversions from occurring.

TOPIC 6: FIRE SAFETY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	6.2.1	Mid-term	Maintain areas that have been converted and prioritize budgeting for their restoration.
	6.2.2	Mid-term	Study means to reduce adverse environmental impacts of goat grazing and to enhance native habitat protection in areas subject to fuel modification.
Policy 6.3			Promote implementation of defensible space and firefighter access in fuel modification or VHFHSZ areas within existing developments. Require defensible space and firefighter access for all new development or major remodels in fuel modification or VHFHSZ areas. Ensure fire department apparatus access and water supplies are accessible for firefighting. Encourage fuel modification on existing private development to provide for effective fire prevention.
	6.3.1	On-going	As part of permit review, continue to require new development to comply with defensible space and firefighter access requirements through landscaped areas and fire-resistant plant materials with a maintenance program.
	6.3.2	Mid-term	Disseminate relevant information to wildland urban interface and VHFHSZ property owners.
	6.3.3	Mid-term	Pursue community education program funding and volunteer efforts that include a demonstration plot of fire-retardant vegetation and distribution of a brochure detailing recommended planting guidelines for fire hazard areas.
	6.3.4	Short-term	Support an annual community-wide cleanup day to promote safety awareness. Promote landscape maintenance to create and/or maintain defensible space, including vegetation management.

TOPIC 6: FIRE SAFETY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	6.3.5	Mid-term	Document the development thresholds that require a property owner to comply with fuel modification requirements.
Policy 6.4			Promote routing of access roads, trails or fire roads, where feasible, within the fuel modification areas to minimize additional removal of native vegetation.
	6.4.1	On-going	Provide for such access and implement through the City project development and plan check process.
Policy 6.5			As a condition of development for new construction and major remodels, require private responsibility for development and maintenance of fuel modification zones and programs, including a recorded deed restriction acknowledging the fire hazard potential and maintenance responsibility.
	6.5.1	On-going	Assure review and compliance in the plan check, permit, and inspection process.

TOPIC 7: LANDFORM STABILITY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			Minimize potential for landslides and debris flows through landscape and development management strategies.
INTENT			The City has regulations and processes to promote landform stability. Encouragement of proper selection and deployment of sound landscape, irrigation, and development approval practices, particularly on seaside bluffs, hillsides, and areas adjoining hillsides (especially those that have experienced recent slope instability) is crucial to this important public safety consideration.
Policy 7.1			Encourage landscape and development planning and management strategies to avoid slope instability and debris flow problems. Select the best management practices for proposed vegetation and landscape maintenance to maintain and improve landform stability as cited in FEMA Publication 182, "Landslide Loss Reduction: A Guide to State and Local Government Planning," or updated/successor publications from federal and state public safety authorities.
	7.1.1	Short-term	Disseminate relevant information to property owners. Avoid use of plants with high water needs, including turf, in slope-failure prone areas including bluffs, hillsides, and areas above them. Use native and drought-tolerant plants with varying root penetration depth for erosion control and slope stability. Design hillside slope irrigation systems to avoid runoff and erosion. Use water conservation techniques.
	7.1.2	Short-term	Require these strategies in landscape plans and assure implementation through plan check review and inspections, building upon LSHE policies and actions.

TOPIC 7: LANDFORM STABILITY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	7.1.3	Mid-term	Identify sensitive landform areas and require the establishment of a geologically appropriate best management practices for proposed vegetation, slope irrigation, and drainage systems within a certain area, including soil moisture sensors and weather-sensitive irrigation systems.
	7.1.4	Short-term	Investigate the feasibility of incorporating groundwater monitoring for sensitive landform areas that are susceptible to landsliding into the City's Geographic Information System (GIS) sustainability model.
	7.1.5	Short-term	Establish landscape guidelines to be implemented in the aftermath of a fire to mitigate against soil erosion and possible debris flows. Include drainage improvements to reduce runoff and increase infiltration. Guidelines would emphasize allowing native plants to regenerate. They would recommend against seeding with non-native plants in favor of plantings native to the area.
Policy 7.2			Encourage drainage systems that respond to the characteristics of the underlying strata, allowing for on-site percolation where appropriate and for removal of run-off from the site where needed.
	7.2.1	Mid-term	Develop drainage standards that address percolation and export of run-off.
	7.2.2	Short-term	Consider the use of straw wattles and constructed earth swales for selection of suitable options for drainage improvements to reduce runoff and increase infiltration in wildland areas.

TOPIC 7: LANDFORM STABILITY			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	7.2.3	Short-term	Ensure at least annual City maintenance inspection of all terrace drains on private property located proximate to sites of prior landslides and other areas of known slope instability. Prioritize timely, consistent code enforcement activity to make certain that such drainage systems are frequently cleaned and properly maintained by the responsible parties.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
GOAL			**Create a well-maintained sustainable and regenerative community landscape by utilizing feasible, cost-effective, and ecological principles.**
INTENT			The City will carefully manage and maintain landscape based on sound urban design principles, and by conserving habitats and natural resources. Landscapes will be planned and maintained in a manner that minimizes safety hazards to optimize consumption of energy, water, raw materials, and generation and recycling of waste.
Policy 8.1			Encourage landscape layout and plant material selection to create wildlife habitat opportunities compatible with ecological characteristics of adjacent natural habitat, human habitation, fire safety, and landform stability, where applicable.
	8.1.1	Mid-term	Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines.
Policy 8.2			Assure that landscape planning and maintenance is compatible with best and cost-effective habitat management practices, including fuel management, consistent with maintaining fire safety. Refer to Natural Community Conservation Plan (NCCP), and California State Wildlife Action Plan for habitat management practices.
	8.2.1	Mid-term	Review all applicable City programs for consistency with habitat management practices. Update practices as new methods and technologies become available.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	8.2.2	Mid-term	Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines.
	8.2.3	Short-term	Continue to assure that native vegetation is not removed without proper review, per Title 12 of the Municipal Code, and that all required restoration efforts are implemented as may be required.
Policy 8.3			Minimize impervious surfaces and maximize drainage infiltration in new streetscapes and other new development, taking into account the recommendations of the geotechnical consultant.
	8.3.1	Short-term	Evaluate thresholds, effectiveness, and standards for Water Quality Management Plans for new projects and improve where needed.
	8.3.2	Mid-term	Include minimizing impervious surface as part of Scenic Highway Corridor Protection Programs and other streetscape plans.
	8.3.3	Short-term	Evaluate the ordinance standards for the amount of hardscape allowed in residential and other urban zones, and improve where needed. Consider requiring permits for site paving to ensure a balance of landscaped and hardscape areas.
	8.3.4	Short-term	Limit expansion of driveway aprons and addition of parking pads to prevent excessive paving along street frontages.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	8.3.5	On-going	Implement the City Local Implementation Plan as required by the NPDES MS4 permit to minimize the impacts from urban runoff and improve water quality.
Policy 8.4			Where indicated by geological conditions, minimize impervious surfaces and maximize drainage infiltration in existing properties and identify opportunities to increase drainage infiltration including conversion of impervious surfaces to pervious surfaces.
	8.4.1	Mid-term	When technologically feasible and cost-effective, develop an inventory of public impervious surfaces that have potential for increased infiltration including conversion to pervious surfaces.
	8.4.2	Mid-term	Minimize site runoff at existing public properties and consider water infiltration retrofits including pervious pavement.
	8.4.3	Mid-term	Develop a phased master plan and capital improvements budget to implement runoff infiltration retrofits.
Policy 8.5			Where indicated by geological conditions, encourage drainage system designs that detain or retain and naturally treat runoff through bioswales, wetlands filtration system creation, or other methods.
	8.5.1	Short-term	Develop informational materials on bioswales and wetlands filtration systems for applicants. Include on zoning plan check and design review checklists and guidelines.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
Policy 8.6			Encourage drought-resistant and native landscape plant use that considers plant groupings, fire safety, slope stability, salt tolerance, location for view preservation, and the long-term health of the ecosystem.
	8.6.1	Short-term	Follow recommendations and consult plant lists contained in the Landscape and Scenic Highways Resource Document as well as those provided in Water Use Classifications of Landscape Species (WUCOLS III), University of California Cooperative Extension, California Department of Water Resources.
	8.6.2	Short-term	Continue to promote public awareness of “California friendly” drought-tolerant landscape design through information guides and landscape plan check requirements. Develop or improve existing guidelines for drought resistant and native landscape material use, consistent with fire safety.
Policy 8.7			Encourage minimizing turf in landscapes except where it has a specific function, such as athletic fields, public activity areas, and historical locations.
	8.7.1	Short-term	Develop zoning plan check and design review process benchmarks for turf grass use. Inform applicants of water district incentives for replacement of turf with “California friendly” plants.
Policy 8.8			Encourage landscape plant material selection that minimizes water, fertilizer, and pesticide use, that are low-maintenance, fire safe, and that create plant communities with compatible habitat opportunities.
	8.8.1	Short-term	Develop information materials and templates for applicants.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	8.8.2	Short-term	Include these criteria in landscape design review checklists.
Policy 8.9			Encourage appropriate plant material selection and placement to minimize the potential deleterious effects of pests and diseases, as well as impacts from salt spray and wind in coastal influence zones.
	8.9.1	Short-term	Develop strategies to implement this policy based on best science and practices and include in updates to the LSHRD.
Policy 8.10			Prohibit planting of invasive plant species as determined by the City.
	8.10.1	On-going	Consult with the California Invasive Plant Council (CALIPC) for an up to date list of invasive plants and continue to promote public awareness of invasive plant species, and requirements for removal.
Policy 8.11			Continue invasive plant removal citywide and prohibit their installation in new or renovated landscapes.
	8.11.1	Short-term	Develop a phased invasive plant removal and restoration program that replaces invasive plants with native and/or non-invasive drought tolerant plants, with incentives for compliance and penalties for non-compliance.
	8.11.2	Short-term	Proactively enforce the provisions of the invasive plant regulations to go beyond the complaint-driven process.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	8.11.3	Short-term	Provide local nurseries with regularly updated lists of prohibited plant species.
Policy 8.12			Require attractively landscaped and designed pedestrian walkways and bicycle trails, consistent with sustainability principles, to encourage use and provide shading to reduce sun exposure.
	8.12.1	Short-term	Review City pedestrian walkway and trails systems to identify improvement opportunities. Coordinate as applicable with scenic highways Corridor Protection Plans.
Policy 8.13			Continue to promote minimizing unnecessary light and glare. Promote landscape design to shade and shield absorptive dark colors, expanses of glass, and extensive hardscape.
	8.13.1	Short-term	Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines.
Policy 8.14			Encourage landscaping with plant species that produce edible products for local consumption.
	8.14.1	Mid-term	Provide informational materials with practical examples for applicants and the community in general.
	8.14.2	Short-term	Create an incentive for a property purchase program to create community gardens, including city financial or in-kind contributions.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	8.14.3	Short-term	Recommend that the Department of Community Services and the Recreation Committee include community gardens in their recreation offerings; work with Community Development to develop a community garden program and plan.
	8.14.4	Mid-term	Investigate opportunities to coordinate local production with Farmer's Market and food pantry services.
	8.14.5	Mid-term	Promote appropriate sites for planting of fruiting trees and shrubs in City parks and maintained areas with local community involvement.
Policy 8.15			Encourage small-plot agriculture, including community gardens and commercial agriculture such as hydroponics and other resource-conserving agronomic technologies.
	8.15.1	Mid-term	Investigate current zoning to determine if impediments exist to implement this policy and recommend changes.
	8.15.2	Short-term	Identify potential locations for community gardens on underutilized public property.
	8.15.3	Short-term	Implement ordinance to enable property tax reduction for private properties committed to community urban agriculture/community gardens.
Policy 8.16			Promote landscape life-cycle cost analysis considering plant selection, longevity, slope stability, fire safety, view preservation, fertilizer and pesticide minimization, and maintenance cost reductions, such as water use, tree trimming, lawn care, etc.

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
	8.16.1	Mid-term	Develop public informational materials for this policy.
Policy 8.17			Promote local yard waste recycling, composting, and mulching.
	8.17.1	Short-term	Develop informational materials for applicants. Include on zoning plan check and design review checklists and guidelines.
	8.17.2	Short-term	Encourage greater participation in local green waste recycling and investigate more frequent compost re-distribution.
Policy 8.18			Encourage sound pruning and discourage severe pruning and topping of trees that results in unsafe branching, unsightly tree forms, excessive green waste, and excessively thick regrowth.
	8.18.1	Short-term	Provide informational brochure and materials on sound pruning practices. Consider an ordinance that sets standards preventing severe pruning of trees and shrubs. Refer to ANSI A300 standards and the pruning and maintenance guidelines in the LSHRD.
Policy 8.19			Apply sound landscape maintenance practices for City parks.
	8.19.1	On-going	Use pruning practices per the International Society of Arboriculture (ISA) for tree care and conduct them to improve aesthetics, for the continued health of the tree and to reduce potential hazards. Specific pruning goals include: • Improve aesthetic characteristics

TOPIC 8: DESIGN AND MAINTENANCE			
POLICY	**ACTION ITEM**	**TIMING**	**DESCRIPTION**
			• Improve structural strength and reduce failure potential (including dead branch removal) • Repair structural damage from wind loading • Enhance tree health and influence flowering and fruiting of some species • Provide clearance for pedestrians, vehicles, and structures and ensure safety and security for residents and visitors, and • Prevent or mitigate a pest problem (Implementation: On-going)
	8.19.2	On-going	Protect City trees whenever possible and feasible, and strive to replace trees after site evaluation is completed to verify that the site is suited for replanting when a tree is removed per the City's tree removal policy.