ITEM W 32a

CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
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RECORD PACKET COPY

December 19, 2002

TO: Commissioners and Interested Parties

FROM: Peter Douglas, Executive Director
Chuck Damm, Deputy Director
Gary Timm, District Manager
Barbara Carey, Coastal Program Analyst

SUBJECT: **REVISED FINDINGS** for the City of Malibu Local Coastal Program (Land Use Plan and Local Implementation Program), as adopted on September 13, 2002

SUMMARY OF STAFF RECOMMENDATION

Staff recommends that the Commission adopt the following findings in support of the Commission's action on September 13, 2002 to adopt the City of Malibu Local Coastal Program. The motions and resolutions for these actions begin on page 7.

Commissioners on the Prevailing Side: Desser, Dettloff, Hart, Kruer, Nava, Peters, Potter, Reilly, Wan, and Woolley.

STAFF NOTE

On August 31, 2000, the State Legislature passed Assembly Bill 988 which added Section 30166.5 to the Coastal Act. Subsection (a) requires the Coastal Commission to prepare an initial draft of the Land Use Plan for the City of Malibu and submit it to the City on or before January 15, 2002. Subsection (b) requires the Commission, after public hearing and consultation with the City of Malibu, to certify a Local Coastal Program for the City by September 15, 2002. Section 30166.5 also requires the City to immediately assume coastal development permitting authority subsequent to certification of the LCP by the Commission and provides that, notwithstanding specified requirements for the review and approval of development projects, no application for a coastal development permit shall be deemed approved if the City fails to take timely action to approve or deny the application.

The Draft LCP Land Use Plan for the City of Malibu was prepared pursuant to the requirements of AB 988 and Public Resources Code Section 30166.5. The Draft LUP was released for public review and comment in mid-September, 2001. A public meeting was held in Malibu on October 30, 2001 to receive public comment on the draft Land Use Plan. The Commission considered the Draft Land Use Plan at public hearings on

November 15, 2001 and January 10, 2002. The Initial Draft Land Use Plan was submitted to the City of Malibu on January 14, 2002.

After the Initial Draft LUP was completed, Commission staff and City staff developed the Draft Local Implementation Program to implement the policies of the Land Use Plan. Commission staff developed several chapters of the LIP and the City staff developed several chapters. The chapters were then integrated into the Draft Local Implementation Plan.

At the June 2002 hearing, the Commission held a public workshop on the subject of environmentally sensitive habitat areas in the Santa Monica Mountains.

The Commission considered the Revised Draft Land Use Plan and the Draft Local Implementation Plan at the July 10, 2002 hearing. Based on Commission direction, the revised draft LUP and Draft LIP, both dated June 2002, were revised. The Final Draft LUP and Final Draft LIP were released for public review on August 23, 2002. Several recommended changes were made to the LCP by staff in an addendum document dated September 10, 2002. The Final Draft LUP and LIP were considered by the Commission at its hearing on September 12-13, 2002. Several changes were made to the Final Draft LUP and LIP, both at the recommendation of staff and by vote of the Commission, during the hearing. (Exhibit 1 to this report shows those policies that were modified during the hearing). The LCP, including the LUP and LIP, was adopted by the Commission on September 13, 2002. The changes made to the Final Draft LUP and LIP are reflected in the attached revised findings. Throughout the document, references to LUP policy numbers or LIP section numbers have been updated to accurately reflect the numbering of the LCP as adopted. Following are the pages where other modifications have been made to the findings to reflect changes made to the LCP, through the September 10, 2002 addendum and during the September 12-13, 2002 hearing.

ISSUE	ADDENDUM/HEARING	PAGES
Bluffs Park	Hearing	29-30
Point Dume Canyons	Hearing	66, 68, 73, 81, 82
Habitat Buffers	Addendum	75
Maximum Development Area (Exclusion of Graded Slopes for Engineering Purposes)	Hearing	76
Landscape Coverage in Thinning Zone (Zone C)	Addendum	83
Balancing Fire Protection and Environmental Protection	Addendum	120
Civic Center Development	Hearing	128-130

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STAFF RECOMMENDATION

Following a public hearing, staff recommends the Commission adopt the following revised findings.

Motion

I move that the Commission adopt the attached revised findings in support of the Commission's action on September 13, 2002 adopting the Local Coastal Program, including the Land Use Plan and Local Implementation Plan, for the City of Malibu, in accordance with the requirements of Public Resources Code Section 30166.5.

Staff recommends a **YES** vote. Passage of this motion will result in the adoption of revised findings, as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the September 13, 2002, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action are eligible to vote on the revised findings.

Resolution

The Commission hereby adopts the findings set forth below for approval of the Local Coastal Program, including the Land Use Plan and Local Implementation Plan, for the City of Malibu, on the ground that the findings support the Commission's decision made on September 13, 2002, and accurately reflect the reasons for that decision.

FINDINGS

The Commission hereby finds and declares:

A. Description of the City of Malibu

The City of Malibu, which incorporated on March 28, 1991, lies entirely within the State designated Coastal Zone and extends approximately 25 miles from the Ventura County Line on the west to Topanga Canyon Boulevard on the east. Inland, the City's Coastal Zone boundary extends approximately 1 to 1 & 1/2 miles and includes portions of the coastal terrace and slopes of the Santa Monica Mountains.

The shoreline along the City of Malibu contains sandy beaches, bluff backed crescent coves, and rocky headlands. The inland portion generally contains the major canyons and watersheds of the mountain range. The canyons constitute the natural drainages that run down toward the Pacific from the mountain peaks, located both within and

outside of the unincorporated Los Angeles County Santa Monica Mountains Coastal Zone and the interior valleys.

The marine, canyon, and watershed environment westward of Malibu Canyon Road to the Ventura County line is in a relatively undisturbed state. The slopes and hillsides are dominated by coastal sage scrub and chaparral vegetation and large areas of riparian habitat in the canyons. Along the coast, kelp beds are found, providing habitat for many species of sea life. The natural environment from the Civic Center eastward has suffered some biological degradation. Grading and development have eliminated native hillside vegetation in some areas, portions of creeks have been channelized, and kelp beds have largely diminished or disappeared but reef and rock zones still provide habitat for many species of fish.

Broad sandy beaches at Leo Carrillo, Nicholas Canyon, Zuma, Westward, Point Dume, Surfrider and other beaches provide sunbathing, swimming, surfing, board sailing and other recreational opportunities to the public. Small, public pocket beaches backed by high bluffs provide more secluded and natural beach environments in the City's western portion. The more urbanized eastern portion of Malibu contains several vertical access points to beaches located behind residential communities. Access to many beaches throughout the City, however, is restricted due to blockage by development including gated communities or private compounds, unopened accessways, and lack of parking. Access to all beaches along the Malibu coast is provided by Pacific Coast Highway and a limited number of cross-mountain roads. The capacity of Pacific Coast Highway is exceeded regularly on summer weekends as coastal visitors and residents attempt to reach the beach or enjoy a drive along the coast.

Land use patterns vary considerably throughout the City. Commercial and residential development flanks the Pacific Coast Highway from Topanga to Point Dume. The Malibu Civic Center, located at the base of Malibu Canyon, and Point Dume Plaza contain the major commercial areas. The balance of the City generally consists of residentially zoned lots in small clusters of approximately 10,000 square feet to an acre in size, mid-sized parcels of 2, 5 and 10 acres and large parcels exceeding 20 acres on the coastal slopes throughout the City up to 300 acres in the extreme western portion of the City.

B. Local Coastal Planning History

An LCP is defined as "a local government's land use plans, zoning ordinances, zoning district maps, and, within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of [the Coastal Act] at the local level" (PRC Section 30108.6). The Land Use Plan is defined as " the relevant portion of a local government's general plan, or local coastal element which are sufficiently detailed to indicate the kinds, location, and

intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions (PRC Section 30108.5).

Efforts to complete a Local Coastal Plan in conformance with the California Coastal Act for the Malibu and Santa Monica Mountains area have been ongoing since shortly after the Coastal Act became effective on January 1, 1977. Prior to the City's incorporation, the initial planning, public hearings, and submittals were the responsibility of Los Angeles County. Initial studies and planning documents addressed the larger coastal zone for Malibu and the Santa Monica Mountains, which extends approximately 5 miles inland.

The first phase of the Local Coastal Plan prepared and submitted by the County consisted of the "Issue Identification/Work Program for the Malibu Area." The work program, which was approved by the Coastal Commission in December 1978, identified the specific issues to be addressed in the LCP Land Use Plan (LUP). The second phase consisted of preparation and submittal of the Land Use Plan. In December 1982, the Los Angeles County Board of Supervisors approved a Land Use Plan and subsequently submitted it to the Coastal Commission. After numerous public hearings and revisions the LUP was certified by the Coastal Commission on December 11, 1986. Since certification in 1986, the policies of the certified Land Use Plan have been used for guidance by the Coastal Commission in its permit decisions.

On August 31, 2000, the State Legislature passed Assembly Bill 988, which added Section 30166.5 to the Coastal Act. Subsection (a) requires the Coastal Commission to prepare an initial draft of the Land Use Plan for the City of Malibu and submit it to the City on or before January 15, 2002. Subsection (b) requires the Commission, after public hearing and consultation with the City of Malibu, to certify a Local Coastal Program for the City by September 15, 2002. Section 30166.5 also requires the City to immediately assume coastal development permitting authority subsequent to certification of the LCP by the Commission and provides that, notwithstanding specified requirements for the review and approval of development projects, no application for a coastal development permit shall be deemed approved if the City fails to take timely action to approve or deny the application.

In completing the Malibu Local Coastal Program (Land Use Plan and Local Implementation Plan), staff relied on several prior planning documents to varying extent. In particular, the 1986 Commission Certified Land Use Plan for Malibu and the Santa Monica Mountains was used as the base document for developing policies for the Land Use Plan. Numerous revisions and additions were required, however, to reflect circumstances that have changed and new issues that have arisen since the 1986 certification as well as the geographic boundary change resulting from the City's incorporation in 1991. Staff also relied on the City's existing General Plan Land Use Map designations along with the 1986 LUP designations. The LUP Land Use Map and the LIP Zoning Map largely reflect the City's existing General Plan land uses although the designation of some properties has been changed to reflect their acquisition by

local, state, or federal park agencies for public open space purposes. Additionally, there have been some modifications in the Civic Center area relative to the Coastal Act priority for visitor-serving commercial use above general commercial use. Further, some residentially zoned parcels have been recommended for reduced density designations due to steep slopes, the presence of environmentally sensitive habitat areas, or geological restraints.

C. Public Access and Recreation

1. Coastal Act Provisions

A broad policy goal of California's Coastal Management Program is to maximize the provision of coastal access and recreation consistent with the protection of public rights, private property rights, and coastal resources as required by the California Constitution and provided in Section 30210 of the Coastal Act. Several additional policies contained in the Coastal Act, which are herein incorporated into the Land Use Plan, work to meet this objective. The Coastal Act requires that development not interfere with the public right of access to the sea (Section 30211); provides for public access in new development projects with limited exceptions (Section 30212); encourages the provision of lower cost visitor and recreational facilities (Section 30213); addresses the need to regulate the time, place, and manner of public access (30214); specifies the need to protect ocean front land suitable for recreational use (Section 30221); gives priority to the use of land suitable for visitor-serving recreational facilities over certain other uses (Section 30222); requires the protection of upland areas to support coastal recreation, where feasible (Section 30223); and encourages recreational boating use of coastal waters (Section 30224).

2. Coastal Act Policies

Section **30210** of the Coastal Act states that:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

The Coastal Act also requires that development not interfere with the public right of access to the sea in Section 30211:

Section 30211

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212 of the Coastal Act provides for public access in new development projects with limited exceptions and provides for the distribution of parking over a wide area in Section 30212.5:

Section 30212

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,

(2) adequate access exists nearby, or,

(3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

(b) For purposes of this section, "new development" does not include:

(1) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.

(2) The demolition and reconstruction of a single-family residence; provided, that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.

(3) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than l0 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.

(4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.

(5) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be required unless the commission determines that the activity will have an adverse impact on lateral public access along the beach.

As used in this subdivision "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

Section 30212.5

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

In addition, the Coastal Act encourages the provision of lower cost visitor and recreational facilities in Section 30213:

Section 30213

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The Commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.

Section 30214 of the Coastal Act addresses the need to regulate the time, place, and manner of public access:

Section 30214

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

The Coastal Act specifies the need to protect ocean front land suitable for recreational use in Sections 30220 and 30221:

Section 30220

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30221

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

The Coastal Act also gives priority to the use of land suitable for visitor-serving recreational facilities over certain other uses in Section 30222:

Section 30222

The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Section 30223 requires the protection of upland areas to support coastal recreation, where feasible:

Section 30223

Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

The Coastal Act encourages recreational boating use of coastal waters in Section 30224:

Section 30224

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

Finally, the Coastal Act also facilitates public access by providing for public transit, alternative means of circulation and adequate parking in new development in Section 30252:

Section 30252

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

3. Introduction

The beaches of Malibu are world-famous tourist destinations for millions of visitors annually from foreign countries, all 50 states of the U.S., as well as for residents of cities and towns located throughout California. In addition, the Santa Monica Mountains area within and adjacent to the City provides an extensive network of public trails that traverse and connect Federal, State, and County parklands, and a system of heavily used historic trails on private land. Overall, a wide variety of recreational opportunities exist in the area including hiking, biking, horseback riding, camping, fishing, picnicking, nature study, surfing, diving, and swimming. Public access to and along the shoreline and trails, and the provision of public recreational opportunities and visitor-serving facilities such as campgrounds, hotels and motels has historically been a critical and controversial issue in Malibu. Continuing conflicts in providing maximum public access to and along the shoreline and trails, as mandated by the Coastal Act, is evidenced in the Coastal Commission's permit regulatory reviews and public hearings concerning proposed projects in Malibu since 1976.

The loss of coastal recreation opportunities resulting from development occurring over the past 25 years represents a significant adverse impact to the availability of public access and recreation in Malibu. Defined broadly, these opportunities include not only the physical availability of access and recreation areas, but also the ability of the public to reach and utilize these sites. Coastal access is generally viewed as an issue of physical supply, and includes lateral access (access along a beach), vertical access (access from an upland street, parking area, bluff or public park to the beach), coastal blufftop trails, and upland trails that lead to the shore or traverse inland parklands within the coastal zone. These inland parks provide significant access and recreation opportunities in the City and Santa Monica Mountains coastal zone, and are as important to coastal access as shoreline accessways.

While the physical supply of access is a primary factor in assuring access opportunities, the Local Coastal Plan cannot view the issue of supply in isolation of a number of other factors. These variables include the availability of transit to beaches, parking availability, provision of other support facilities such as restrooms and picnic areas, addressing user demands and conflicts, and maintenance of a diversity of coastal recreation experiences. Impacts to any one of these variables may ultimately affect the availability and use of the physical supply of access. For example, without adequate parking or alternate transportation, users will have difficulty reaching the shoreline or trailhead. Therefore, managing and increasing coastal access and ensuring that growth and development does not cumulatively impact the ability of the public to access the shoreline and trails, involves improving not only the physical supply of access, but all of the other variables that contribute to ensuring maximum coastal access.

To understand the importance of protecting and maximizing public access, it is critical to know that the public already possesses ownership interests in tidelands or those lands below the mean high tide line. Because the mean high tide line varies, the extent of lands in public ownership also varies with the location of the mean high tide line. By virtue of its admission into the Union, California became the owner of all tidelands and all lands lying beneath inland navigable waters. These lands are held in the State's sovereign capacity and are subject to the common law public trust. The use of these lands is limited to public trust uses, such as navigation, fisheries, commerce, public access, water-oriented recreation, open space, and environmental protection. The protection of these public areas and the assurance of access to them lies at the heart of Coastal Act policies requiring both the implementation of a public access program and the minimization of impacts to access through the regulation of development.

The recommended policies contained in the Land Use Plan carry out the provisions of the Access and Recreation policies of Chapter 3 of the Coastal Act in several ways. Some recommended policies reflect the intent of several relative Coastal Act policies. This policy section begins with several broad overriding policies which carry out the combined mandate of several, if not all, of the Coastal Act policies cited above regarding Access and Recreation. Other recommended policies are more specific to the intent of a single Coastal Act policy or certain inter-related policies. In other words, it is necessary to consider all of these policies as a unified whole as well as individually to be found consistent with the Coastal Act. These recommended policies can be grouped into a few distinct issue categories, however. These include:

- Provisions for lateral access along and vertical access to the coast (30210, 30211, 30212, 30214);
- Provisions for trails and bikeways, inland and along the coast, including the recently designated California Coastal Trail (30210, 30211, 30212, 30214);
- Provision and protection of parking, transit modes and other necessary infrastructure that facilitate public access and recreation (30212.5, 30214, 30252);
- Provision and protection of visitor and recreation serving uses on a priority basis (30213, 30220, 30221, 30222, 30223);
- Provisions for acquiring new and protecting existing parklands for open space and public recreation (30210, 30213, 30221, 30223, 30252).

The LUP initially establishes a number of policies which broadly provide for the overriding objectives of the Access and Recreation policies of Chapter 3 of the Coastal Act - to protect, enhance and expand coastal access and recreation opportunities as a resource of regional, state and national importance in Malibu (P2.1). Several policies provide for the protection and/ or provision of access and recreation including existing prescriptive rights in new development projects and provides for public access or trail improvements as a permitted use in all land use and zoning designations, including Environmentally Sensitive Habitat Areas (2.2 – 2.8, 2.11). Other broad policies provide for communication and coordination with other public and park agencies, private

organizations and volunteer organizations to accept and assume responsibility for acquiring, maintaining and operating public accessways and trails, recreational areas or public open space (2.9 – 2.16). In addition, several policies provide for certain limited uses under limited circumstances on public beaches and recreation areas such as roads, parking, transit and other support facilities, signs, temporary events, and limited low-intensity visitor-serving commercial and recreational facilities on non-sand areas (2.17 – 2.26). These policies are implemented by the Public Access and Recreation Ordinance (Chapter 12) in the Implementation Plan or Zoning and Development Standards sections (Chapter 3) relative to Parking and Signs which are discussed in greater detail in the following sections.

4. Lateral Access, Vertical Access, and Trails

As previously stated, the public already possesses ownership interests in tidelands or those lands below the mean high tide line. These lands are held in the State's sovereign capacity and are subject to the common law public trust. The protection of these public areas and the assurance of access to them lies at the heart of Coastal Act policies requiring both the implementation of a public access program and the minimization of impacts to access and the provision of access, where applicable, through the regulation of development. To carry out the requirement of Section 4 of Article X of the California Constitution, PRC Section 30210 provides that maximum access and recreational opportunities be provided consistent with public safety, public rights, private property rights, and natural resource protection. PRC Section 30211 requires that development not interfere with the public's right of access to the sea with certain exceptions. Furthermore, PRC Section 30212 requires that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects with certain exceptions such as public safety, military security, resource protection, and where adequate access exists nearby. Certain minor types of development would also not require the provision of access. Finally, PRC Section 30214 provides that the implementation of the public access policies take into account the need to regulate the time, place, and manner of public access depending of such circumstances as topographic and geologic characteristics, the need to protect natural resources, proximity to adjacent residential uses etc.

All projects requiring a Coastal Development Permit must be reviewed for compliance with the public access and recreation provisions of Chapter 3 of the Coastal Act and, where applicable, with the access and recreation policies of a certified Local Coastal Program. Based on the access, recreation, and development policies contained in Chapter 3 of the Coastal Act, the Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects along the coast in Malibu and elsewhere to reduce interference with or eliminate impacts on public access. Impacts to access can occur from physical blockage of existing access, direct occupation of sandy beach by structures as well as

from impacts on shoreline sand supply and profile caused by seawalls and other shoreline protective structures.

Development on the beach, particularly the placement of shoreline protective devices, has been found to cause a number of effects on the dynamic shoreline and the availability of public land. As a result, development can often lead to significant impacts on public access. Development on a beach often leads to a change in the beach profile. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and the mean high water lines. This reduces the actual area in which the public can pass on its own property. This steepening of a beach can also lead to a progressive loss of sand on the beach. This material is not then available to nourish the offshore bar which usually provides the sand to replenish beaches after winter storms. The lack of an effective bar can allow such high wave energy on the shoreline that material may be lost far offshore where it is no longer available to nourish the beach resulting in a smaller beach. In addition, shoreline protective devices cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches and by their direct occupation of sandy beach area.

The permitting agency must also consider whether a project affects any public right to use the shoreline that exists independent of the public's ownership of tidelands and of public rights protected by the common law public trust doctrine. Generally, there are three additional types of public use: (1) recreational rights in navigable waters guaranteed to the public under the California Constitution and state common law; (2) any rights that the public may have acquired under the doctrine of implied dedication based on continuous public use over a five-year period; and (3) any additional rights that the public may have acquired through public purchase or offers to dedicate access.

As stated above, the beaches, trails, and parklands in the City of Malibu are extensively used by both local residents, visitors from other communities throughout the Los Angeles metropolitan area and across the state as well as by visitors from throughout the nation and other countries. Most planning and demographic studies indicate that attendance at recreational sites in southern California will continue to increase significantly over the coming years. The public has the right to access and use the shoreline under the public trust doctrine, the California Constitution, and California common law. Therefore, it is necessary that the Local Coastal Program must protect public access rights by assuring that any proposed shoreline development does not interfere with those rights.

To eliminate or reduce potential impacts from development on public access and recreation, the Commission, in numerous permit actions, has often required that new shoreline development be located as far landward as possible in order to reduce adverse impacts to the sand supply and public access resulting from the proposed development. In addition, the Commission has also required that public access to or along the shoreline be provided in new development projects as mitigation for adverse

impacts to beach sand supply and/or public access. This form of required mitigation is usually accomplished through an offer-to-dedicate (OTD) an easement for public use.

The requirement for the recordation of an OTD, however, does not ensure public access; the offers must be accepted by a managing entity, and, for vertical easements which often require some form of physical improvement, be opened for public use. Data and information assembled by Commission staff have shown that, over the years, while development has been allowed to proceed, the mitigation has, in many cases, not been fully satisfied (ReCap, 1999). Furthermore, an OTD is valid for a limited time period. OTDs, in many cases, are not required to be made available for public use until the easement is accepted for management by a public agency or non-profit organization. Therefore, it is important that the LUP contain provisions to ensure that OTDs required as a condition of development are not only accepted prior to their expiration date, but that they are opened, improved, where necessary, and managed for public use.

The Coastal Act policies discussed above relative to the protection and provision of public access to and along the shoreline are also applicable to the protection and provision of public trails as well. In addition to the policies previously cited, PRC Section 30221 protects oceanfront land suitable for recreation for such uses unless all demand for public, or commercial, recreational use has been provided. Furthermore, PRC Section 30223 provides that upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

The Santa Monica Mountains area provides an extensive network of public hiking and equestrian trails that traverse and connect Federal, State, and County parklands, and a system of heavily used historic trails on private lands. These trails also serve as alternative means of access to beach and mountain parklands. In order to preserve and formalize the public's right to use these trails, Los Angeles County adopted the Malibu/Santa Monica Mountains Trails Plan in 1982. The plan identified 23 proposed trail routes including the Backbone Trail, the Coastal Slope Trail, and numerous cross-mountain lateral trails linking the San Fernando Valley with numerous mountain and beach parks. The public parklands, beaches, and other areas made accessible by the hiking and equestrian trails identified in the Trails Plan, and the spectacular coastal and mountain views from these trails, are among the coastal resources protected by the public access and recreation policies of the Coastal Act. However, the existing, interconnected system of public and historic trails, widely used by the public to access and enjoy the beaches and parklands of the Santa Monica Mountains, is at risk today by the ongoing development of privately owned lands.

In permitting residential development in Malibu and the Santa Monica Mountains the Commission has found that in order to ensure that the public would continue to be able to use existing hiking and equestrian trails, adverse effects to those trails arising from such development would need to be minimized and, if necessary, mitigated. In its permit actions, the Commission has frequently required an offer-to-dedicate (OTD) an easement for public trail use when proposed development would adversely affect the

public's ability to use one of the trails identified in the Trails Plan or a trail known to have been historically used by the public. The Los Angeles County Land Use Plan, certified by the Commission in 1986, incorporated the 1982 Trails Plan and included policies which called for mapped trails to be dedicated as a condition of property development. The LUP also contained numerous other policies supporting the development of a regional system of trails to provide access to and between the beach and mountain parks. In a more recent action to approve the previously mentioned ReCap Project in 1999, the Commission found that projected population increases in and near Malibu and the Santa Monica Mountains will also increase demand for coastal recreational opportunities, including trails in the mountains.

One of the major concerns identified in the ReCap study is that recordation of an offer to dedicate (OTD) a public trail easement, similar to an OTD for vertical or lateral beach access, does not ensure the availability of public access. As with beach access, a recorded offer must be accepted, opened, and managed by a public agency or acceptable non-government entity before the land becomes available for public use. Until trail OTDs are actually opened for public use, however, the impacts to the public from private development are not fully mitigated. Between 1978 and 1997 the Commission required an OTD for a public trail easement as a special condition of approval on 172 coastal development permits. Of the 172 permits approved by the Commission with a trail easement OTD condition, however, only 8 permits (encompassing 23 parcels) have had the OTD recorded and accepted (by the Santa Monica Mountains Conservancy) and none are yet open for public use (ReCap, 1999). An additional 80 permits (encompassing 107 parcels) have resulted in recorded OTDs but none have been accepted (ReCap, 1999). The 21-year period for recordation established by the permit were due to start expiring in 1999 as well. Those that were at the deadline were accepted prior to their expiration, however.

Barriers to accepting and opening recorded OTDs typically include liability concerns, costs of managing and maintaining the easements, and the geographic distribution and physical characteristics of the individual easements. Adding to these limitations, the use of a trail easement OTD requirement in permit actions has been severely restricted by court decisions over the last decade. Therefore, it is even more important that the Commission, and the City through it's LCP, implement a policy approach requiring a more pro-active role in ensuring that recorded OTDs are accepted and opened for public use.

a. Land Use Plan Policies

The LUP contains several policies to insure the protection and provision of public access in new development along with the consideration of public safety needs, private property rights, and the protection of natural resources, where applicable. Several policies provide specifically for the requirement of an offer to dedicate a lateral or vertical public access easement as a special condition in new development projects

where a nexus is demonstrated between the proposed development and its impact on public access. These policies also provide the physical standards for locating such easements (2.66 – 2.68). Other policies provide for the opening, construction and maintenance of new accessways or the ongoing operation of existing accessways as well as for the acceptance, operation and maintenance of offers to dedicate beach or trail access easements (2.40 – 2.41, 2.69 – 2.71, 2.83 – 2.85). Additional policies provide for the consideration of public safety, minimizing impacts on private property and adjacent private uses such as residential dwellings, and for the protection and enhancement of sensitive natural resources in providing and regulating public access (2.73 – 2.75). Policy 4.24in the Shoreline Development Chapter requires all applicants for new development along the shoreline to obtain a determination from the State Lands Commission relative to the proposed project's location or impact upon the boundary between public tidelands and private property.

To provide maximum access opportunities and to minimize overburdening any particular area, vertical access locations need to be distributed throughout the City's shoreline. In certifying the Malibu/Santa Monica Mountains Land Use Plan in 1986, the Commission approved standards and objectives to be used for the provision of vertical access for individual beach segments. In approving the LUP, the Commission recognized that different spacing objectives was appropriate for different beaches in Malibu. Closer spacing standards (one accessway per 1000 feet) was required where population density was higher and the distance from the first public road to the beach was relatively short (eastern Malibu). A greater separation distance (one accessway per 2,500 feet) was allowed where population density was lower and where constraints like steep bluffs make the development of accessways more difficult and costly (western Malibu). In certifying the LUP, the Commission found that:

> Applying the standards of separation for each beach as described above will result in the creation of approximately 50 vertical accessways, in addition to public parks and beaches. The Commission finds that this number of vertical accessways in Malibu, if and only if implementation is assured by the LCP, will provide reasonable access to the public tidelands. Furthermore, the standards will distribute that access in such a way as to avoid overuse of any one area, while recognizing the different characteristics of the beaches in Malibu (CCC, 1987).

The Land Use Plan certified for the County of Los Angeles is not legally binding on the City of Malibu. In the Regional Cumulative Assessment Project (ReCap) for Malibu and the Santa Monica Mountains completed and approved in 1999, however, the Commission recommended that, to maximize public access, the City should incorporate, at a minimum, the same standards provided in the 1986 LUP to be sufficient to comply with the access policies of the Coastal Act

The LUP contains specific accessway standards or objectives for specific beaches in the City which largely reflect those contained in the 1986 LUP. These standards are

objectives for public acquisition or dedication requirements in new development requirements where a nexus is found between the proposed development and it's impact on public access. Vertical access standards generally recommend at least one accessway to the shoreline for each 1000 linear feet.

The Land Use Plan contains several proposed policies to protect existing trails and to provide for the requirement, acceptance and opening of trail OTDs where applicable. Policy 2.45 in particular provides that a public trail system be maintained throughout the mountains and along the shoreline that achieves several objectives. Objectives include providing links between trails, parks and major recreational facilities; allowing for flexible design and routing to minimize impacts on adjacent development and fragile habitat; designing trails to accommodate multiple uses, where appropriate, such as hiking, biking and equestrian use; providing public parking at trailheads; providing for safe maintenance; and protecting private property rights.

Policies are included in the Land Use Plan to provide not only for a trail OTD requirement in new development projects, where applicable (2.49 & 2.50), but several policies are provided to ensure that the objective of the OTD requirement is fully realized – that trail OTDs are accepted, opened and managed for public use. Policies 2.46 & 2.47 provide for coordination by the City with federal, state, and County park agencies and with non-profit land trusts and organizations in developing a strategic plan for the acceptance, construction, and operation of recorded trail easements and policy 2.53 provides for City support of efforts to obtain public and/or private funding to purchase parcels and/or easements to complete gaps in the public trail system throughout the City and the Santa Monica Mountains. In addition, several policies previously referenced above in the discussion of shoreline access are applicable to trail access as well relative to realizing the objective of opening trails for public use (2.69-2.71, 2.83-2.85). The LUP also includes policies which provide for safe bikeways and support facilities (2.42 – 2.44), trail campsites (2.48), and for the maintenance, restoration and, in limited circumstances, controlled access within trail areas in order to protect sensitive habitat resources.

Based on the findings provided above including all of the recommended policies contained in the Land Use Plan, the Commission finds that the Public Access and Recreation policies contained in the Land Use Plan for the City of Malibu meets the requirements of and conforms to all of the Public Access and Recreation policies of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

The Public Access and Recreation policies of the City of Malibu Land Use Plan (LUP) are carried out, largely, by the Public Access Ordinance, Chapter 12, in the LCP Local Implementation Plan (LIP). The overall purpose of the Ordinance is to implement the public access and recreation policies of Chapter 3 of the Coastal Act and the adopted LUP of the City's LCP which set forth requirements, standards, and other means to

maximize public access and recreational opportunities to and along the coast and inland trails located in the City as required by Section 30500(a) of the Coastal Act (12.1).

The Public Access Ordinance identifies 5 major types of access: (1) lateral access along or parallel to the sea or shoreline; (2) bluff top access; (3) vertical access between the first public road, trail or public use area and the shoreline, tidelands, or established lateral accessway; (4) trail access along a coastal or inland mountain recreational hiking or equestrian path; (5) recreational access to recreational resources other than those listed above, e.g. parking, viewing areas, and public parks (12.3).

The Public Access Ordinance provides for requiring an offer to dedicate (OTD) an easement or a grant of easement as a condition of approval for new development where the required analysis establishes that the development will adversely affect, either individually or cumulatively, the ability of the public to reach and use public tidelands, trails, or public recreation areas (12.5). The Access Ordinance also provides exceptions where the standards and requirements do not apply (12.6).

The Public Access Ordinance provides standards for the application of access conditions (12.7), which includes minimum requirements for the types of access such as limitations or restrictions on time and manner of use when justified by site characteristics such as documented evidence of environmentally sensitive habitat, or the need to limit access to pass and repass, or limit hours of use for vertical accessways to the shoreline to protect the privacy of residential development. Physical standards for siting and locating required access OTDs or grants of easement and legal standards for requiring, describing, and recording accessways are also provided for all types of access.

Standards for the protection of historic public use are also provided subject to a substantial evidence determination that the area used by the public has been impliedly dedicated based on legally established criteria. Standards are also provided for accepting and opening dedicated accessways for public use by an approved public agency or private association that agrees to accept responsibility for maintenance and liability of the access, except in cases where immediate public access is implemented through a deed restriction. The standards state that "any government agency may accept an offer to dedicate or grant of an easement if the agency is willing to operate and maintain the easement" and that the "City shall approve any private association that submits a plan that indicates that the association will open, operate, and maintain the easement in accordance with the terms of the recorded offer or grant of easement." OTDs or grants of public access "shall be accepted for the express purpose of opening, operating, and maintaining the accessway for public use."

The standards also provide for the permitting of facilities to complement public access to and along the shoreline and trails, where feasible and appropriate. Such facilities may include parking areas, restrooms, picnic tables, or other improvements. The Ordinance standards state, however, that no facilities or amenities "shall be required as

a prerequisite to the approval of any lateral or vertical accessway or trail OTD or grant of easement or as a precondition to the opening or construction of the accessway or trail." Existing, but unaccepted and/or unopened access OTDs, easements, or deed restrictions "shall be permitted to be constructed, opened and operated for the intended public use."

The Public Access Ordinance requires that written findings, analysis, and conclusions addressing public access must be included for all approvals, conditional approvals or denials of development projects located between the first public road and the sea (12.8). Such findings are required in any situation involving any type of access where an access dedication is included in the project proposal or required as a condition of approval. Specific legal criteria or standards which must be addressed in the findings are included in the Ordinance. Written findings are also required to support any determination that one of the exceptions provided for in Section 12.6 of the Ordinance applies to any development.

The Public Access Ordinance also provides that any signs posted on a beachfront or public beach requires a CDP and that any signs which purport to identify the boundary between state tidelands and private property or imply or indicate that public access to state tidelands or public lateral or vertical access easement areas is restricted shall not be permitted. All applications for new development on or fronting a beach or the shoreline is required to include a written review and/or determination from the State Lands Commission that addresses the proposed project relative to the boundary between public tidelands and private property. Finally, the Ordinance requires that improvements and/or opening of accessways already in public ownership or accepted OTDs shall be permitted regardless of the distance from the nearest available vertical accessway.

Based on the findings above, the Commission finds that the Public Access and Recreation policies contained in the LCP Implementation Plan for the City of Malibu conforms with, and is adequate to carry out, the policies and provisions of the adopted City of Malibu Land Use Plan relative to public access and recreation.

5. California Coastal Trail

The California Coastal Trail (CCT) which has been designated a Millennium Trail by the Governor of California has been officially established by Senate Bill 908. This bill provides for the construction of the CCT along the state's coastline from the Oregon Border to the border with Mexico, to the extent feasible. This bill requires the State Coastal Conservancy, in consultation with the Coastal Commission and the Department of Parks and Recreation, to coordinate in the planning and development of the CCT. SB 908 also requires other agencies, boards, departments etc. with property interests or regulatory authority in coastal areas to cooperate with the Conservancy, to the extent feasible, in planning and making land available for the trail. This bill also requires the CCT to be developed in a manner that respects property rights, privacy of adjacent property owners and the protection of coastal resources.

a. Land Use Plan Policies

The Land Use Plan includes several policies which provide for the ultimate completion of the CCT link through the City. These policies provide for consultation and coordination with Federal, State, and County Park agencies, the Coastal Conservancy, the Santa Monica Mountains Conservancy, Los Angeles and Ventura Counties and other appropriate public and private entities and interested parties in implementing all essential components of the trail (2.54, 2.55). The LUP also provides for specific design and siting standards and objectives (2.56, 2.57), acquisition and management (2.58), signage program standards (2.59), support facilities (2.60), mapping (2.61), and the LCPs eventual incorporation of the final CCT plan by future amendment (2.62).

Based on the findings above, the Commission finds that the policies contained in the City of Malibu Land Use Plan relative to the California Coastal Trail meet the requirements of and are in conformity with the Public Access and Recreation policies of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

The California Coastal Trail is still in the planning process and no specific implementation policies are included in the LCP other than those policies previously discussed in the Access and Recreation Ordinance which provide for obtaining trail Offers to Dedicate and protecting existing trails. As provided in LUP policy 2.62 eventual incorporation of the final plans for the CCT will be implemented by a future amendment to the LCP.

6. Parking / Transit Facilities / Signage

While the physical supply of access is a primary factor in assuring access to and along the shoreline and coastal trails, there are a number of other factors which are important components of any access program. These factors include the availability of transit to beaches, the availability of public parking facilities, adequate support facilities such as restrooms, and adequate signage. Impacts to any one of these variables may affect the availability or use of the physical supply of access. For example, without adequate parking or alternative transportation, beach and trail users will experience difficulty getting to the access site. Similarly, a lack of adequate support facilities or a site that is perceived as overcrowded may make a particular beach or trail less desirable for use. In other situations, it may be necessary to balance the provision of support facilities with the need to protect sensitive resources. Therefore, managing coastal access involves managing not only the physical supply of access, but all of the other factors that contribute to ensuring maximum access.

The Commission has found, in past actions, that the availability of parking is a critical component of public access in Malibu and other coastal areas. In Malibu, beach and trail access parking may be located in public parking lots or along public roadways. In particular, in areas where there are no public parking lots, on-street parking may be the only parking alternative. This is particularly true of Pacific Coast Highway in some areas of Malibu. In other areas, PCH supplements existing public parking lots. On-street parking provides low-cost access to public beach and trail areas where parking fees can be as high as several dollars per day. Often, on-street parking is the only alternative at inland trailheads. Frequently, increased development along the shoreline and public roads leads to increased competition for spaces and the proliferation of "No Parking" signs and zones. It is often difficult to identify and quantify new "No Parking" or other signs that restrict parking. However, such barriers to public parking have occurred in Malibu in the past, some of which have been resolved through Commission permit actions.

In order to minimize impacts to public parking the Commission has required that new development provide adequate off-street parking. If commercial and other uses do not provide adequate off-street parking, people will utilize on-street public parking which reduces the potential on-street parking normally available for trail and beach users. In Malibu, the availability of on-street parking along PCH and other public streets is limited. The Commission has also required, in permit actions, that non-visitor serving commercial and office development provide for the use of their parking lots by the public for beach access during the off hours of operation, including weekends and holidays. Provisions to ensure sufficient off-street parking and protect existing on-street parking were included in the Malibu/Santa Monica Mountains LUP certified in 1986.

A comprehensive signage program to identify available access points from public roads would also improve access opportunities in Malibu. Although some accessways are currently signed, many accessways are more difficult to locate and may only be recognized by the presence of a gated entrance and trash receptacle. Uncertainty about the existence of an accessway and proximity to existing development inhibit the public from using an accessway that is not adequately signed.

Public access to beaches and trails in Malibu would also be facilitated by the removal of unpermitted physical development, like signs and fences on the beach which inhibit public use of state tidelands as well as dedicated public lateral and vertical easements. Many beaches in Malibu contain numerous signs stating "Private Beach" or "Private Property". Such signs mislead and intimidate the public from legal beach access. In particular, signs portraying the boundary between public and private property as a fixed line are inaccurate since the line where the mean high tide intersects the beach is an ambulatory boundary that constantly moves to correspond to changes in the beach profile and daily tide flows. In some cases, these signs may be placed on public land. In recent permit decisions for beachfront development, the Commission has imposed a special condition which forbids the placement of any sign containing language which can be interpreted as limiting access to the public beach. In addition, existing signs,

fences or other obstacles which have been illegally placed on a beach or on state tidelands need to be identified and removed, where necessary to protect public access.

a. Land Use Plan Policies

The proposed Land Use Plan contains several policies which address parking, transit and signage issues. Policy 2.16 provides for designing and siting parking and support facilities to minimize adverse impacts to sensitive environmental and visual resources. Policy 2.17 requires public beaches and parks to maintain lower-cost user fees and parking fees, and maximize hours of use to the extent feasible. Policies are included to provide transit facilities, including shuttle programs (2.24), to require sufficient off-street parking in new development (2.25), protect existing parking (2.26), and prohibit parking restrictions such as "No Parking" signs, preferential parking programs, landscaping in road easements or physical barriers unless necessary to protect public safety (2.27, 2.32). Gates, guardhouses and other barriers which restrict access are not permitted within private street easements (2.28). Any restriction of public parking is subject to a coastal development permit. Other policies provide for public parking availability on weekends and holidays to be a component of certain types of commercial or office development (2.29, 2.30). The LUP also recommends that the City complete an inventory of existing public parking and identify all unpermitted signs and physical barriers and requires that all unpermitted signs and barriers which prevent public parking near the shoreline be removed (2.31).

Based on the findings above, the Commission finds that the policies contained in the City of Malibu Land Use Plan relative to parking, signs, and transit, meet the requirements of and are in conformity with the Public Access and Recreation policies of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

In addition to the standards for providing and limitations on restricting public parking to facilitate public access to the shoreline, trails, and recreation areas contained in the Public Access Ordinance discussed elsewhere in the section, Chapter 3, Zoning Designations and Development Standards of the LCP Implementation Plan contains additional parking regulations (3.12). This chapter provides standards for adequate off-street parking in conjunction with any residential, commercial or other use or development and requires that new development provide off-street parking in order to minimize impacts to public street parking available for coastal access and recreation. Specific parking requirements and development standards are provided for all types of uses. The Ordinance also prohibits the displacement of existing parking areas serving recreational uses unless a comparable replacement area is provided. All restrictions on public parking, which would impede or restrict public access to beaches, trails, or parklands such as "no parking" signs, physical barriers, or preferential parking programs are prohibited by the Ordinance except where necessary to protect public safety.

Chapter 3 of the LCP Implementation Plan, Zoning Designations and Development Standards, contains additional standards for permitting signs in the City (3.13). A stated purpose of the Sign Ordinance is the enhancement of "public access to the shoreline, inland trails and public parks." Stated goals in the Sign Ordinance include "to protect and provide for public access to and along the shoreline, inland trails, and public parklands"; and, "to develop a uniform signage program to assist the public in locating and recognizing shoreline and trail access points." Standards to accomplish this purpose as well as protect the visual quality of scenic areas and safeguard health and public welfare are provided in the ordinance. Prohibited signs include signs which restrict public access to State tidelands, public vertical or lateral access easement areas, trails or parkland, or which purport to identify the boundary between State tidelands, and private property. Signs which are expressly permitted without the requirement for a permit in all use zones include "signs indicating the location of or directions to public access to the shoreline, trails or parklands."

Based on the findings above, the Commission finds that the policies contained in the City of Malibu LCP Implementation Plan relative to signs, parking and transit, conform with and are adequate to carry out, the policies of the adopted Land Use Plan.

7. Parklands

Several public beach parks operated by the County of Los Angeles and the Department of Parks and Recreation are located along the shoreline in Malibu. These parks include Nicholas Canyon County Beach, El Sol Beach, La Piedra, El Pescador and El Matador State Beaches (Robert H. Meyer pocket beaches), Zuma Beach County Park, Westward Beach/Point Dume State Beach, Point Dume Headlands State Preserve, Corral State Beach, Dan Blocker Memorial Beach, Malibu Bluffs State Park, Malibu Creek & Lagoon State Park, Malibu Pier/ Surfrider Beach, and Las Tunas State Beach. In addition, the City is flanked on its northern and southern boundaries by Leo Carrillo State Beach and Topanga Beach.

Many of these beach and/or bluff parks are heavily used by the public, particularly on summer weekends and holidays. Other public beaches and bluffs have been underutilized due primarily to limited public access. Among these are El Sol Beach and Dan Blocker Beach which are both owned by the Los Angeles County Department of Beaches and Harbors. The El Sol property consists of a blufftop area leading down to a large cove beach area west of the existing Robert H. Meyer pocket beaches. Dan Blocker Beach consists of a 1500-foot long blufftop and narrow sandy beach east of Latigo Point and includes an eastern unit known as Corral Beach. While the Corral unit is open to public use, the remainder is fenced. Improvements necessary to make El Sol and Dan Blocker available to the public include stairs, parking and support facilities such as restrooms.

Staff of the Commission and Coastal Conservancy have worked with County staff to facilitate opening these beaches to public use. The Conservancy has indicated to Los

Angeles County that funding is available for the development of the El Sol property. The County has indicated its desire to construct a parking lot and restroom and Dan Blocker Beach.

Another park property where public access opportunities are limited is Malibu Bluffs State Park. The California Department of Parks and Recreation acquired the 93-acre bluff property in 1979 utilizing $6.8 million of State Bonds made available by a 1976 bond measure. In 1982, the Commission approved the construction of two temporary ballfields to replace two ballfields located nearer to Malibu Lagoon in order to facilitate a lagoon restoration project (5-82-780 L.A. County). The temporary ballfields with parking and restrooms were permitted for a maximum of 5 years. In 1985 the Commission denied a proposed amendment to the permit to develop a community park on all 93 acres on the basis that the Malibu area lacked adequate regional public park and camping facilities. Subsequently, the Commission approved an amendment to the permit in 1986 which allowed the development of a 30-acre park which included the addition of an interpretive center, picnic areas, walking paths, portable bleachers and a concession stand. The amendment also revised the special condition requirement that the ballfields be removed within 5 years to permit the ballfields to remain as a temporary interim use with the added requirement that the County, which had jurisdiction over the site at the time, "seek alternative local recreation facilities, including ballfields, within the Malibu-Calabasas area."

The State Department of Parks and Recreation has indicated its desire to operate the park in the manner for which it was originally intended when purchased by the State in 1979 as a visitor and recreation serving destination for a larger segment of the public. The ballfields are largely used by local residents and an interpretive center constructed in the park is primarily used as a community center. These local uses conflict with, and limit, the use of the State Park as a regional resource and the public access and recreation policies of the Coastal Act. To date, no alternative sites have been obtained by the City although a number of potential sites have been identified either by the City or State Parks and Recreation. One potential site is a privately owned blufftop property immediately east of the park. The City is currently involved in negotiations with the property owner to allow 8 residential units on the site if the owner will also allow the relocation of the ballfields to the site as well. The Commission has indicated tentative support for this proposal, in concept, if the ballfields are largely relocated out of the park's primary viewshed and if the site plan can be revised to eliminate or mitigate some potential view impacts from the park.

Another underutilized public park site has been Point Dume State Preserve although recent improvements have enhanced public access opportunities. This 31-acre preserve includes Westward Beach, Dume Beach, Pirate's Cove, and an upland terrace/bluff preserve that provides spectacular views of the coast to the east and west. The upper blufftop portion of the park is designated a State Preserve in recognition of the resources on the site. In order to protect these resources, while also encouraging and facilitating public access to the bluff and Dume Beach, the Commission approved

Permit No. 4-97-048 in 1997 for the development of a boardwalk and trails, along with the revegetation and restoration of approximately two acres. These improvements allow public use to be directed along a boardwalk and established trails rather than through a haphazard web of unplanned dirt paths. To further facilitate public access to the blufftop, the Commission approved Permit No. 4-00-126 in 2000, in a negotiated settlement agreement with the City to resolve an enforcement action, which resulted in the construction of 10 public parking spaces, a temporary drop-off space and a shuttle bus stop along Cliffside Drive which borders the Preserve.

a. Land Use Plan Policies

The Land Use Plan contains policies which provide for the protection of existing access to regional parks along the City's shoreline and for the improvement of access where needed. Policy 2.76 provides for coordinating with and supporting efforts by Los Angeles County Department of Beaches and Harbors to open and provide increased public access to El Sol and Dan Blocker Beaches. Policy 2.78 states that if an agreement is reached between the Department of State Parks and Recreation and the Crummer Trust which provides for the permanent relocation of the ballfields out of prime viewshed of Malibu Bluffs State Park onto the adjacent Crummer Trust property then a maximum of eight residential units may be permitted on the remainder of the (Crummer Trust) site. In addition, the LUP provides for the City's support and coordination with the Department of Parks and Recreation in protecting and improving access to Point Dume State Preserve (2.79). Further, the Beach and Blufftop Accessway Standards also contained in the LUP also provide for the development of an accessway at El Sol; improved access to and along the blufftop at Point Dume along with the provision and protection of public parking; the improvement of vertical access, public parking and restroom facilities at Dan Blocker Beach; and enhancement of public blufftop trails and viewpoints and passive recreation at Malibu Bluffs State Park.

Based on the findings above, the Commission finds that policies contained in the City of Malibu LCP Land Use Plan relative to the protection and provision of public parks and beaches meet the requirements of and are in conformity with the Public Access and Recreation policies of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

The policies provided in the Public Access Ordinance and the Parking Ordinance discussed above carry out the policies to the Land Use Plan concerning the protection and enhancement of public parks and beaches in the City to a large extent. Provisions for the completion of a Development Agreement are included in Chapter 13.28 of the Coastal Development Permit Ordinance discussed elsewhere in the findings.

Based on the findings above, the Commission finds that policies contained in the LCP Implementation Plan for the City of Malibu relative to the protection and enhance of

public beaches and parks in the City conform with and are adequate to carry out the Public Access and Recreation policies of Chapter 3 of the Coastal Act.

8. Visitor and Recreation Serving Uses

As stated previously, the beaches of Malibu are world-famous tourist destinations for visitors from nearby areas, other areas within California, the nation and many foreign countries. Overall, a wide variety of recreational opportunities exist within the City and the Santa Monica Mountains such as swimming, surfing, diving, boating, hiking and equestrian use. Historically, however, the provision of adequate visitor-serving facilities has been a controversial issue in Malibu particularly relative to the provision of overnight accommodations. Visitor-serving facilities also include various commercial enterprises such as restaurants, surfing and diving shops, visitor-centers, piers, parks and other uses.

Regarding overnight accommodations, there are currently six existing motels or hotels within the City containing a total of 151 rooms. In addition, the Adamson Hotel, which was approved by the Commission prior to the City's incorporation with approximately 300 rooms, has been approved by the City with a total of 146 rooms. This hotel is not yet under construction.

The 1986 certified LUP for Malibu and the Santa Monica Mountains designated approximately 180 acres as visitor-serving recreation or commercial including approximately 51 acres in the Civic Center area which contains several large undeveloped parcels. (The 1986 LUP recommended that a Specific Plan be prepared for the Civic Center as does the current proposed LUP.) The City's General Plan designates approximately 81 acres for visitor-serving uses, including the approximately 30-acre Adamson Hotel site. The City's General Plan does not designate any property in the Civic Center as visitor serving aside from the Adamson Hotel site.

a. Land Use Plan Policies

Permitted uses and land use designations are contained in the New Development Chapter of the draft LUP and are discussed in greater detail in that section.

The Access and Recreation Chapter of the LUP does contain policies which address the provision of visitor-serving facilities, however. Policies 2.33 and 2.37 give priority to the development of visitor-serving commercial recreational facilities which enhance public opportunities for coastal recreation over private residential or general commercial development. Policy 2.34 and 2.36 protect existing, lower cost visitor serving facilities and encourages the development of new lower cost facilities. Policy 2.35 requires that new development of overnight visitor-serving accommodations include a component of lower cost facilities or provide mitigation in the form of an in-lieu fee to help subsidize the construction of lower cost facilities.

The amount of the required in lieu fee was based on a study conducted by a consultant for the City of Santa Monica which determined that a mitigation fee of $8,000 (per unit) would be required to provide the subsidy necessary to ensure construction of new low cost overnight accommodations in Santa Monica. The methodology used to determine the subsidy amount is explained in the December 12, 1989, Memorandum to Mayor and City Council from City Staff, entitled: Recommendation to Adopt a Low Coastal Lodging Fee for the City of Santa Monica. The approach was to "determine the amount of assistance required by a developer of new economy rooms so that a 10% return on equity investment could be achieved." The City's study concluded that a mitigation fee of $8,000 per unit was necessary, and that the fee should be adjusted for inflation. An ordinance was subsequently adopted by the City of Santa Monica in 1990 (Ordinance Number 1516) that imposed a fee in the amount of $8,000 per unit, as the appropriate subsidy to provide an incentive for construction of new low cost lodgings. It is expected that costs for developing low cost accommodations in Malibu will be similar to Santa Monica. Therefore, the in lieu fee recommended in the LIP is based on the fee adopted by Santa Monica in 1990, adjusted for inflation through January 2000. In connection with a project in the City of Santa Barbara, an analysis of the subsidy required to develop economy lodging in Santa Barbara was conducted by PKF Consulting in 2001. In a letter to Douglas E. Fell, dated June 7, 2001, from Bruce Baltin, PKF Consulting, that firm concluded that the required subsidy would be $10,229 per room. This is very close to the $10,419 per unit fee required in the LCP and further substantiates that the amount is appropriate.

Based on the findings above, the Commission finds that the policies contained in the adopted Land Use Plan for the City of Malibu relative to the provision and protection of visitor-serving commercial and recreational uses meet the requirements of and are in conformity with the Public Access and Recreation policies of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

Visitor-serving uses are provided for in Chapter 3, relative to Zoning Designations. In particular, visitor-serving uses are allowed on several undeveloped parcels in the Civic Center. In addition the Public Access and Recreation Ordinance provides for the requirement to provide lower cost overnight accommodations in any approval of luxury overnight accommodations (12.11). This LIP ordinance policy requires that lower cost facilities be provided on-site, off-site, or through the payment of an in-lieu fee to the City for deposit into a fund to subsidize the construction of lower cost facilities in the Malibu-Santa Monica Mountains Coastal Zone area. The ordinance provides the amount of the fee as discussed above (under section a.) that is required unless and until the City completes a fee study to determine an alternative fee which provides the necessary mitigation.

Based on the findings above, the Commission finds that the Public Access and Recreation Policies contained in the City of Malibu LCP Implementation Plan conforms

with, and is adequate to carry out, the policies and provisions of the adopted Land Use Plan relative to Public Access and Recreation.

D. Marine and Land Resources

1. Coastal Act Provisions

One of the chief objectives of the Coastal Act is the preservation, protection, and enhancement of coastal resources, including land and marine habitats, and water quality. The rare and most ecologically important habitats are protected from development. Section 30240 requires the protection of environmentally sensitive habitat areas (ESHA) against any significant disruption of habitat values. No development, with the exception of uses dependent on the resources, is allowed within any ESHA. This policy further requires that development adjacent to ESHA is sited and designed to prevent impacts that would significantly degrade ESHA and to be compatible with the continuance of the habitat areas. Finally, development adjacent to parks and recreation areas must be sited and designed to prevent impacts.

In addition to protection as ESHA, streams and associated riparian habitat are also protected in order to maintain the biological productivity and quality of coastal waters. Section 30231 requires that natural vegetation buffer areas that protect riparian habitats be maintained, and that the alteration of natural streams be minimized. Section 30236 limits channelizations, dams, or other substantial alterations of rivers and streams to only three purposes: necessary water supply; protection of existing structures where there is no feasible alternative; or improvement of fish and wildlife habitat.

Marine resources are protected to sustain the biological productivity of coastal waters and to maintain healthy populations of all species of marine organisms. Section 30230 requires that marine resources be maintained, enhanced, and where feasible restored. Uses of the marine environment must provide for the biological productivity of coastal waters and that will maintain healthy populations of marine organisms. Section 30233 provides that the diking, filling, or dredging of open coastal waters, wetlands, or estuaries may only be permitted where there is no less environmentally damaging alternative and restricted to a limited number of allowable uses.

Finally, the Coastal Act requires that the biological productivity and quality of coastal waters be protected. Section 30231 requires the use of means, including managing waste water discharges, controlling runoff, protecting groundwater and surface water, encouraging waste water reclamation, and protecting streams, in order to maintain and enhance water quality.

2. Coastal Act Policies

Section **30107.5** of the Coastal Act states that:

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Section **30230** of the Coastal Act states that:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section **30231** of the Coastal Act states that:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section **30233** of the Coastal Act states that:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where such improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Section **30236** of the Coastal Act states that:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section **30240** of the Coastal Act states that:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Section **30241** of the Coastal Act states that:

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

> (a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
>
> (b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.

(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.

(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.

(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.

(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.

Section **30241.5** of the Coastal Act states that:

(a) If the viability of existing agricultural uses is an issue pursuant to subdivision (b) of Section 30241 as to any local coastal program or amendment to any certified local coastal program submitted for review and approval under this division, the determination of "viability" shall include, but not be limited to, consideration of an economic feasibility evaluation containing at least both of the following elements:

(1) An analysis of the gross revenue from the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

(2) An analysis of the operational expenses, excluding the cost of land, associated with the production of the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

For purposes of this subdivision, "area" means a geographic area of sufficient size to provide an accurate evaluation of the economic feasibility of agricultural uses for those lands included in the local coastal program or in the proposed amendment to a certified local coastal program.

(b) The economic feasibility evaluation required by subdivision (a) shall be submitted to the commission, by the local government, as part of its submittal of a local coastal program or an amendment to any local coastal program. If the local government determines that it does not have the staff with the necessary expertise to conduct the economic feasibility evaluation, the evaluation may be conducted under agreement with the local government by a consultant selected jointly by local government and the executive director of the commission.

Section **30242** of the Coastal Act states that:

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (l) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

3. Introduction

The Santa Monica Mountains region, including the City of Malibu, is a unique habitat area. On a global scale, the area is part of the Mediterranean Scrub biome. This biome type is found in only five areas worldwide: around the Mediterranean Sea, Chile, South Africa, Australia, and Southern California. All of these areas occur on the west coast of the respective continents where there are cold ocean currents offshore. The Mediterranean climate includes wet winters and dry summers with precipitation ranging from 15 to 40 inches per year. Temperatures are moderated by the maritime influence and fog associated with the cold ocean currents. Worldwide, this biome occupies a small area and a very small percentage of the historical extent remains undisturbed.

The Santa Monica Mountains are part of the Transverse Ranges, the only mountain range in California that is oriented in an east to west direction. The Transverse Ranges extend from the Santa Barbara Coast to the Mojave Desert, creating a natural barrier between Central and Southern California. There are several habitat types and individual plant species within the City that are considered sensitive. The Department of Fish and Game has identified habitats that are considered sensitive because of their scarcity and because they support a number of endangered, threatened, and rare plants, as well as sensitive bird and animal species. These vegetation communities found within the City include coastal sage scrub, walnut woodland, southern willow scrub, southern cottonwood-willow riparian forest, sycamore-alder woodland, oak riparian forest, salt marsh, and freshwater marsh. Within these habitat areas are several plant species that are considered endangered, threatened, rare, or of special concern under state or federal law or due to other compelling evidence of rarity, for example, by designation of the California Native Plant Society. Such plants include Santa Susana tarplant, Coulter's saltbush, Blochman's dudleya, Santa Monica Mountains dudleya, and Plummer's mariposa lily. The Santa Monica Mountains, including the City, still include large areas of intact habitat, an extraordinary fact given the dense urban development that surrounds the area.

4. Environmentally Sensitive Habitat Designation

The Coastal Act provides a definition of "environmentally sensitive area" as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Section 30107.5).

There are three important elements to the definition of ESHA. First, a geographic area can be designated ESHA either because of the presence of individual species of plants or animals or because of the presence of a particular habitat. Second, in order for an area to be designated as ESHA, the species or habitat must be either rare or it must be especially valuable. Finally, the area must be easily disturbed or degraded by human activities.

The first test of ESHA is whether a habitat or species is rare. Rarity can take several forms, each of which is important. Within the City of Malibu, rare species and habitats generally fall within one of two common categories. Most rare species or habitats within the City are globally rare, but locally abundant. They have suffered severe historical declines in overall abundance and currently are reduced to a small fraction of their original range, but where present may occur in relatively large numbers or cover large local areas. This is probably the most common form of rarity for both species and habitats in California and is characteristic of coastal sage scrub, for example. Some other habitats are geographically widespread, but occur everywhere in low abundance. California's native perennial grasslands fall within this category.

A second test for ESHA is whether a habitat or species is especially valuable. Areas may be valuable because of their "special nature," such as being an unusually pristine example of a habitat type, containing an unusual mix of species, supporting species at the edge of their range, or containing species with extreme variation. For example, reproducing populations of valley oaks are not only increasingly rare, but their southernmost occurrence is in the Santa Monica Mountains. Generally, however, habitats or species are considered valuable because of their special "role in the ecosystem." For example, some areas within the City of Malibu may meet this test because they provide habitat for endangered species, protect water quality, provide essential corridors linking one sensitive habitat to another, or provide critical ecological linkages such as the provision of pollinators or crucial trophic connections. Of course, all species play a role in their ecosystem that is arguably "special." However, the Coastal Act requires that this role be "especially valuable." Within the City of Malibu, this test is met for those areas that are integral parts of the Santa Monica Mountains Mediterranean ecosystem because of the demonstrably rare and extraordinarily special nature of that ecosystem as detailed below. Other areas within the City of Malibu may meet this test for other reasons, for example for especially valuable roles in marine systems.

Finally, ESHAs are those areas that could be easily disturbed or degraded by human activities and developments. Within the City of Malibu, as in most of urban southern California, all natural habitats are in grave danger of direct loss or significant degradation as a result of many factors related to anthropogenic changes.

a. Geography of the City of Malibu

The City of Malibu averages only one mile of inland extent but 27 miles along the coast, forming a long and significant connecting link between the coast and the large, undisturbed habitat areas of the rest of the Santa Monica Mountains. The city itself contains substantial areas of undeveloped native habitat. Most development has occurred within the general vicinity of Point Dume and in those areas closest to the ocean, including several canyon bottoms (e.g., Las Flores Canyon, Malibu Creek, Ramirez Canyon and Trancas Canyon). In general, native habitats are more intact as one moves away from the shore.

The most widespread vegetation type within the City of Malibu is coastal sage scrub. However, as one moves inland, there is a rapid increase in elevation and a concomitant transition from coastal sage scrub to chaparral as the primary vegetation type. Ecological transition areas such as this are known for their high biodiversity and abundance of opportunistic species that move between habitats.

An extraordinary feature of this section of coast is the large number of watersheds (Exhibit 1). Over 30 streams discharge into the ocean within the city limits. The riparian corridors along many of these streams connect the habitats within the city to the large inland watersheds, which is of particular significance to endangered steelhead trout. Although there has been substantial degradation of many of the coastal reaches of these streams, the quality of the habitat improves rapidly as one moves inland and soon approaches a relatively undisturbed environment consisting of steep canyons containing riparian oak-sycamore bottoms, with coastal sage scrub and chaparral ascending the canyon walls. These streams are somewhat unique along the California coast because of their topographic setting. The Santa Monica Mountains are a "transverse" range that is oriented in an east-west direction. As a result, the south-facing riparian habitats have more variable sun exposure than the east-west riparian corridors of other sections of the coast. This creates a more diverse moisture environment and contributes to the higher biodiversity of the region.

b. Ecosystem Context of the Habitats of the City of Malibu

The Santa Monica Mountains, including the City of Malibu, comprise the largest, most pristine, and ecologically complex example of a Mediterranean ecosystem in coastal southern California. California's coastal sage scrub, chaparral, oak woodlands, and

associated riparian areas have analogues in just a few areas of the world with similar climate. Mediterranean ecosystems with their wet winters and warm dry summers are only found in five localities (the Mediterranean coast, California, Chile, South Africa, and south and southwest Australia). Throughout the world, this ecosystem with its specially adapted vegetation and wildlife has suffered severe loss and degradation from human development. Worldwide, only 18 percent of the Mediterranean community type remains undisturbed[1]. However, within the Santa Monica Mountains, this ecosystem is remarkably intact despite the fact that it is closely surrounded by some 17 million people. For example, the 150,000 acres of the Santa Monica Mountains National Recreation Area, which encompasses most of the Santa Monica Mountains including the City of Malibu, was estimated to be 90 percent free of development in 2000[2]. Therefore, this relatively pristine area is both large and mostly unfragmented, which fulfills a fundamental tenet of conservation biology[3]. The need for large contiguous areas of natural habitat in order to maintain critical ecological processes has been emphasized by many conservation biologists[4].

In addition to being a large single expanse of land, the Santa Monica Mountains ecosystem is still connected, albeit somewhat tenuously, to adjacent inland ecosystems[5]. Connectivity among habitats within an ecosystem and connectivity among ecosystems is very important for the preservation of species and ecosystem integrity. In a recent statewide report, the California Resources Agency[6] identified wildlife corridors and habitat connectivity as the top conservation priority. In a letter to governor Gray Davis, sixty leading environmental scientists have endorsed the

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[1] National Park Service. 2000. Draft general management plan & environmental impact statement. Santa Monica Mountains National Recreation Area – California.

[2] Ibid.

[3] Harris, L. D. 1988. Edge effects and conservation of biotic diversity. Conserv. Biol. 330-332. Soule, M. E, D. T. Bolger, A. C. Alberts, J. Wright, M. Sorice and S. Hill. 1988. Reconstructed dynamics of rapid extinctions of chaparral-requiring birds in urban habitat islands. Conserv. Biol. 2: 75-92. Yahner, R. H. 1988. Changes in wildlife communities near edges. Conserv. Biol. 2:333-339. Murphy, D. D. 1989. Conservation and confusion: Wrong species, wrong scale, wrong conclusions. Conservation Biol. 3:82-84.

[4] Crooks, K. 2000. Mammalian carnivores as target species for conservation in Southern California. p. 105-112 *in*: Keeley, J. E., M. Baer-Keeley and C. J. Fotheringham (eds), 2nd Interface Between Ecology and Land Development in California, U.S. Geological Survey Open-File Report 00-62. Sauvajot, R. M., E. C. York, T. K. Fuller, H. Sharon Kim, D. A. Kamradt and R. K. Wayne. 2000. Distribution and status of carnivores in the Santa Monica Mountains, California: Preliminary results from radio telemetry and remote camera surveys. p 113-123 *in*: Keeley, J. E., M. Baer-Keeley and C. J. Fotheringham (eds), 2nd Interface Between Ecology and Land Development in California, U.S. Geological Survey Open-File Report 00-62. Beier, P. and R. F. Noss. 1998. Do habitat corridors provide connectivity? Conserv. Biol. 12:1241-1252. Beier, P. 1996. Metapopulation models, tenacious tracking and cougar conservation. *In*: Metapopulations and Wildlife Conservation, ed. D. R. McCullough. Island Press, Covelo, California, 429p.

[5] The SMM area is linked to larger natural inland areas to the north through two narrow corridors: 1) the Conejo Grade connection at the west end of the Mountains and 2) the Simi Hills connection in the central region of the SMM (from Malibu Creek State Park to the Santa Susanna Mountains).

[6] California Resources Agency. 2001. Missing Linkages: Restoring Connectivity to the California Landscape. California Wilderness Coalition, Calif. Dept of Parks & Recreation, USGS, San Diego Zoo and The Nature Conservancy. Available at: http://www.calwild.org/pubs/reports/linkages/index.htm

conclusions of that report[7]. The chief of natural resources at the California Department of Parks and Recreation has identified the Santa Monica Mountains as an area where maintaining connectivity is particularly important[8].

The species most directly affected by large scale connectivity are those that require large areas or a variety of habitats, e.g., gray fox, cougar, bobcat, badger, steelhead trout, and mule deer[9]. Large terrestrial predators are particularly good indicators of habitat connectivity and of the general health of the ecosystem[10]. Recent studies show that the mountain lion, or cougar, is the most sensitive indicator species of habitat fragmentation, followed by the spotted skunk and the bobcat[11]. Sightings of cougars in the City of Malibu and surrounding areas[12] demonstrate their continued presence. Like the "canary in the mineshaft," an indicator species like this is good evidence that habitat connectivity and large scale ecological function remains in the Santa Monica Mountains ecosystem.

The habitat integrity and connectivity that is still evident within the Santa Monica Mountains and the City of Malibu is extremely important to maintain, because both theory and experiments over 75 years in ecology confirm that large spatially connected habitats tend to be more stable and have less frequent extinctions than habitats without extended spatial structure[13]. Beyond simply destabilizing the ecosystem, fragmentation

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[7] Letters Received.

[8] Schoch, D. 2001. Survey lists 300 pathways as vital to state wildlife. Los Angeles Times. August 7, 2001.

[9] Martin, G. 2001. Linking habitat areas called vital for survival of state's wildlife Scientists map main migration corridors. San Francisco Chronicle, August 7, 2001.

[10] Noss, R. F., H. B. Quigley, M. G. Hornocker, T. Merrill and P. C. Paquet. 1996. Conservation biology and carnivore conservation in the Rocky Mountains. Conerv. Biol. 10: 949-963. Noss, R. F. 1995. Maintaining ecological integrity in representative reserve networks. World Wildlife Fund Canada.

[11] Sauvajot, R. M., E. C. York, T. K. Fuller, H. Sharon Kim, D. A. Kamradt and R. K. Wayne. 2000. Distribution and status of carnivores in the Santa Monica Mountains, California: Preliminary results from radio telemetry and remote camera surveys. p 113-123 in: Keeley, J. E., M. Baer-Keeley and C. J. Fotheringham (eds), 2nd Interface Between Ecology and Land Development in California, U.S. Geological Survey Open-File Report 00-62. Beier, P. 1996. Metapopulation models, tenacious tracking and cougar conservation. In: Metapopulations and Wildlife Conservation, ed. D. R. McCullough. Island Press, Covelo, California, 429p.

[12] Recent sightings of mountain lions in the Malibu area: Temescal Canyon (pers. com., Peter Brown, Facilities Manager, Calvary Church), Topanga Canyon (pers. com., Marti Witter, NPS), Encinal and Trancas Canyons (pers. com., Pat Healy), Stump Ranch Research Center (pers. com., Dr. Robert Wayne, Dept. of Biology, UCLA). In May of 2002, the NPS *photographed* a mountain lion at a trip camera on the Back Bone Trail near Castro Crest – Seth Riley, Eric York and Dr. Ray Sauvajot, National Park Service, SMMNRA.

[13] Gause, G. F. 1934. The struggle for existence. Balitmore, William and Wlikins 163 p. (also reprinted by Hafner, N.Y. 1964). Gause, G. F., N. P. Smaragdova and A. A. Witt. 1936. Further studies of interaction between predators and their prey. J. Anim. Ecol. 5:1-18. Huffaker, C. B. 1958. Experimental studies on predation: dispersion factors and predator-prey oscillations. Hilgardia 27:343-383. Luckinbill, L. S. 1973. Coexistence in laboratory populations of *Paramecium aurelia* and its predator *Didinium nasutum*. Ecology 54:1320-1327. Allen, J. C., C. C. Brewster and D. H. Slone. 2001. Spatially explicit ecological models: A spatial convolution approach. Chaos, Solitons and Fractals. 12:333-347.

and disturbance can even cause unexpected and irreversible changes to new and completely different kinds of ecosystems (habitat conversion)[14].

As a result of the pristine nature of large areas of the Santa Monica Mountains and the existence of large, unfragmented and interconnected blocks of habitat, this ecosystem continues to support an extremely diverse flora and fauna. The observed diversity is probably a function of the diversity of physical habitats. The Santa Monica Mountains have the greatest geological diversity of all major mountain ranges within the transverse range province. According to the National Park Service, the Santa Monica Mountains contain 40 separate watersheds and over 170 major streams with 49 coastal outlets[15]. The south-facing riparian habitats have a variable sun exposure that creates an unusually diverse moisture environment. The many different physical habitats support at least 17 native vegetation types[16] including the following habitats considered sensitive by the California Department of Fish and Game: native perennial grassland, coastal sage scrub, red-shank chaparral, valley oak woodland, walnut woodland, southern willow scrub, southern cottonwood-willow riparian forest, sycamore-alder woodland, oak riparian forest, coastal salt marsh, and freshwater marsh. Over 400 species of birds, 35 species of reptiles and amphibians, and more than 40 species of mammals have been documented in this diverse ecosystem. More than 80 sensitive species of plants and animals (listed, proposed for listing, or species of concern) are known to occur or have the potential to occur within the Santa Monica Mountains Mediterranean ecosystem.

The Santa Monica Mountains are also important in a larger regional context. Several recent studies have concluded that the area of southern California that includes the Santa Monica Mountains is among the most sensitive in the world in terms of the number of rare endemic species, endangered species and habitat loss. These studies have designated the area to be a local hot-spot of endangerment in need of special protection[17].

Therefore, the Commission finds that the Santa Monica Mountains ecosystem is itself rare and especially valuable because of its special nature as the largest, most pristine, physically complex, and biologically diverse example of a Mediterranean ecosystem in coastal southern California. The Commission further finds that because of the rare and special nature of the Santa Monica Mountains ecosystem, the ecosystem roles of

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[14] Scheffer, M., S. Carpenter, J. A. Foley, C. Folke and B. Walker. 2001. Catastrophic shifts in ecosystems. Nature 413:591-596.

[15] NPS. 2000. op.cit.

[16] From the NPS report (2000 op. cit.) that is based on the older Holland system of subjective classification. The data-driven system of Sawyer and Keeler-Wolf results in a much larger number of distinct "alliances" or vegetation types.

[17] Myers, N. 1990. The biodiversity challenge: Expanded hot-spots analysis. Environmentalist 10:243-256. Myers, N., R. A. Mittermeier, C. G. Mittermeier, G. A. B. da Fonseca and J. A. Kent. 2000. Biodiversity hot-spots for conservation priorities. Nature 403:853-858. Dobson, A. P., J. P. Rodriguez, W. M. Roberts and D. S. Wilcove. 1997. Geographic distribution of endangered species in the United States. Science 275:550-553.

substantially intact areas of the constituent plant communities discussed below are "especially valuable" under the Coastal Act.

c. Habitats within the City of Malibu

The most recent vegetation map that is available for the Santa Monica Mountains, including the City of Malibu, is the map that was produced for the National Park Service in the mid-1990s using 1993 satellite imagery supplemented with color and color infrared aerial imagery from 1984, 1988, and 1994 and field review[18]. The minimum mapping unit was 5 acres. For that map, the vegetation was mapped in very broad categories, generally following a vegetation classification scheme developed by Holland[19]. Because of the mapping methods used the degree of plant community complexity in the landscape is not represented. For example, the various types of "ceanothus chaparral" that have been documented were lumped under one vegetation type referred to as "northern mixed chaparral." Out of necessity, staff has used the designations of vegetation types in the National Park Service maps, recognizing that some vegetation types were mapped at a generic level. Staff also notes that the more recent system of classification developed by the California Native Plant Society[20] would identify additional plant communities. Dr. Todd Keeler-Wolf of the California Department of Fish and Game is currently conducting a vegetation survey of the Santa Monica Mountains, including Malibu. His preliminary list of vegetation types within the City of Malibu based on three reconnaissance surveys includes 40 native vegetation types or "alliances," 14 of which are rare throughout the state or considered to be relatively restricted to the Santa Monica Mountains (Exhibit 2).

The National Park Service map was used to characterize broadly the types of plant communities present, but were not used to construct the maps of Environmentally Sensitive Habitat Areas. That process is described below. The main generic plant communities present in the City of Malibu[21] are: coastal sage scrub, chaparral, riparian woodland, coast live oak woodland, grasslands, and coastal strand coastal dunes.

Although all of these habitats are present in the City of Malibu according to the NPS vegetation maps[22], coast live oak woodland only occurs only in a small area at the west end of the city, if it occurs at all. Of the remaining terrestrial upland habitats, coastal

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[18] Franklin, J. 1997. Forest Service Southern California Mapping Project, Santa Monica Mountains National Recreation Area, Task 11 Description and Results, Final Report. June 13, 1997, Dept. of Geography, San Diego State University, USFS Contract No. 53-91S8-3-TM45.

[19] Holland R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Dept. of Fish and Game, Natural Heritage Division, Sacramento, CA. 95814.

[20] Sawyer, J. O. and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, CA

[21] National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000. (Fig. 11 in this document.)

[22] Ibid

sage scrub is the largest with about 34% of the land area. The area classified as "northern mixed chaparral" comprises about 10% of the land area.

i. Riparian Woodland

Within the City of Malibu, over 30 "blueline" streams connect inland areas with the coast, and there are many smaller drainages as well. Riparian woodlands occur along both perennial and intermittent streams in nutrient-rich soils. Partly because of its multi-layered vegetation, the riparian community contains the greatest overall biodiversity of all the plant communities in the area[23]. Four types of riparian communities are discernable in the Malibu area: walnut riparian areas, mulefat-dominated riparian areas, willow riparian areas and sycamore riparian woodlands. Of these, the sycamore riparian woodland is the most diverse riparian community in the area. In these habitats, the dominant plant species include arroyo willow, California black walnut, sycamore, coast live oak, Mexican elderberry, California bay laurel, and mule fat. Wildlife species that have been observed in this community include least Bell's vireo (a State and federally listed species), American goldfinches, black phoebes, warbling vireos, bank swallows (State listed threatened species), song sparrows, belted kingfishers, raccoons, and California and Pacific tree frogs.

Riparian communities are the most species-rich to be found in the Malibu area. Because of their multi-layered vegetation, available water supply, vegetative cover and adjacency to shrubland habitats, they are attractive to many native wildlife species, and provide essential functions in their lifecycles[24]. During the long dry summers in this Mediterranean climate, these communities are an essential refuge and oasis for much of the areas' wildlife.

Riparian habitats and their associated streams form a central connecting link between all the habitats in the Malibu area. These habitats connect all of the biological communities from the highest elevation chaparral to the sea with a unidirectional flowing water system, one function of which is to carry nutrients through the ecosystem to the benefit of many different species along the way.

The streams themselves provide refuge for four sensitive species within the City of Malibu: the coast range newt, the Pacific pond turtle, the tidewater goby and the steelhead trout. The coast range newt and the Pacific pond turtle are California Species of Special Concern and are proposed for federal listing[25], and both the tidewater goby and steelhead trout are federally endangered. The health of the streams is dependent on the ecological functions provided by the associated riparian woodlands. These

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[23] Ibid.

[24] Walter, Hartmut. Bird use of Mediterranean habitats in the Santa Monica Mountains, Coastal Commission Workshop on the Significance of Native Habitats in the Santa Monica Mountains. CCC Hearing, June 13, 2002, Queen Mary Hotel.

[25] USFWS. 1989. Endangered and threatened wildlife and plants; animal notice of review. Fed. Reg. 54:554-579. USFWS. 1993. Endangered and threatened wildlife and plants; notice of 1-year petition finding on the western pond turtle. Fed. Reg. 58:42717-42718.

functions include the provision of large woody debris for habitat, shading that controls water temperature, and input of leaves that provide the foundation of the stream-based trophic structure.

The importance of the connectivity between riparian areas and adjacent habitats is illustrated by the Pacific pond turtle and the coast range newt, both of which are sensitive and both of which require this connectivity for their survival. The life history of the Pacific pond turtle demonstrates the importance of riparian areas and their associated watersheds for this species. These turtles require the stream habitat during the wet season. However, recent radio tracking work[26] has found that although the Pacific pond turtle spends the wet season in streams, it also requires upland habitat for refuge during the dry season. Thus, in coastal southern California, the Pacific pond turtle requires both streams and intact adjacent upland habitats such as coastal sage scrub, woodlands or chaparral as part of their normal life cycle. The turtles spend about four months of the year in upland refuge sites located an average distance of 50 m (but up to 280 m) from the edge of the creek bed. Similarly, nesting sites where the females lay eggs are also located in upland habitats an average of 30 m (but up to 170 m) from the creek. Occasionally, these turtles move up to 2 miles across upland habitat[27]. Like many species, the pond turtle requires both stream habitats and the upland habitats of the watershed to complete its normal annual cycle of behavior. Similarly, the coast range newt has been observed to travel hundreds of meters into upland habitat and spend about ten months of the year far from the riparian streambed[28]. They return to the stream to breed in the wet season, and they are therefore another species that requires both riparian habitat and adjacent uplands for their survival.

Riparian habitats in California have suffered serious losses and such habitats in southern California are currently very rare and seriously threatened. In 1989, Faber estimated that 95-97% of riparian habitat in southern California was already lost[29]. Writing at the same time as Faber, Bowler asserted that, *"[t]here is no question that riparian habitat in southern California is endangered."*[30] In the intervening 13 years, there have been continuing losses of the small amount of riparian woodlands that remain. Today these habitats are, along with native grasslands and wetlands, among the most threatened in California.

In addition to direct habitat loss, streams and riparian areas have been degraded by the effects of development. For example, the coast range newt, a California Species of

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[26] Rathbun, G.B., N.J. Scott and T.G. Murphy. 2002. Terrestrial habitat use by Pacific pond turtle in a Mediterranean climate. Southwestern Naturalist. (*in Press*).

[27] Testimony by R. Dagit, Resource Conservation District of the Santa Monica Mountains at the CCC Habitat Workshop on June 13, 2002.

[28] Dr, Lee Kats, Pepperdine University, personal communication to Dr J. Allen, CCC.

[29] Faber, P.A., E, Keller, A. Sands and B.M. Massey. 1989. The ecology of riparian habitats of the southern California coastal region: a community profile. U.S. Fish and Wildlife Service Biological Report 85(7.27) 152pp.

[30] Bowler, P.A. 1989. Riparian woodland: An endangered habitat in southern California. Pp 80-97 *in* Schoenherr, A.A. (ed.) Endangered plant communities of southern California. Botanists Special Publication No. 3.

Special Concern has suffered a variety of impacts from human-related disturbances[31]. Human-caused increased fire frequency has resulted in increased sedimentation rates, which exacerbates the cannibalistic predation of adult newts on the larval stages.[32] In addition impacts from non-native species of crayfish and mosquitofish have also been documented. When these non-native predators are introduced, native prey organisms are exposed to new mortality pressures for which they are not adapted. Coast range newts that breed in the Santa Monica Mountain streams do not appear to have adaptations that permit co-occurrence with introduced mosquitofish and crayfish[33]. These introduced predators have eliminated the newts from streams where they previously occurred by both direct predation and suppression of breeding

Therefore, because of the essential role that riparian plant communities play in maintaining the biodiversity of the Santa Monica Mountains, including the City of Malibu, because of the historical losses and current rarity of these habitats in southern California, and because of their extreme sensitivity to disturbance, the Commission finds that native riparian habitats in the City of Malibu are ESHA under the Coastal Act.

ii. Coastal Sage Scrub and Chaparral

Coastal sage scrub and chaparral are often lumped together as "shrublands" because of their roughly similar appearance and occurrence in similar and often adjacent physical habitats. In earlier literature, these vegetation associations were often called soft chaparral and hard chaparral, respectively. "Soft" and "hard" refers to differences in their foliage associated with different adaptations to summer drought. Coastal sage scrub is dominated by soft-leaved, generally low-growing aromatic shrubs that die back and drop their leaves in response to drought. Chaparral is dominated by taller, deeper-rooted evergreen shrubs with hard, waxy leaves that minimize water loss during drought.

The two vegetation types are often found interspersed with each other. Under some circumstances, coastal sage scrub may even be successional to chaparral, meaning that after disturbance, a site may first be covered by coastal sage scrub, which is then replaced with chaparral over long periods of time.[34] Within the City of Malibu, coastal sage scrub is the predominant vegetation type (Exhibit 3 and Exhibit 4). Only about 10% of the area within the city limits is chaparral. However, the chaparral within the city is an integral part of the very large blocks of chaparral of various types continuing north of the city boundary in the Santa Monica Mountains.

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[31] Gamradt, S.C., L.B. Kats and C.B. Anzalone. 1997. Aggression by non-native crayfish deters breeding in California newts. Conservation Biology 11(3):793-796.

[32] Kerby, L.J., and L.B. Kats. 1998. Modified interactions between salamander life stages caused by wildfire-induced sedimentation. Ecology 79(2):740-745.

[33] Gamradt, S.C. and L.B. Kats. 1996. Effect of introduced crayfish and mosquitofish on California newts. Conservation Biology 10(4):1155-1162.

[34] Cooper, W.S. 1922. The broad-sclerophyll vegetation of California. Carnegie Institution of Washington Publication 319. 124 pp.

Thus, the portion of the Santa Monica Mountains that encompasses the City of Malibu is a transition zone between habitat types along a steep elevation gradient. In this zone, the existing mosaic of coastal sage scrub and chaparral is the result of a dynamic process that is a function of fire history, recent climatic conditions, soil differences, slope, aspect and moisture regime, and the two habitats should not be thought of as completely separate and unrelated entities but as different phases of the same process[35]. The spatial pattern of these vegetation stands at any given time thus depends on both local site conditions and on history (e.g., fire), and is influenced by both natural and human factors.

In low elevation areas with high fire frequency like Malibu, chaparral and coastal sage scrub may be in a state of flux, leading one researcher to describe the mix as a "coastal sage-chaparral subclimax."[36] Several other researchers have noted the replacement of chaparral by coastal sage scrub, or coastal sage scrub by chaparral depending on fire history.[37] In the transitional setting in Malibu the occasional patches of chaparral intermingled with coastal sage scrub add significantly to the biodiversity of this large-scale ecotone enriching the seasonal plant resource base and providing additional habitat variability and seasonality for the many species that inhabit the area. Increased biodiversity is typical of ecotones, and in this setting the patches of chaparral intermingled with coastal sage scrub may significantly contribute to the value of the coastal sage scrub habitat and to the enrichment of local biodiversity.

iii. Relationships Among Coastal Sage Scrub, Chaparral and Riparian Communities

Although the constituent communities of the Santa Monica Mountains Mediterranean ecosystem can be defined and distinguished based on species composition, growth habits, and the physical habitats they characteristically occupy, they are not independent entities ecologically. Many species of plants, such as black sage, and laurel sumac, occur in more than one plant community and many animals rely on the predictable mix of communities found in undisturbed Mediterranean ecosystems to sustain them through the seasons and during different portions of their life histories.

Strong evidence for the interconnectedness between chaparral, coastal scrub and other habitats is provided by "opportunistic foragers" (animals that follow the growth and flowering cycles across these habitats). Coastal scrub and chaparral flowering and growth cycles differ in a complimentary and sequential way that many animals have evolved to exploit as a required part of their life cycles. Whereas coastal sage scrub is

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[35] Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the City of Malibu. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. (See attached comment document in Appendix).

[36] Hanes, T.L. 1965. Ecological studies on two closely related chaparral shrubs in southern California. Ecological Monographs 41:27-52.

[37] Gray, K.L. 1983. Competition for light and dynamic boundary between chaparral and coastal sage scrub. Madrono 30(1):43-49. Zedler, P.H., C.R. Gautier and G.S. McMaster. 1983. Vegetation change in response to extreme events: The effect of a short interval between fires in California chaparral and coastal sage scrub. Ecology 64(4): 809-818.

shallow-rooted and responds quickly to seasonal rains, chaparral plants are typically deep-rooted having most of their flowering and growth later in the rainy season after the deeper soil layers have been saturated[38]. New growth of chaparral evergreen shrubs takes place about four months later than coastal sage scrub plants and it continues later into the summer[39]. For example, in coastal sage scrub, California sagebrush flowers and grows from August to February and coyote bush flowers from August to November[40]. In contrast, chamise chaparral and bigpod ceanothus flower from April to June, buck brush ceanothus flowers from February to April, and hoaryleaf ceanothus flowers from March to April.

Many groups of animals exploit these seasonal differences in growth and blooming period. The opportunistic foraging insect community (e.g., honeybees, butterflies and moths) tends to follow these cycles of flowering and new growth, moving from coastal sage scrub in the early rainy season to chaparral in the spring[41]. The insects in turn are followed by insectivorous birds such as the blue-gray gnatcatcher[42], bushtit, cactus wren, Bewick's wren and California towhee. At night bats take over the role of daytime insectivores. At least 12 species of bats (all of which are considered sensitive) occur in the Santa Monica Mountains[43]. Five species of hummingbirds also follow the flowering cycle[44].

Many species of 'opportunistic foragers' which utilize several different community types, perform important ecological roles during their seasonal movements. The scrub jay is a good example of such a species. The scrub jay is an omnivore and forages in coastal sage scrub, chaparral, and oak woodlands for insects, berries and notably acorns. Its foraging behavior includes the habit of burying acorns, usually at sites away from the parent tree canopy. Buried acorns have a much better chance of successful germination (about two-fold) than exposed acorns because they are protected from desiccation and predators. One scrub jay will bury approximately 5000 acorns in a year. The scrub jay therefore performs the function of greatly increasing recruitment and regeneration of oak woodland, a valuable and sensitive habitat type[45].

Like the scrub jay, most of the species of birds that inhabit the Mediterranean ecosystem in the City of Malibu require more than one community type in order to

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[38] DeSimone, S. 2000. California's coastal sage scrub. Fremontia 23(4):3-8. Mooney, H.A. 1988. Southern coastal scrub. Chap. 13 *in* Barbour, M.G. and J. Majors; Eds. 1988. Terrestrial vegetation of California, 2nd Edition. Calif. Native Plant Soc. Spec. Publ. #9.

[39] Schoenherr, A. A. 1992. A natural history of California. University of California Press, Berkeley. 772p.

[40] Dale, N. 2000. Flowering plants of the Santa Monica Mountains. California Native Plant Society, 1722 J Street, Suite 17, Sacramento, CA 95814.

[41] Ballmer, G. R. 1995. What's bugging coastal sage scrub. Fremontia 23(4):17-26.

[42] Root, R. B. 1967. The niche exploitation pattern of the blue-gray gnatcatcher. Ecol. Monog.37:317-350.

[43] Letter from Dr. Marti Witter, NPS, dated Sept. 13, 2001, in Letters Received.

[44] National Park Service. 1993. A checklist of the birds of the Santa Monica Mountains National Recreation Area. Southwest Parks and Monuments Assoc., 221 N. Court, Tucson, AZ. 85701

[45] Borchert, M. I., F. W. Davis, J. Michaelsen and L. D. Oyler. 1989. Interactions of factors affecting seedling recruitment of blue oak (*Quercus douglasii*) in California. Ecology 70:389-404. Bossema, I. 1979. Jays and oaks: An eco-ethological study of a symbiosis. Behavior 70:1-118. Schoenherr, A. A. 1992. A natural history of California. University of California Press, Berkeley. 772p.

flourish. Many species include several community types in their daily activities. Other species tend to move from one community to another seasonally. The importance of maintaining the integrity of the multi-community ecosystem is clear in the following observations of Dr. Hartmut Walter of the University of California at Los Angeles:

> "Bird diversity is directly related to the habitat mosaic and topographic diversity of the Santa Monicas. Most bird species in this bio-landscape require more than one habitat for survival and reproduction." "A significant proportion of the avifauna breeds in the wooded canyons of the Santa Monicas. Most of the canyon breeders forage every day in the brush- and grass-covered slopes, ridges and mesas. They would not breed in the canyons in the absence of the surrounding shrublands. Hawks, owls, falcons, orioles, flycatchers, woodpeckers, warblers, hummingbirds, etc. belong to this group. Conversely, some of the characteristic chaparral birds such as thrashers, quails, and wrentits need the canyons for access to shelter, protection from fire, and water. The regular and massive movement of birds between riparian corridors and adjacent shrublands has been demonstrated by qualitative and quantitative observations by several UCLA students[46]."

Thus, the Mediterranean ecosystem of the City of Malibu and the greater Santa Monica Mountains is a mosaic of vegetation types linked together ecologically. The high biodiversity of the area results from both the diversity and the interconnected nature of this mosaic. Most raptor species, for example, require large areas and will often require different habitats for perching, nesting and foraging. Fourteen species of raptors (13 of which are considered sensitive) are reported from the Santa Monica Mountains. These species utilize a variety of habitats including rock outcrops, oak woodlands, riparian areas, grasslands, chaparral, coastal sage scrub, estuaries and freshwater lakes[47].

When the community mosaic is disrupted and fragmented by development, many chaparral-associated native bird species are impacted. In a study of landscape-level fragmentation in the Santa Monica Mountains, Stralberg[48] found that the ash-throated flycatcher, Bewick's wren, wrentit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, and California towhee all decreased in numbers as a result of urbanization. Soule[49] observed similar effects of fragmentation on chaparral and coastal sage scrub birds in the San Diego area.

In summary, all of the vegetation types in this ecosystem are strongly linked by animal movement and foraging. Whereas classification and mapping of vegetation types may

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[46] Walter, Hartmut. Bird use of Mediterranean habitats in the Santa Monica Mountains, Coastal Commission Workshop on the Significance of Native Habitats in the Santa Monica Mountains. CCC Hearing, June 13, 2002, Queen Mary Hotel.

[47] National Park Service. 1993. A checklist of the birds of the Santa Monica Mountains National Recreation Area. Southwest Parks and Monuments Assoc., 221 N. Court, Tucson, AZ. 85701. *and* Letter from Dr. Marti Witter, NPS, Dated Sept. 13, 2001, in Letters Received.

[48] Stralberg, D. 2000. Landscape-level urbanization effects on chaparral birds: A Santa Monica Mountains case study. p 125-136 *in*: Keeley, J. E., M. Baer-Keeley and C. J. Fotheringham (eds), 2nd Interface Between Ecology and Land Development in California, U.S. Geological Survey Open-File Report 00-62.

[49] Soule, M. E, D. T. Bolger, A. C. Alberts, J. Wright, M. Sorice and S. Hill. 1988. Reconstructed dynamics of rapid extinctions of chaparral-requiring birds in urban habitat islands. Conserv. Biol. 2: 75-92.

suggest a snapshot view of the system, the seasonal movements and foraging of animals across these habitats illustrates the dynamic nature and vital connections that are crucial to the survival of this ecosystem.

iv. Coastal Sage Scrub

"Coastal sage scrub" is a generic vegetation type that is inclusive of several subtypes[50]. In the City of Malibu, coastal sage scrub includes the broad categories Venturan coastal sage scrub and coastal bluff scrub. However, in his preliminary list of the vegetation of the Malibu coastal region, Dr. Keeler-Wolf identifies some 15 vegetation types or "alliances" of coastal scrub vegetation. The mix of species making up the typical CSS on the Malibu coast, which is dominated by purple sage and California sagebrush, is categorized as rare or relatively restricted to the Santa Monica Mountains.

In general, coastal sage scrub is comprised of dominant species that are semi-woody and low-growing, with shallow, dense roots that enable them to respond quickly to rainfall. Under the moist conditions of winter and spring, they grow quickly, flower, and produce light, wind-dispersed seeds, making them good colonizers following disturbance. These species cope with summer drought by dying back, dropping their leaves or producing a smaller summer leaf in order to reduce water loss. Stands of coastal sage scrub are much more open than chaparral and contain a greater admixture of herbaceous species. Coastal sage scrub is generally restricted to drier sites, such as low foothills, south-facing slopes, and shallow soils at higher elevations.

The species composition and structure of individual stands of coastal sage scrub depend on moisture conditions that derive from slope, aspect, elevation and soil type. Drier sites are dominated by more drought-resistant species (e.g., California sagebrush, coast buckwheat, and *Opuntia* cactus). Where more moisture is available (e.g., north-facing slopes), larger evergreen species such as toyon, laurel sumac, lemonadeberry, and sugar bush are common. As a result, there is more cover for wildlife, and movement of large animals from chaparral into coastal sage scrub is facilitated in these areas. Characteristic wildlife in this community includes Anna's hummingbirds, rufous-sided towhees, California quail, greater roadrunners, Bewick's wrens, coyotes, and coast horned lizards[51], but most of these species move between coastal sage scrub and chaparral during their daily activities or on a seasonal basis.

Of the many important ecosystem roles performed by the coastal sage scrub community, five are particularly important in the City of Malibu. Coastal sage scrub provides critical linkages between riparian corridors, provides essential habitat for species that require several habitat types during the course of their life histories,

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[50] Kirkpatrick, J.B. and C.F. Hutchinson. 1977. The community composition of Californian coastal sage scrub. Vegetatio 35:21-33; Holland, 1986. op.cit.; Sawyer and Keeler-Wolf, 1995, op.cit.

[51] National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000.

provides essential habitat for local endemics, supports rare species that are in danger of extinction, and reduces erosion, thereby protecting the water quality of coastal streams.

Riparian woodlands are primary contributors to the high biodiversity of the Santa Monica Mountains. The ecological integrity of those riparian habitats not only requires wildlife dispersal along the streams, but also depends on the ability of animals to move from one riparian area to another. Such movement requires that the riparian corridors be connected by suitable habitat. In the City of Malibu, coastal sage scrub provides that function. Significant development in coastal sage scrub would reduce the riparian corridors to linear islands of habitat with severe edge effects[52], reduced diversity, and lower productivity.

Most wildlife species and many species of plants utilize several types of habitat. Many species of animals endemic to Mediterranean habitats move among several plant communities during their daily activities and many are reliant on different communities either seasonally or during different stages of the their life cycle. Without an intact mosaic of coastal sage scrub, chaparral, and riparian community types, many species will not thrive. Specific examples of the importance of interconnected communities, or habitats, were provided in the discussion above. This is an essential ecosystem role of coastal sage scrub in the City of Malibu.

A characteristic of the coastal sage scrub vegetation type is a high degree of endemism. This is consonant with Westman's observation that 44 percent of the species he sampled in coastal sage scrub occurred at only one of his 67 sites, which were distributed from the San Francisco Bay area to Mexico[53]. Species with restricted distributions are by nature more susceptible to loss or degradation of their habitat. Westman said of this unique and local aspect of coastal sage scrub species in California:

> "While there are about 50 widespread sage scrub species, more than half of the 375 species encountered in the present study of the sage scrub flora are rare in occurrence within the habitat range. In view of the reduction of the area of coastal sage scrub in California to 10-15% of its former extent and the limited extent of preserves, measures to conserve the diversity of the flora are needed."[54]

Coastal sage scrub in southern California provides habitat for about 100 rare species[55], many of which are also endemic to limited geographic regions[56]. In the Santa Monica

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[52] Environmental impacts are particularly severe at the interface between development and natural habitats. The greater the amount of this "edge" relative to the area of natural habitat, the worse the impact.

[53] Westman, W.E. 1981. Diversity relations and succession in Californian coastal sage scrub. Ecology 62:170-184.

[54] Ibid.

[55] Atwood, J. L. 1993. California gnatcatchers and coastal sage scrub: The biological basis for endangered species listing. pp.149-166 *In*: Interface Between Ecology and Land Development in California. Ed. J. E. Keeley, So. Calif. Acad. of Sci., Los Angeles. California Department of Fish and Game (CDFG). 1993. The Southern California Coastal

Mountains, rare animals that inhabit coastal sage scrub[57] include the Santa Monica shieldback katydid, silvery legless lizard, coastal cactus wren, Bell's sparrow, San Diego desert woodrat, southern California rufous-crowned sparrow, coastal western whiptail, and San Diego horned lizard. Some of these species are also found in chaparral[58]. Rare plants found in coastal sage scrub in the Santa Monica Mountains include Santa Susana tarplant, Coulter's saltbush, Blockman's dudleya, Braunton's milkvetch, Parry's spineflower, and Plummer's mariposa lily[59]. A total of 32 sensitive species of reptiles, birds and mammals have been identified in this community by the National Park Service.[60]

One of the most important ecological functions of coastal sage scrub in the City of Malibu is to protect water quality in coastal streams by reducing erosion in the watershed. Although shallow rooted, the shrubs that define coastal sage scrub have dense root masses that hold the surface soils much more effectively than the exotic annual grasses and forbs that tend to dominate in disturbed areas. The native shrubs of this community are resistant not only to drought, as discussed above, but well adapted to fire. Most of the semi-woody shrubs have some ability to crown sprout after fire. Several CSS species (e.g., *Eriogonum cinereum*) in the City of Malibu and adjacent areas resprout vigorously and other species growing near the coast demonstrate this characteristic more strongly than do individuals of the same species growing at inland sites in Riverside County.[61] These shrub species also tend to recolonize rapidly from seed following fire. As a result they provide persistent cover that reduces erosion.

In addition to performing extremely important roles in the Mediterranean ecosystem, the coastal sage scrub community type has been drastically reduced in area by habitat loss to development. In the early 1980's it was estimated that 85 to 90 percent of the original extent of coastal sage scrub in California had already been destroyed.[62] Losses since that time have been significant and particularly severe in the coastal zone. Roughly 40 – 50 percent of coastal sage scrub in the City of Malibu and adjacent coastal slopes has been displaced by development[63].

Therefore, because of its increasing rarity, its important role in the functioning of the Santa Monica Mountains Mediterranean ecosystem, and its extreme vulnerability to

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Sage Scrub (CSS) Natural Communities Conservation Plan (NCCP). CDFG and Calif. Resources Agency, 1416 9th St., Sacramento, CA 95814.

[56] Westman, W.E. 1981. op. cit.

[57] Biological Resources Assessment of the Proposed Santa Monica Mountains Significant Ecological Area. Nov. 2000. Los Angeles Co., Dept. of Regional Planning, 320 West Temple St., Rm. 1383, Los Angeles, CA 90012.

[58] O'Leary J.F., S.A. DeSimone, D.D. Murphy, P.F. Brussard, M.S. Gilpin, and R.F. Noss. 1994. Bibliographies on coastal sage scrub and related malacophyllous shrublands of other Mediterranean-type climates. *California Wildlife Conservation Bulletin* 10:1–51.

[59] Biological Resources Assessment of the Proposed Santa Monica Mountains Significant Ecological Area. Nov. 2000. Los Angeles Co., Dept. of Regional Planning, 320 West Temple St., Rm. 1383, Los Angeles, CA 90012.

[60] NPS, 2000, op cit.

[61] Dr. John O'Leary, SDSU, personal communication to Dr. John Dixon, CCC, July 2, 2002

[62] Westman, W.E. 1981. op. cit.

[63] Dr. John O'Leary, SDSU, personal communication to Dr. John Dixon, CCC, June 26, 2002

development, the Commission finds that coastal sage scrub within the City of Malibu, as described in Policy 3.1 of the Land Use Plan, is ESHA under the Coastal Act.

v. Chaparral

Another shrub community in the Santa Monica Mountain Mediterranean ecosystem is chaparral. Like "coastal sage scrub," this is a generic category of vegetation. Chaparral species have deep roots (10s of ft) and hard waxy leaves, adaptations to drought that increase water supply and decrease water loss at the leaf surface. Some chaparral species cope more effectively with drought conditions than do desert plants[64]. Chaparral plants vary from about one to four meters tall and form dense, intertwining stands with nearly 100 percent ground cover. As a result, there are few herbaceous species present in mature stands. Chaparral is well adapted to fire. Many species regenerate mainly by crown sprouting; others rely on seeds which are stimulated to germinate by the heat and ash from fires. Over 100 evergreen shrubs may be found in chaparral[65]. On average, chaparral is found in wetter habitats than coastal sage scrub, being more common at higher elevations and on north facing slopes. At very roughly 1000 ft. elevation in and adjacent to the City of Malibu, the vegetation shifts from mostly coastal sage scrub to a predominance of chaparral. Coincidentally, this occurs near the City boundary so that little chaparral exists within the city itself (Exhibit 4). On the National Park Service map, northern mixed chaparral occurs in a few small patches within the Malibu City boundary constituting about 10% of the area[66].

Northern mixed chaparral can be dominated by chamise, scrub oak or one of several species of manzanita or by ceanothus. In addition, it commonly contains woody vines and large shrubs such as mountain mahogany, toyon, hollyleaf redberry, and sugarbush[67]. The rare red shank chaparral plant community occurs in the Santa Monica Mountains, but based on current information, it is not known to occur in the City of Malibu. Although included within the category "northern mixed chaparral" in the vegetation map, several types of ceanothus chaparral are reported in the Santa Monica Mountains. Ceanothus chaparral occurs on stable slopes and ridges, and may be dominated by bigpod ceanothus, buck brush ceanothus, hoaryleaf ceanothus, or greenbark ceanothus. In addition to ceanothus, other species that are usually present in varying amounts are chamise, black sage, holly-leaf redberry, sugarbush, and coast golden bush[68].

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[64] Dr. Stephen Davis, Pepperdine University. Presentation at the CCC workshop on the significance of native habitats in the Santa Monica Mountains. June 13, 2002.
[65] Keely, J.E. and S.C. Keeley. Chaparral. Pages 166-207 in M.G. Barbour and W.D. Billings, eds. North American Terrestrial Vegetation. New York, Cambridge University Press.
[66] National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000. (Fig. 11) and Exhibit 2: NPS Vegetation map in this document.
[67] Ibid.
[68] Ibid.

Several sensitive plant species that occur in the chaparral of the Santa Monica Mountains area are: Santa Susana tarplant, Lyon's pentachaeta, marcescent dudleya, Santa Monica Mountains dudleya, Braunton's milk vetch and salt spring checkerbloom[69]. Several occurring or potentially occurring sensitive animal species in chaparral from the area are: Santa Monica shieldback katydid, western spadefoot toad, silvery legless lizard, San Bernardino ring-neck snake, San Diego mountain kingsnake, coast patch-nosed snake, sharp-shinned hawk, southern California rufous-crowned sparrow, Bell's sparrow, yellow warbler, pallid bat, long-legged myotis bat, western mastiff bat, and San Diego desert woodrat.[70]

Coastal sage scrub and chaparral are the predominant generic community types of the Santa Monica Mountains and provide the living matrix within which rarer habitats like riparian woodlands exist. These two shrub communities share many important ecosystem roles. Like coastal sage scrub, chaparral within the City of Malibu provides critical linkages among riparian corridors, provides essential habitat for species that require several habitat types during the course of their life histories, provides essential habitat for sensitive species, and stabilizes steep slopes and reduces erosion, thereby protecting the water quality of coastal streams.

Many species of animals in Mediterranean habitats characteristically move among several plant communities during their daily activities, and many are reliant on different communities either seasonally or during different stages of their life cycle. The importance of an intact mosaic of coastal sage scrub, chaparral, and riparian community types is perhaps most critical for birds. However, the same principles apply to other taxonomic groups. For example, whereas coastal sage scrub supports a higher diversity of native ant species than chaparral, chaparral habitat is necessary for the coast horned lizard, an ant specialist[71]. Additional examples of the importance of an interconnected communities, or habitats, were provided in the discussion of coastal sage scrub above. This is an extremely important ecosystem role of chaparral in the City of Malibu.

Chaparral is also remarkably adapted to control erosion, especially on steep slopes. The root systems of chaparral plants are very deep, extending far below the surface and penetrating the bedrock below[72], so chaparral literally holds the hillsides together and prevents slippage.[73] In addition, the direct soil erosion from precipitation is also greatly

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[69] Biological Resources Assessment of the Proposed Santa Monica Mountains Significant Ecological Area. Nov. 2000. Los Angeles Co., Dept. of Regional Planning, 320 West Temple St., Rm. 1383, Los Angeles, CA 90012.
[70] Ibid.
[71] A.V. Suarez. Ants and lizards in coastal sage scrub and chaparral. A presentation at the CCC workshop on the significance of native habitats in the Santa Monica Mountains. June 13, 2002.
[72] Helmers, H., J.S. Horton, G. Juhren and J. O'Keefe. 1955. Root systems of some chaparral plants in southern California. Ecology 36(4):667-678. Kummerow, J. and W. Jow. 1977. Root systems of chaparral shrubs. Oecologia 29:163-177.
[73] Radtke, K. 1983. *Living more safely in the chaparral-urban interface*. General Technical Report PSW-67. U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station, Berkeley, California. 51 pp.

reduced by 1) water interception on the leaves and above ground foliage and plant structures, and 2) slowing the runoff of water across the soil surface and providing greater soil infiltration. Chaparral plants are extremely resistant to drought, which enables them to persist on steep slopes even during long periods of adverse conditions. Many other species die under such conditions, leaving the slopes unprotected when rains return. Since chaparral plants recover rapidly from fire, they quickly re-exert their ground stabilizing influence following burns. The effectiveness of chaparral for erosion control after fire increases rapidly with time[74]. Thus, the erosion from a 2-inch rain-day event drops from 5 yd^3/acre of soil one year after a fire to 1 yd^3/acre after 4 years.[75] The following table illustrates the strong protective effect of chaparral in preventing erosion.

Soil erosion as a function of 24-hour precipitation and chaparral age.

Years Since Fire	Erosion (yd^3/acre) at Maximum 24-hr Precipitation of:		
	2 inches	5 inches	11 inches
1	5	20	180
4	1	12	140
17	0	1	28
50+	0	0	3

Therefore, because of its important roles in the functioning of the Santa Monica Mountains Mediterranean ecosystem, and its extreme vulnerability to development, the Commission finds that chaparral within the City of Malibu, as described in Policy 3.1 of the Land Use Plan, is ESHA under the Coastal Act.

vi. Coastal Live Oak Woodland

Coast live oak woodland occurs mostly on north slopes, shaded ravines and canyon bottoms. Besides the coast live oak, this plant community includes hollyleaf cherry, California bay laurel, coffeberry, and poison oak. Coast live oak woodland is more tolerant of salt-laden fog than other oaks and is generally found nearer the coast[76]. According to the existing vegetation maps of the City of Malibu[77], coast live oak woodland only occurs in a small upland area at the extreme western extent. However, coast live oak also occurs as a riparian corridor species within the City of Malibu.

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[74] Kittredge, J. 1973. Forest influences — the effects of woody vegetation on climate, water, and soil. Dover Publications, New York. 394 pp. Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the City of Malibu. (Table 1). The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. Vicars, M. (ed.) 1999. FireSmart: protecting your community from wildfire. Partners in Protection, Edmonton, Alberta.

[75] Ibid.

[76] NPS 2000. op. cit.

[77].NPS 2000. op. cit. (Fig. 11), and Exhibit 2: NPS Vegetation map in this document.

The important ecosystem functions of oak woodlands are widely recognized[78]. Oak woodlands support a high diversity of birds[79], and provide refuge for many species of sensitive bats[80]. Typical wildlife in this habitat includes acorn woodpeckers, scrub jays, plain titmice, northern flickers, cooper's hawks, western screech owls, mule deer, gray foxes, ground squirrels, jackrabbits and several species of sensitive bats.

Therefore, because of its important ecosystem functions, the Commission finds that Oak woodlands within the City of Malibu are ESHA under the Coastal Act.

vii. Grasslands

Grasslands consist of low herbaceous vegetation that is dominated by grass species but may also harbor native or non-native forbs.

California Perennial Grasslands

Native grassland within the Santa Monica Mountains consists of perennial native needlegrasses: purple needlegrass, (Nassella pulchra), foothills needlegrass, (Nassella lepida) and nodding needlegrass (Nassella cernua). These grasses may occur in the same general area but they do not typically mix, tending to segregate based on slope and substrate factors[81]. Mixed with these native needlegrasses are many non-native annual species that are characteristic of California annual grassland[82]. Native perennial grasslands are now exceedingly rare[83]. In California, native grasslands once covered nearly 20 percent of the land area, but today are reduced to less than 0.1 percent[84]. The California Natural Diversity Database (CNDDB) lists purple needlegrass habitat as a community needing priority monitoring and restoration. The CNDDB considers grasslands with 10 percent or more cover by purple needlegrass to be significant, and recommends that these be protected as remnants of original California prairie. Patches of this sensitive habitat occur throughout the Santa Monica Mountains, and in the City of Malibu where they are intermingled with coastal sage scrub, chaparral and oak woodlands.

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[78] Block, W.M., M.L. Morrison, and J. Verner. 1990. Wildlife and oak-woodland interdependency. *Fremontia* 18(3):72–76. Pavlik, B.M., P.C. Muick, S. Johnson, and M. Popper. 1991. *Oaks of California.* Cachuma Press and California Oak Foundation, Los Olivos, California. 184 pp.

[79] Cody, M.L. 1977. Birds. Pp. 223–231 *in* Thrower, N.J.W., and D.E. Bradbury (eds.). *Chile-California Mediterranean scrub atlas.* US/IBP Synthesis Series 2. Dowden, Hutchinson & Ross, Stroudsburg, Pennsylvania. National Park Service. 1993. A checklist of the birds of the Santa Monica Mountains National Recreation Area. Southwest Parks and Monuments Assoc., 221 N. Court, Tucson, AZ. 85701

[80] Miner, K.L., and D.C. Stokes. 2000. Status, conservation issues, and research needs for bats in the south coast bioregion. Paper presented at *Planning for biodiversity: bringing research and management together*, February 29, California State University, Pomona, California.

[81] Sawyer, J. O. and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, 1722 J St., Suite 17, Sacramento, CA 95814.

[82] Biological Resources Assessment of the Proposed Santa Monica Mountains Significant Ecological Area. Nov. 2000. Los Angeles Co., Dept. of Regional Planning, 320 West Temple St., Rm. 1383, Los Angeles, CA 90012.

[83] Noss, R.F., E.T. LaRoe III and J.M. Scott. 1995. Endangered ecosystems of the United States: a preliminary assessment of loss and degradation. Biological Report 28. National Biological Service, U.S. Dept. of Interior.

[84] NPS 2000. op. cit.

Many of the raptors that inhabit the Santa Monica Mountains make use of grasslands for foraging because they provide essential habitat for small mammals and other prey. Grasslands adjacent to woodlands are particularly attractive to these birds of prey since they simultaneously offer perching and foraging habitat. Particularly noteworthy in this regard are the white-tailed kite, northern harrier, sharp-shinned hawk, Cooper's hawk, red-shouldered hawk, red-tailed hawk, golden eagle, American kestrel, merlin, and prairie falcon[85].

Therefore, because of their extreme rarity and their important ecosystem functions, the Commission finds that California native perennial grasslands within the City of Malibu are ESHA under the Coastal Act.

California Annual Grassland

The term "California annual grassland" has been proposed to recognize the fact that non-native annual grasses should now be considered naturalized and a permanent feature of the California landscape and should be acknowledged as providing important ecological functions. These habitats support large populations of small mammals and provide essential foraging habitat for many species of birds of prey. California annual grassland generally consists of dominant invasive annual grasses that are primarily of Mediterranean origin. The dominant species in this community include common wild oats (Avena fatua), slender oat (Avena barbata), red brome (Bromus madritensis ssp. Rubens), ripgut brome, (Bromus diandrus), and herbs such as black mustard (Brassica nigra), wild radish (Raphanus sativus) and sweet fennel (Foeniculum vulgare). Annual grasslands are located in patches throughout the Santa Monica Mountains in previously disturbed areas, cattle pastures, valley bottoms and along roadsides. While many of these patches are dominated by invasive non-native species, it would be premature to say that they are never sensitive or do not harbor valuable annual native species. A large number of native forbs also may be present in these habitats[86], and many native wildflowers occur primarily in annual grasslands. In addition, annual grasslands are primary foraging areas for many sensitive raptor species in the area.

The Commission finds that on-site inspection of California annual grasslands should be done prior to any impacts to determine if any rare native species are present or if any rare wildlife rely on the habitat and to determine if the site meets the Coastal Act ESHA criteria.

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[85] NPS 2000. op. cit.
[86] Holstein, G. 2001. Pre-agricultural grassland in Central California. Madrono 48(4):253-264. Stromberg, M.R., P. Kephart and V. Yadon. 2001. Composition, invaisibility and diversity of coastal California grasslands. Madrono 48(4):236-252.

viii. Coastal Strand / Coastal Dunes

Malibu includes twenty-seven miles of coastline, some of which is coastal dune habitat that is home to many sensitive species of plants and animals. Typical native species of plants are sand verbena, silver beachweed, saltbush (including the rare *Atriplex coulteri* and *A. parishii*), and beach morning glory. This harsh habitat is characterized by salt spray, slow nutrient cycling and desiccating winds that contribute to a desert-like environment. Relatively few plant species are adapted to such an environment and most tend to grow slowly. The slow growth rates and shifting substrate make this habitat slow to recover from disturbance. Because of their unique nature, dune habitats are known to harbor many endemic and rare insect species that have adapted to this environment[87].

Therefore, because of their rarity, restriction to particular coastal environments, their important ecosystem functions, and vulnerability to disturbance, the Commission finds that coastal dunes within the City of Malibu are ESHA under the Coastal Act.

d. Effects of Human Activities and Development on Habitats within the City of Malibu

The natural habitats of the Santa Monica Mountains and the City of Malibu are highly threatened by current development pressure, fragmentation and impacts from the surrounding megalopolis. The developed part of Malibu represents the coastal extension of this urbanization. About 54% of the undeveloped Santa Monica Mountains are in private ownership[88], and computer simulation studies of the development patterns over the next 25 years predict a serious increase in habitat fragmentation[89]. This is particularly true where development is concentrated on the coast, much of which is already badly fragmented (e.g. Point Dume and the eastern end of Malibu). Development and associated human activities have many well-documented deleterious effects on natural communities. These environmental impacts may be both direct and indirect and include the effects of increased fire frequency, of fire clearance, of introduction of exotic species, and of night lighting.

i. Increased Fire Frequency

Since 1925, all the major fires in the Santa Monica Mountains have been caused by human activities[90]. Increased fire frequency in the City of Malibu and the rest of the

[87] Powell, J.A. 1981. Endangered habitats for insects: California coastal sand dunes. Atala 6(1-2):41-55.
[88] National Park Service. 2000. Draft: General Management Plan & Environmental Impact Statement, Santa Monica Mountains National Recreation Area, US Dept. of Interior, National Park Service, December 2000.
[89] Swenson, J. J., and J. Franklin. 2000. The effects of future urban development on habitat fragmentation in the Santa Monica Mountains. Landscape Ecol. 15:713-730.
[90] NPS, 2000, op. cit.

Santa Monica Mountains alters plant communities by creating conditions that select for some species over others. Strong resprouting plant species such as laurel sumac, are favored while non-sprouters like bigpod ceanothus, are at a disadvantage. Frequent fire recurrence before the non-sprouters can develop and reestablish a seed bank is detrimental, so that with each fire their chances for propagation are further reduced. Resprouters can be sending up new shoots quickly, and so they are favored in an increased fire frequency regime. Also favored are weedy and invasive species. Dr. Steven Davis in his abstract for the Coastal Commission Workshop stated[91] "*We have evidence that recent increases in fire frequency has eliminated drought-hardy non-sprouters from chaparral communities near Malibu, facilitating the invasion of exotic grasses and forbes that further exacerbate fire frequency.*" Thus, simply increasing fire frequency from about once every 22 years (the historical frequency) to about once every 12 years (the current frequency) can completely change the vegetation community. This has cascading effects throughout the ecosystem.

ii. Fuel Clearance

The removal of vegetation for fire protection in the Malibu area is required by law in "Very High Fire Hazard Severity Zones"[92]. Fuel removal is reinforced by insurance carriers[93]. Generally, the Santa Monica Mountains are considered to be a high fire hazard severity zone. In such high fire hazard areas, homeowners must often resort to the California FAIR Plan to obtain insurance. Because of the high risk, all homes in "brush areas" are assessed an insurance surcharge if they have less than the recommended 200-foot fuel modification zone[94] around the home. The combination of insurance incentives and regulation assures that the 200-foot clearance zone will be applied universally[95]. While it is not required that all of this zone be cleared of vegetation, the common practice is simply to disk this zone, essentially removing or highly modifying all native vegetation. For a new structure not adjacent to existing structures, this results in the removal or modification of a minimum of three acres of vegetation[96]. While the directly impacted area is large, the effects of fuel modification extend beyond the 200-foot clearance area.

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[91] Davis, Steven. Effects of fire and other factors on patterns of chaparral in the Santa Monica Mountains, Coastal Commission Workshop on the Significance of Native Habitats in the Santa Monica Mountains. CCC Hearing, June 13, 2002, Queen Mary Hotel.

[92] 1996 Los Angeles County Fire Code Section 1117.2.1

[93] Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the City of Malibu. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. Vicars, M. (ed.) 1999. FireSmart: protecting your community from wildfire. Partners in Protection, Edmonton, Alberta.

[94] Fuel Modification Plan Guidelines. Co. of Los Angeles Fire Department, Fuel Modification Unit, Prevention Bureau, Forestry Division, Brush Clearance Section, January 1998.

[95] Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the City of Malibu. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024.

[96] Ibid.

iii. Effects of Fuel Clearance on Bird Communities

The impacts of fuel clearance on bird communities was studied by Stralberg who identified three ecological categories of birds in the Santa Monica Mountains: 1) local and long distance migrators (ash-throated flycatcher, Pacific-slope flycatcher, phainopepla, black-headed grosbeak), 2) chaparral-associated species (Bewick's wren, wrentit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, California towhee) and 3) urban-associated species (mourning dove, American crow, Western scrub-jay, Northern mockingbird)[97]. It was found in this study that the number of migrators and chaparral-associated species decreased due to habitat fragmentation while the abundance of urban-associated species increased. The impact of fuel clearance is to greatly increase this edge-effect of fragmentation by expanding the amount of cleared area and "edge" many-fold. Similar results of decreases in fragmentation-sensitive bird species are reported from the work of Bolger et al. in southern California chaparral[98].

iv. Effects of Fuel Clearance on Arthropod Communities

Fuel clearance and habitat modification may also disrupt native arthropod communities, and this can have surprising effects far beyond the cleared area on species seemingly unrelated to the direct impacts. A particularly interesting and well-documented example with ants and lizards illustrates this point. When non-native landscaping with intensive irrigation is introduced, the area becomes favorable for the invasive and non-native Argentine ant. This ant forms "super colonies" that can forage more than 650 feet out into the surrounding native chaparral or coastal sage scrub around the landscaped area[99]. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat[100]. These native ants are the primary food resource for the native coast horned lizard, a California "Species of Special Concern." As a result of Argentine ant invasion, the coast horned lizard and its native ant food resources are diminished in areas near landscaped and irrigated developments[101]. In addition to specific effects on the coast horned lizard, there are other Mediterranean habitat ecosystem processes that are impacted by Argentine ant invasion through impacts on

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[97] Stralberg, D. 2000. Landscape-level urbanization effects on chaparral birds: a Santa Monica Mountains case study. Pp. 125–136 *in* Keeley, J.E., M. Baer-Keeley, and C.J. Fotheringham (eds.). *2nd interface between ecology and land development in California*. U.S. Geological Survey, Sacramento, California.

[98] Bolger, D. T., T. A. Scott and J. T. Rotenberry. 1997. Breeding bird abundance in an urbanizing landscape in coastal Southern California. Conserv. Biol. 11:406-421.

[99] Suarez, A.V., D.T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal southern California. Ecology 79(6):2041-2056.

[100] Holway, D.A. 1995. The distribution of the Argentine ant (*Linepithema humile*) in central California: a twenty-year record of invasion. Conservation Biology 9:1634-1637. Human, K.G. and D.M. Gordon. 1996. Exploitation and interference competition between the invasive Argentine ant, (*Linepithema humile*), and native ant species. Oecologia 105:405-412.

[101] Fisher, R.N., A.V. Suarez and T.J. Case. 2002. Spatial patterns in the abundance of the coastal horned lizard. Conservation Biology 16(1):205-215. Suarez, A.V. J.Q. Richmond and T.J. Case. 2000. Prey selection in horned lizards following the invasion of Argentine ants in southern California. Ecological Applications 10(3):711-725.

long-evolved native ant-plant mutualisms[102]. The composition of the whole arthropod community changes and biodiversity decreases when habitats are subjected to fuel modification. In coastal sage scrub disturbed by fuel modification, fewer arthropod predator species are seen and more exotic arthropod species are present than in undisturbed habitats[103].

Studies in the Mediterranean vegetation of South Africa (equivalent to California shrubland with similar plant species) have shown how the invasive Argentine ant can disrupt the whole ecosystem.[104] In South Africa the Argentine ant displaces native ants as they do in California. Because the native ants are no longer present to collect and bury seeds, the seeds of the native plants are exposed to predation, and consumed by seed eating insects, birds and mammals. When this habitat burns after Argentine ant invasion the large-seeded plants that were protected by the native ants all but disappear. So the invasion of a non-native ant species drives out native ants, and this can cause a dramatic change in the species composition of the plant community by disrupting long-established seed dispersal mutualisms. In California, some insect eggs are adapted to being buried by native ants in a manner similar to plant seeds[105].

iv. Artificial Night Lighting

One of the more recently recognized human impacts on ecosystem function is that of artificial night lighting as it effects the behavior and function of many different types of organisms[106]. For literally billions of years the only nighttime sources of light were the moon and stars, and living things have adapted to this previously immutable standard and often depend upon it for their survival. A review of lighting impacts suggests that whereas some species are unaffected by artificial night lighting, many others are severely impacted. Overall, most impacts are negative ones or ones whose outcome is unknown. Research to date has found negative impacts to plants, aquatic and terrestrial invertebrates, amphibians, fish, birds and mammals, and a detailed literature review can be found in the report by Longcore and Rich[107].

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[102] Suarez, A.V., D.T. Bolger and T.J. Case. 1998. Effects of fragmentation and invasion on native ant communities in coastal southern California. Ecology 79(6):2041-2056. Bond, W. and P. Slingsby. Collapse of an Ant-Plant Mutualism: The Argentine Ant (*Iridomyrmex humilis*) and Myrmecochorous Proteaceae. Ecology 65(4):1031-1037.
[103] Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.
[104] Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. Nature 413:635-639.
[105] Hughes, L. and M. Westoby. 1992. Capitula on stick insect eggs and elaiosomes on seeds: convergent adaptations for burial by ants. Functional Ecology 6:642-648.
[106] . Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the City of Malibu. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024.
[107] Ibid, and Ecological Consequences of Artificial Night Lighting, Conference, February 23-24, 2002, UCLA Los Angeles, California.

e. Summary of Findings

The Commission finds that the Santa Monica Mountains Mediterranean Ecosystem, which includes the undeveloped native habitats of the City of Malibu, is rare and especially valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. The undeveloped native habitats within the City of Malibu that are discussed above are ESHA because of their valuable roles in that ecosystem, including providing a critical mosaic of habitats required by many species of birds, mammals and other groups of wildlife, providing the opportunity for unrestricted wildlife movement among habitats, supporting populations of rare species, and preventing the erosion of steep slopes and thereby protecting riparian corridors, streams and, ultimately, shallow marine waters.

The importance of Malibu's native habitats was emphasized nearly 20 years ago by the California Department of Fish and Game[108]. Commenting on a Draft Land Use Plan, the Regional Manager wrote that, "It is essential that large areas of land be reclassified to reflect their true status as ESHAs. One of the major needs of the Malibu LUP is that it should provide protection for entire drainages and not just stream bottoms." These conclusions were supported by the following observations:

> "It is a fact that many of the wildlife species of the Santa Monica Mountains, such as mountain lion, deer, and raccoon, have established access routes through the mountains. They often travel to and from riparian zones and development such as high density residential may adversely affect a wildlife corridor.
>
> Most animal species that exist in riparian areas will, as part of their life histories, also be found in other habitat types, including chapparal (sic) or grassland. For example, hawks nest and roost in riparian areas, but are dependent on large open areas for foraging. For the survival of many species, particularly those high on the food chain, survival will depend upon the presence of such areas. Such areas in the Santa Monica Mountains include grassland and coastal sage scrub communities, which have been documented in the SEA studies as supporting a wide diversity of plant and animal life."

The importance of the Santa Monica Mountains Mediterranean Ecosystem is also recognized in a recent Significant Ecological Area (SEA) update study[109]. Significant Ecological Areas are designated by the County of Los Angeles in order to preserve biotic diversity. In the 2000 study, this objective was expanded, "...to include the future sustainability of this diversity through the application of more current practices in conservation planning, primarily by consolidation into larger interconnected SEAs." The following table presents the SEA criteria and summarizes the ecological characteristics that meet those criteria in the Santa Monica Mountains.

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[108] Letter from F. A. Worthley, Jr. (CDFG) to N. Lucast (CCC) re Land Use Plan for Malibu dated March 22, 1983.

[109] PCR Services Corp. 2000. Los Angeles County Significant Ecological Area Update Study 2000 Background Report. A report to the L.A. County Department of Regional Planning dated November 2000.

Each of the SEA criteria directly correspond to one or more of the ESHA criteria contained in the Coastal Act definition (Rarity of species or habitat – SEA criteria A, B, C; Special nature of species or habitat – SEA criteria B, C, E, F; Habitat that performs an especially valuable role in the ecosystem – SEA criterion D). It is therefore not surprising that the SEA boundary generally corresponds to the large blocks of relatively undisturbed coastal sage scrub, chaparral and riparian habitat mapped as ESHA (Exhibit 5).

Both the early analysis by the Department of Fish and Game and the more recent SEA analysis are consonant with the ESHA findings of the commission. Additional support is provided by the letters from agency and academic biologists contained in the Letters Received section.

Criteria Analysis of the proposed Santa Monica Mountains SEA[110]

Criterion	Status	Justification
A) The habitat of core populations of endangered or threatened plant or animal species.	Criterion Met	The proposed SEA includes: core habitat of the federally endangered Braunton's milk-vetch, Lyon's pentachaeta, Southern California steelhead, and tidewater goby and federally threatened Santa Monica Mountains dudleya and marcescent dudleya.
B) On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Criterion Met	Upper La Sierra Canyon contains an unusually rich and diverse stand of canyon flora including marcescent dudleya, creek dogwood, and many unusually large specimens of other rare plant species; Malibu Lagoon is the only natural lagoon between Point Mugu in Ventura County and Anaheim Bay in Orange County; Malibu Canyon contains a unique mix of floral species uncommon in the region such as black cottonwood and leather leaf ash as well as a regionally unique mixture of inland and coastal species; regionally rare volcanic rock formations create unique communities where they occur.
C) Within Los Angeles County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Criterion Met	Malibu Lagoon is the only natural lagoon in Los Angeles County; upper La Sierra Canyon contains an unusually rich and diverse stand of canyon flora including marcescent dudleya, creek dogwood, and many unusually large specimens of other rare plant species; and Malibu Canyon contains a regionally unique mix of floral species uncommon in the County such as black cottonwood and leather leaf ash, as well as a unique mix of inland and coastal species.
D) Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, or migrating grounds and is limited in availability either regionally or in Los Angeles County.	Criterion Met	The Malibu Lagoon and the upstream riparian woodland in Malibu Creek is an important migrating bird refuge with over 200 species recorded. Tuna and Pena Canyons are an important area to migratory birds due to their combined qualities of healthy vegetation, riparian woodland, surface moisture, undeveloped land, and an unobstructed opening to the coast. The SEA also contains habitat linkages between large open space areas within the SEA as well between areas outside the SEA, such as the Simi Hills and the western extent of the Santa Monica Mountains in Ventura County, which are crucial in maintaining regional plant and animal population health and viability.
E) Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Criterion Met	The proposed SEA includes: a myriad of unique and pristine natural areas important for nature study and scientific research; the range extremes of many species such as the California juniper, linear leaved goldenbush, Calochortus venustus, and valley oak; and disjunct and unique populations of island mountain-mahogany, lyre snake, mountain quail, hirsute rain-beetle, and the Jerusalem cricket.

[110] PCR Services Corp., Frank Hovore & Assoc. and FORMA Systems. 2000. Biological resources assessment of the Proposed Santa Monica Mountains Significant Ecological Area. A report to the Los Angeles County Department of Regional Planning dated November 2000. Pages viii & ix.

Criterion	Status	Justification
F) Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in Los Angeles County.	Criterion Met	Zuma Canyon is one of the last major drainages in the Santa Monica Mountains with a year-round stream that supports a rich riparian community, it remains in an undeveloped state; Cold Creek includes an excellent example of an undisturbed natural sandstone basin with springs and a perennial stream; Tuna and Pena Canyons are the last drainages in the central and eastern Santa Monica Mountains that have not sustained development either in the watershed, or between the canyon mouth and the coast; Palo Coma and Chesebro Canyons support one of the last examples of an oak woodland savannah of any significant size in Los Angeles County; Temescal, Rustic, and Sullivan Canyons represent contiguous, self-contained watersheds that are large enough to support representative samples of native flora and fauna; the area surrounding Encino Reservoir supports the best undisturbed stand of an inland chaparral, coastal sage scrub, and streamside vegetation remaining on the inland slope of the Santa Monica Mountains.

5. Environmentally Sensitive Habitat Mapping

a. Mapping ESHA

In order to facilitate planning, maps were created which depict the approximate location and boundaries of ESHA. The maps are not intended to definitively assign the ESHA designation to individual parcels. Conversely, there may be areas that are not mapped that are ESHA. These maps will always be subject to revision, refinement and small-scale adjustments, and site-specific ESHA determinations may be required in particular cases. However, as a result of input from the public and the City of Malibu and repeated field checks by staff, the maps are accurate for planning purposes. The following discussion summarizes the methods and protocols used in the mapping process.

Within the City of Malibu, most of the ESHA areas are coastal sage scrub and riparian woodland interspersed with small patches of ceanothus and chamise chaparral at higher elevations. Existing legal development, graded or disked areas, isolated areas that have been converted to non-native vegetation, and those portions of riparian corridors that have been so altered and degraded as to lose most habitat value were not considered ESHA. For instance, there are several canyons on Point Dume (Winter Canyon and two unnamed canyons) that are not designated as ESHA. While these canyons still retain their function as wildlife corridors and do contain areas of riparian vegetation, they have been substantially degraded by past development and the introduction of non-native plant species.

The ESHA areas were mapped by analyzing aerial photographs and conducting field surveys. The mapping was an iterative process entailing identification of habitats on aerial photographs and verifying identifications with site visits. Aerial photographs from 1997 were enlarged to a scale of approximately 1 inch to 480 feet. At this scale individual shrubs in coastal sage scrub were clearly visible and vegetated and cleared areas could be easily identified. The original photographs were USGS digital orthophoto quarter quadrangles.

Most riparian areas were mapped as ESHA unless they were known to be severely degraded and to have low habitat value. Heavily degraded habitats dominated by non-native grassland and invasive plants were generally not mapped as ESHA. There were some exceptions to the latter rule in riparian corridors that were considered sensitive because of their important role in ecological processes and the connectivity that they provide.

Based on the aerial photographs and field data, the boundaries of ESHA were drawn on large-scale maps. Most of the ESHA areas included coastal sage scrub and unaltered riparian corridors. A staff ecologist and a botanical consultant with extensive experience in the Santa Monica Mountains conducted this work and were assisted by two coastal analysts with over ten years experience in Malibu. The mapping was confined to the City of Malibu boundary. Particular problem sites and questions were noted on the first review of the maps. These areas were subsequently visited to answer questions and make final determinations. From May through August of 2001, 7 days were spent in the field by four commission staff and the botanical consultant, and 59 spatially referenced sites were examined plus some others that were not georeferenced (Exhibit 6).

After the maps designating ESHA areas were completed, they were sent to the Commission's GIS/Mapping section to be digitized. Following this, the mapped ESHA areas on similar sized printouts were checked for obvious errors and returned again to the mapping section for final revision and completion of the ESHA map. The resultant map was compared to the 1993 National Park Service (NPS) Vegetation Map. Areas excluded from ESHA designation matched closely with areas designated "developed" by NPS. With allowance for additional development since the NPS maps were drawn in 1993, this provided an independent check on the map accuracy. These maps were presented at the January 2002 Coastal Commission Hearing.

After the preliminary maps were drawn, 2001 aerial photography for Malibu became available. The earlier maps were then revised, using the recent photography. This resulted in the removal of some 23 small habitat fragments either that had been developed in the interim, or that were very isolated and surrounded by development.

At and after the January hearing, members of the public and City staff indicated that there were errors in the maps, generally in the form of developed or disked areas being included in areas designated ESHA. In addition, Commission staff noted some

degraded stream corridors in the Point Dume area that appeared to be misclassified as ESHA. Several canyons on Point Dume (Winter Canyon and two unnamed canyons) are not designated ESHA on the final ESHA maps because they have been substantially degraded by past development and the introduction of non-native plant species. The City staff spent several days in the field identifying areas that they felt were incorrectly mapped and provided that information to Commission staff. These and other areas were visited by Commission staff ecologists with City staff on July 23 and 25, 2002. Thirty-nine sites were examined. The City's recommendations for these sites were communicated in a letter dated July 26, 2002. A map of the sites visited, the City's recommendations, and Commission staff's determinations are presented in Exhibit 7. The final ESHA maps are presented as Exhibit 8.

The ESHA map contains many areas that are unlikely ever to be developed because of the nature of ownership or because of the mountainous topography. In order to show those ESHA areas that are most likely to be subject to development, open space areas in public ownership and areas with slopes greater than 40% were removed. These maps are compared to the unaltered ESHA maps in Exhibit 9. It should be noted that while about half (49.2%) of the land area in Malibu is sensitive habitat, most is already in protected status as public open space (federal, state, county and city parkland, designated open space, conservation areas and beaches), or it is not developable because of slopes greater than 40%. After protected land and steep slope areas have been removed, only about 14% of the remaining developable land would be considered ESHA as indicated in the Table below. The reason that most of the designated ESHA resides in protected land or on steep slopes is simply because these are the areas that have not been developed, and so their habitat values have been preserved. Of the total area in Malibu, a relatively small amount of coastal sage scrub (12.0%) and chaparral (2.7%) is on land that could potentially be developed as the following table illustrates.

Areas in acres and percent within Malibu in various categories of habitats and their designations. Figures are based on a total area in Malibu of 12,679 acres.

	Public Open Space or Slopes >40%	NOT Public Open Space or Slopes >40%	TOTAL
ESHA	4256 33.5%	1771 14.0%	6027 47.5%
Coastal Sage Scrub	2808 22.2%	1525 12.0%	4333 34.2%
Chaparral	919 7.2%	340 2.7%	1259 9.9%

b. LUP ESHA and Marine Resources Map and Policies

The Coastal Act requires that areas meeting the definition of ESHA be protected, as provided by Section 30240. One way that the LUP provides for the protection of ESHA is by generally depicting the location of known resources on the LUP ESHA and Marine Resources Map. However, if the LUP policies protecting ESHA were applied only to the areas shown on the map, there would not be complete assurance that all areas meeting the definition of ESHA would be protected as required by the Coastal Act. The LUP ESHA Map is a valuable source of information on the presence of sensitive resources. The map is a useful tool for identifying many of the habitat areas that meet the definition of ESHA. However, the map is not the end of the story.

The LUP ESHA Map, as described above, was developed using available information, including field visits. The map accurately depicts the location of ESHA areas according to the method used. However, it would be necessary to conduct in-depth site-specific biological surveys of the entire City in order to map ESHA down to a site by site level. Conducting such surveys would not only be time and cost prohibitive, but also an inefficient method to determine location of ESHA. Site-specific biological surveys of the entire City would still only provide an accurate depiction of ESHA at one point in time. As described below, circumstances change over time. It is more efficient to carry out a site-specific biological analysis of each site at the time that development is proposed.

Additionally, the resource areas that are considered ESHA are not static over time. Development across the state results in the loss of natural areas and fragmentation of habitat such that, in the future, certain habitats and/or plant and animal species may become more rare and their protection more critical. Additionally, scientific study may reveal new information and understanding of the existence, rarity, or importance of certain habitats and species.

Therefore, it is clear that the LUP ESHA Map, while a valuable tool in assessing the location of ESHA subject to protection under the policies of the LUP, must be used in conjunction with site specific information provided through a detailed biological study conducted at the time that development is proposed to determine the presence of ESHA on the ground. Policy 3.4 provides that any area not previously designated on the ESHA Map that meets the definition of ESHA shall be protected as ESHA. Policy 3.4 provides that the following areas will be considered ESHA, unless there is compelling site-specific evidence to the contrary:

- Any habitat area that is rare or especially valuable from a local, regional, or statewide basis
- Areas that contribute to the viability of plant or animal species designated as rare, threatened, or endangered under State or Federal law

- Areas that contribute to the viability of plant or animal species designated as Fully Protected or Species of Special Concern under State law or regulations
- Areas that contribute to the viability of plant species for which there is compelling evidence of rarity, such as those designated "1b" (Rare or endangered in California and elsewhere) or "2" (rare, threatened, or endangered in California but more common elsewhere) by the California Native Plant Society.

It is also clear that the LUP ESHA Map must be updated periodically to reflect current information. Policy 3.5 requires that the map be reviewed every five years in cooperation with the ERB and the resource agencies (including but not limited to the California Department of Fish and Game, Resource Conservation District of the Santa Monica Mountains, California Department of Parks and Recreation, U. S. Fish and Wildlife Service, and National Marine Fisheries Service) to determine if modifications are necessary. The map will be updated to reflect any applicable new facts, including information on rare, threatened or endangered species. Areas subject to habitat restoration projects will also be considered for designation as ESHA. Revisions to the ESHA Map will be treated as an LCP amendment.

Policies 3.6-3.7 address the circumstance where an area previously mapped as ESHA is found to not contain habitat that meets the definition of ESHA, based on a site-specific biological study. Any area mapped as ESHA cannot be deprived of protection as ESHA on the basis that habitat has been illegally removed, degraded, or species that are rare or especially valuable because of their nature or role in an ecosystem have been eliminated. In such a case, the ESHA policies would still apply, including a requirement to restore habitat. Policy 3.7 provides that if the decision-making body of the City (Planning Director, Planning Commission, or City Council), in consultation with the City ERB, finds that an area previously mapped as ESHA does not meet the definition of ESHA, a modification will be made to the LUP ESHA Map as part of a map update. The area determined to not be ESHA will not be subject to the ESHA protection provisions of the LCP and development may be allowed on the property (consistent with all other LCP requirements), even if the map has not yet been amended.

The Commission finds that the depiction of known resources meeting the definition of ESHA on the LUP ESHA Map, in conjunction with the requirements for site-specific study, and map updates, as required by the ESHA designation policies of the LUP (Policies 3.1, 3.3-3.7) meets the requirements of and is in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

c. LIP ESHA Overlay Map and other Provisions

The Malibu Local Implementation Plan includes an Environmentally Sensitive Habitat Area Overlay Ordinance (Chapter 4) that implements the ESHA policies of the Land Use Plan. The provisions (described below) of the ESHA Overlay apply to those areas that are designated as ESHA on the LIP ESHA Overlay Map. The designations shown

on the LIP ESHA Overlay Map match those shown on the LUP ESHA Map. In addition to the map, there are provisions (Section 4.3) that state that any areas not designated on the ESHA Overlay Map that meets the definition of ESHA (Chapter 2 of the LIP) is ESHA and subject to all the protection provided for ESHA in the LCP, including the provisions of Chapter 4 of the LIP.

The LIP requires the City to determine the extent of ESHA on the ground in its consideration of permit applications, based on the ESHA Overlay Map as well as site-specific information. As described below, the LIP requires a site-specific biological study for sites that are designated as ESHA, as well as those where an initial inventory of plant and animal species indicate the presence or potential for sensitive species or habitat. Section 4.3 of the LIP details the habitat areas that should be considered to be ESHA whether or not they are designated on the map. These areas include: any habitat area that is rare or especially valuable from a local, regional, or statewide basis; areas that contribute to the viability of plant or animal species designated as rare, threatened, or endangered under State or Federal law, or are designated as Fully Protected or Species of Special Concern under State law or regulations; and areas that contribute to the viability of plant species for which there is compelling evidence of rarity. Further, Section 4.3 details the process for the City to consider areas designated as ESHA that do not contain habitat that meets the definition of ESHA. Finally, the LIP requires the City to make findings in coastal development permit actions regarding the physical extent of habitat meeting the definition of ESHA on the site, based on policies and provisions of the LCP, the applicant's site-specific biological study, any other studies or independent evidence, and review by the City biologist and the environmental review board.

The Commission finds that the Malibu LIP, including the ESHA Overlay Map conforms with and is and adequate to carry out the LUP ESHA Map and the ESHA designation policies of the Land Use Plan.

6. Protection of Environmentally Sensitive Habitat Areas

The Coastal Act requires the protection of environmentally sensitive habitat areas against any significant disruption of habitat values. No development may be permitted within ESHA, except for uses that are dependent on the resource. Section 30240 of the Coastal Act further requires that development adjacent to ESHA is sited and designed to prevent impacts that would significantly degrade ESHA and to be compatible with the continuance of the habitat areas. Section 30240 of the Coastal Act also requires that development adjacent to parks and recreation areas must be sited and designed to prevent impacts.

Siting and designing new development such that an adequate buffer is provided between the outer edge of the ESHA and development will minimize adverse impacts to these habitats. Providing a significant distance between new development and ESHA

will ensure that removal or thinning of native vegetation for fuel modification will not be required to provide fire protection. Additionally, the transitional "ecotones" between different habitat types are particularly valuable areas with a higher diversity of plants and animals. The provision of adequate buffers around ESHA protects ecotones. Natural vegetation buffers also protect riparian habitats by providing area for infiltration of runoff, minimizing erosion and sedimentation. Finally, natural vegetation buffers minimize the spread of invasive exotic vegetation that tends to supplant native species, from developed areas into sensitive resource areas

a. Land Use Plan Policies

The LUP policies establish that areas determined to meet the definition of ESHA, as described above, will be protected against significant disruption of habitat values and only resource dependent uses may be permitted within ESHA. Residential, commercial, or institutional uses do not require a location within or adjacent to ESHA in order to function and are therefore not considered resource dependent uses. Thus, these uses may not be developed within ESHA, except in very limited circumstances where there is no other feasible alternative that can avoid a taking of property, as discussed below (Section 7).

New development must be sited and designed to avoid impacts to ESHA. In the design and review of new development, alternative projects must be identified and analyzed. If there is no feasible alternative that can avoid or eliminate all significant impacts to resources, then the alternative that results in the fewest or least significant impacts should be selected. Any impacts that cannot be avoided through the implementation of siting or design alternatives must be fully mitigated, with priority given to on-site mitigation. Off-site mitigation measures shall only be approved when it is not feasible to mitigate impacts on the project site or where off-site mitigation is found to be more protective of resources in the context of a Natural Community Conservation Plan (NCCP) developed for Malibu/Santa Monica Mountains area that is certified by the Commission as an amendment to the LCP. The development of an NCCP is discussed in greater detail in Section 8 of this report. In no case can mitigation measures be substituted for implementation of the project alternative that would avoid impacts to ESHA.

Mitigation measures, including habitat restoration, and habitat enhancement need to be monitored for at least five years, pursuant to Policy 3.15. The biologist or resource specialist must design specific mitigation objectives and performance standards so that the success of the restoration or enhancement can be measured over time and mid-course changes can be made to ensure that the mitigation will work.

The LUP policies establish the protection of areas adjacent to ESHA and adjacent to parklands through the provision of buffers. Natural vegetation buffer areas must be provided around ESHA or parkland that are of sufficient size to prevent impacts that

would significantly degrade these areas, as required by Section 30240 of the Coastal Act. All buffers will be a minimum of 100 feet in width and no development, including fuel modification, is permitted within required buffer areas, except for the canyons on Point Dume, coastal sage scrub ESHA, and chaparral ESHA, as described below. The required buffer areas will extend from the outer edge of the ESHA. In the case of streams and riparian ESHA, the buffer will extend from the outer edge of the canopy of riparian vegetation, and from the outer edge of the tree canopy for oak or other native tree woodland ESHA. Similarly, the buffer for bluff ESHA will extend from the edge of the blufftop. Additionally, as provided by Policy 3.1 of the LUP, streams and wetlands are protected by the policies of the LCP discussed in Sections D9 and D15 below even if they are not designated as ESHA.

In the case of canyons on Point Dume, the LUP requires (Policy 3.35) that all new development is designed to avoid encroachment on slopes of 25 percent or steeper. The steeper portions of the canyon slope will function as a buffer to development, minimizing human intrusion, and protecting stream and riparian habitats by providing area for infiltration of runoff, and minimizing erosion and sedimentation. However, it is recognized that given the existing pattern of development and lot configurations, it is not, in most cases, possible to provide a buffer where no fuel modification will occur. Even with development designed to avoid encroachment on slopes of 25 percent or greater, it is likely that at least some fuel modification measures will be required on canyon slopes. However, the complete vegetation clearance required in the fuel modification zone nearest structures will be located above or near the top of the canyon slope. Additionally, some distance will be provided for runoff infiltration and separation of human intrusions such as noise and night lighting. In this way, impacts to the stream and riparian habitat will be minimized. With regard to coastal sage scrub and chaparral ESHA, the LUP (Policy 3.27) requires a buffer of sufficient width to ensure that no required fuel modification will extend into the ESHA and that no structures will be within 100 feet of the outer edge of the plants that comprise the applicable habitat type.

Variances or modifications to buffer, or other sensitive resource protection standards may not be granted for new development, except where there is no other feasible alternative for siting the development and the approved development is consistent with the limits permitted pursuant to Policies 3.10-3.13. Modifications to other required development standards that are unrelated to resource protection, such as street setbacks, shall be permitted where it is necessary in order to avoid or minimize impacts to ESHA. The LUP policies establish that the protection of ESHA and public access takes priority over other development policies or standards. Where there is any conflict between ESHA protection standards and other development standards, the conflict will be resolved by applying those that are most protective of ESHA resources or public access.

Applications for development within or adjacent to ESHA, or other areas containing ESHA, identified through a biological study, will be subject to the review of the City Biologist and the Environmental Review Board (ERB). The ERB is an existing review

body established under the City's General Plan that reviews development proposals and provides recommendations to the City's decision-making bodies. City staff has suggested language regarding the required expertise of the appointed members of the ERB. This language has been incorporated into LUP Policy 3.38. This policy states that the ERB will be comprised of qualified professionals with expertise in biological resources, geology, architecture or civil engineering, and landscape architecture. The LUP policies provide for the ERB, in consultation with the City Biologist, to review development proposed within or adjacent to ESHA and consider the potential impacts of the project on ESHA, define the least environmentally damaging alternative, and recommend modifications or mitigation measures to avoid or minimize impacts. The ERB shall report its recommendations to the applicable decision making body (Planning Director, Planning Commission, or City Council). The decision making body will make findings regarding the final project's conformity with the recommendations of the ERB.

In order to assess sensitive resources present on a project site, siting and design alternatives to avoid and minimize environmental impacts, and potential mitigation measures to mitigate unavoidable impacts, Policy 3.36 requires that development applications on sites containing or adjacent to ESHA include a detailed biological study of the project site. Applications for new development that is not located within or adjacent to identified ESHA need to include an inventory of the plant and animal species known or expected to occur on the project site. If the City determines that the initial biological inventory indicates the presence or potential for sensitive species or habitat, a full, detailed biological survey, will be required. The detailed study will provide site-specific information to the City Biologist and the Environmental Review Board for the determination of the presence of ESHA on the proposed project site.

The Commission finds that the ESHA protection policies of the LUP (Policies 3.8, 3.14-3.22, 3.23-3.31, and 3.36-3.41), by requiring new development to avoid and/or minimize impacts to ESHA, provide adequate buffers, mitigate impacts that cannot be avoided through the implementation of siting and design alternatives, and by requiring review of projects within or adjacent to ESHA by the environmental review board, will ensure that ESHA is protected against any significant disruption of habitat values. Therefore, the Commission finds that the ESHA protection policies of the LUP meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

The Environmentally Sensitive Habitat Overlay Ordinance (Chapter 4) of the Malibu LIP implements the ESHA protection policies of the LUP. Section 4.42 details the information to be included in the biological study required for coastal development permit applications for development within or adjacent to ESHA, including additional information for sites containing wetland habitat. Section 4.6 of the LIP sets forth development standards, including buffer requirements for different habitats, including

streams, wetlands, woodland ESHA, coastal bluff ESHA, coastal sage scrub ESHA, chaparral ESHA, and other types of ESHA. This section also addresses variances for ESHA protection standards. Section 4.8 of the LIP addresses mitigation measures for impacts to ESHA, including monitoring requirements. Section 13.26 of the Coastal Development Permit Ordinance establishes the process for variance requests. Chapter 13 also requires an inventory of plant and animal species present on the project site, or those known or expected to be present on the project site at other times of the year, prepared by a biologist or resource expert. This inventory is required as an application submittal item on all coastal development permit applications. Finally, Chapter 13 also requires ERB review of development within or adjacent to ESHA [Section 13.7(C)].

The Commission finds that the provisions of the Malibu LIP conform with and are adequate to carry out the LUP ESHA Protection Policies (Policies 3.8, 3.14-3.22, 3.23-3.31, and 3.36-3.41).

7. Economically Viable Use

There may be cases where the majority or the entirety of a legal parcel contains habitat that is environmentally sensitive habitat area. Under Section 30240 of the Coastal act, no development, with the exception of a resource-dependent use, could be permitted on such a site. However, Section 30240 must be applied in concert with other Coastal Act requirements, particularly Section 30010. This section states that:

> The Legislature hereby finds and declares that this division is not intended, and shall not be construed as authorizing the commission, port governing body, or local government acting pursuant to this division to exercise their power to grant or deny a permit in a manner which will take or damage private property for public use, without the payment of just compensation therefor. This section is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.

Thus if strict application of the ESHA protection requirements of Section 30240 would cause a taking of property, then the policy must be applied in a manner that would avoid this result. The U.S. Supreme Court has held that, in some situations, a permit decision may constitute a categorical or "per se" taking under *Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1005. According to *Lucas*, if a permit decision denies all economically viable use of property by rendering it "valueless", the decision constitutes a taking unless the denial of all economic use was permitted by a "background principle" of state real property law. Background principles are those state law rules that inhere in the title to the property sold to be developed and that would preclude the proposed use, such as the common law nuisance doctrine.

Second, if the permit decision does not constitute a taking under Lucas, a court may consider whether the permit decision would constitute a taking under the ad hoc inquiry stated in cases such as *Penn Central Transp. Co. v. New York City* (1978) 438 U. S. 104, 123-125. This inquiry generally requires an examination into factors such as the

character of the government action, its economic impact, and its interference with reasonable, investment-backed expectations, as well as any background principles of property law identified in *Lucas* that would allow prohibition of the proposed use.

a. Land Use Plan Policies

If the application of the ESHA policies and provisions would result in taking private property, then a use that is not consistent with the ESHA policies will be permitted, provided such use is consistent with all other applicable policies and is the minimum amount of development necessary to avoid a taking. LUP Policies 3.10 through 3.13 sets forth the process and parameters for approval of such a use. An application for development of a use that is not resource-dependent within ESHA, or that is not consistent with all ESHA provisions, must first demonstrate the extent of ESHA on the project site (Policy 3.11).

Policy 3.12 establishes the allowable development area on parcels where all feasible building sites are ESHA or ESHA buffer. The development area in such cases may not exceed 10,000 square feet or 25 percent of the parcel size, whichever is less. In the few potential instances where development would be proposed on a parcel larger than 40-acres, the development area may be increased by 500 sq. ft. for each additional acre over 40-acres to a maximum of 1-acre of development area (43,560 sq. ft.). The maximum development area must include the building pad, all graded slopes (if grading is permitted), and any permitted structures. If it is demonstrated that it is not feasible from an engineering standpoint to include all graded slopes within the development area, then the area of the graded slopes may be excluded. Development must be sited and designed to avoid destruction of riparian habitat. No development is allowed in wetlands unless it is a use allowed under Section 30233 of the Coastal Act and the provisions of the LCP. The maximum development area will be reduced, or development shall be denied, if necessary to avoid a nuisance (as that term is defined in California Civil Code Section 3479). Any impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives must be mitigated.

The Commission finds that this will provide private owners of vacant parcels in Malibu that contain ESHA an economically viable use of the property. This determination is based on consideration of the following factors: the long-standing residential zoning applicable to such parcels, the fairly large size of vacant lots in the City, the presence of existing residential development consistent with this scale in the area, including numerous residences approved by the Coastal Commission in areas with the same type of habitat, and property values that reflect the expectation of residential use.

As provided in LUP policies 3.67 through 3.73 (and as described in detail in Section 12 below), new agricultural uses or confined animal facilities are prohibited within or adjacent to ESHA, except within coastal sage scrub or chaparral ESHA in conjunction with development approved to avoid a taking, pursuant to Policy 3.10. Such

development may include limited crop, orchard, or vineyard use within the irrigated fuel modification area (Zones A and/or B, if required) required around the approved structure(s), if the agricultural use would not be located on slopes greater than 3:1, would not result in any increase to the required fuel modification area, and does not increase the possibility of in-stream siltation or pollution from herbicides or pesticides. Development approved pursuant to Policy 3.10 within coastal sage scrub or chaparral may include accessory confined animal structures within the approved development area and within the fuel modification area (Zones A, B, and/or C, if required) required around the structure(s) approved within the development area, if these facilities would not be located on slopes over 4:1, would not require additional grading (except for minimal grading for foundations), and would not result in any expansion to the required fuel modification area.

Policy 3.54 provides that fencing may be permitted within coastal sage scrub or chaparral ESHA, if necessary for security, only around the clustered development area. Finally, Policy 3.13 allows for an increase in the total development area for projects whereby two or more parcels are merged and one consolidated development area is provided with one access drive. This gives an incentive to cluster development and merge lots.

The Commission finds that the LUP policies regarding economically viable use meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3, as well as other provisions, including Section 30010 of the Coastal Act.

b. Local Implementation Plan Provisions

Section 4.7 of the Malibu LIP details the development standards for the approval of a use other than one that is permitted in the ESHA Overlay. Where all feasible building sites are ESHA or ESHA buffer, the City may only permit development as allowed under Section 4.7 in order to provide the owner with an economically viable use of the property. Standards are provided for the approval of a development area, fencing, agricultural uses, and confined animal facilities.

The LIP allows a development area of 10,000 square feet or 25 percent of the parcel size, whichever is less. For parcels over 40-acres in size, the development area may be increased by 500 sq. ft. for each additional acre over 40 acres in parcel size to a maximum of 1-acre (43,560 sq. ft.). As provided in Chapter 2 (Definitions) of the LIP, the development area is the approved portion of the project site that is developed. This area must include the building pad, all graded slopes, all structures and parking areas. The area of one access driveway and one hammerhead safety turnaround may be excluded from the development area square footage.

The LIP also allows limited fencing, agricultural uses, and confined animal facilities to be approved in conjunction with a residential use permitted only in coastal sage scrub or chaparral ESHA. Fencing may be permitted, if necessary for security, only around the

clustered development area. Crop, orchard, or vineyard uses may be permitted only within the irrigated fuel modification area (Zones A and B, if required) for the approved structures, so long as the use is not located on slopes over 3:1, doesn't result in increased fuel modification, and does not increase the possibility of in-stream siltation or pollution from herbicides or pesticides. Development permitted within coastal sage scrub or chaparral under the provisions of Section 4.7 of the LIP may include accessory confined animal structures within the required fuel modification area for structures approved within the development area, only if the structures are not located on slopes greater than 4:1, do not require additional grading other than minimal grading for foundations, is constructed from non-flammable materials, and do not result in any expansion to the fuel modification area.

Finally, the LIP allows for an increase in the total development area for projects whereby two or more parcels are merged and one consolidated development area is provided with one access drive. This provision gives an incentive to cluster development and merge lots.

The Commission finds that the provisions of the Malibu LIP conform with and are adequate to carry out the LUP Policies 3.10-3.13, 3.54, 3.67-3.68, and 3.70 regarding economically viable uses.

8. Natural Community Conservation Planning Process

The Local Coastal Program planning process under the California Coastal Act and the Natural Community Conservation Planning Process (NCCP Act, SB 107: Fish and Game Code section 2800 et seq.) can be complimentary and effective tools for protecting environmentally sensitive habitats and concentrating development.

Chapter 3 of the Coastal Act includes strong policies for the protection of coastal resources. Section 30240 affords special protection for environmentally sensitive habitat areas (ESHA) in the coastal zone. The Commission identified, described, and generally mapped ESHA in the City of Malibu based on the substantial scientific evidence documented in the Commission's findings and supporting reports, studies, and other information set forth in the record and based on the criteria in the Coastal Act. The City of Malibu LCP includes strong LUP policies and implementing ordinances to protect environmentally sensitive habitat areas consistent with section 30240 of the Coastal Act. The Commission recognizes that requirements of law may result in some development in ESHA areas necessary to avoid a taking of private property. LUP policy 3.10 could result in some fragmentation and loss of ESHA areas. The Commission also recognizes that if the City of Malibu and other key agencies and property owners choose to participate in a NCCP process for the Santa Monica Mountains that a NCCP plan could be developed that could further enhance the protection of environmentally sensitive habitat areas by establishing preserves and reducing potential fragmentation and improving the functionality of ESHA.

The Commission strongly encourages the City of Malibu to consider initiating a Natural Communities Conservation Planning Program and to work cooperatively with the County of Los Angeles to develop an effective Natural Communities Conservation Plan (NCCP) for the Santa Monica Mountains. The NCCP process is voluntary on the part of the City and is not a requirement of the September 2002 Coastal Commission approval of the City of Malibu LCP. A comprehensive NCCP planning effort would identify areas for habitat preservation and identify areas that are in proximity to existing development where development could occur in a manner that provides improved functionality of conserved habitats by, among other things, minimizing ESHA fragmentation. With the participation of the California Department of Fish and Game, the California Department of Parks and Recreation, the National Park Service, USFWS, the City of Malibu, the County of Los Angeles, the Coastal Commission, other agencies, public interest groups, and property owners in such a planning effort, adoption of a NCCP incorporated into the LCP through the LCP amendment process could result in a refinement of zoning maps and areas identified for protection in perpetuity.

Through the use of transfer of development credits and other mitigation mechanisms to direct development into the least sensitive areas, more effective protection could be afforded to coastal resources through the NCCP than may be accomplished through the LCP alone. These two processes have the potential, when combined, to result in a more effective natural resource protective outcome than application of the LCP alone.

If the City chooses to initiate a NCCP process to achieve this, the City should submit a LCP amendment to integrate a collaborative NCCP into the Malibu LCP that identifies areas that will be preserved and areas in which habitat protection will be limited. The amendment should also designate the implementation actions that will ensure that these protected areas will be preserved in perpetuity. It is likely that some contribution to implementing the preserve would be required of applicants for development permits in ESHA as mitigation for their individual impacts to ESHA. While many of these areas may be designated ESHA on the current ESHA maps, the Coastal Commission has the authority to apply Section 30007.5 of the Coastal Act to resolve conflicts between policies of the Act and redesignate the ESHA consistent with the NCCP as amended into the LCP. The application of this provision would allow for an analysis that shows that "concentrate (d) development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies", particularly in light of Coastal Act protections against taking of private property. The significant benefit of a multi-species, multi-party conservation planning process, such as is provided through NCCPs and HCPs, is that it provides a mechanism to preserve an ecological system as a whole, by redirecting constitutionally protected development potential to more suitable locations in the larger system.

If a NCCP is prepared in the future for the Santa Monica Mountains area that includes lands within the City of Malibu, it shall be submitted to the Coastal Commission for certification as an amendment to the LCP. Coastal Commission staff will actively

participate in the development of any proposed NCCP to ensure that the plan can be recommended to the Commission for approval. If a comprehensive NCCP is certified by the Commission as consistent with the Coastal Act through amendment to the City of Malibu LCP, the amendment will include revised ESHA maps and criteria as appropriate, which designate areas of ESHA where development can be allowed and areas that will continue to be protected and will be managed in perpetuity for their ecological resource values. If the Coastal Commission certifies a NCCP as an amendment to the City of Malibu Local Coastal Program, Malibu LCP ESHA maps and criteria will be consistent with the NCCP's reserve design.

9. Stream Protection

In addition to protection as ESHA under Section 30240 of the Coastal Act, streams and associated riparian habitat are protected under additional Coastal Act policies in order to maintain the biological productivity and quality of coastal waters. Section 30231 requires that natural vegetation buffer areas that protect riparian habitats be maintained, and that the alteration of natural streams be minimized. Notwithstanding the stream protection provisions, the Coastal Act recognizes that in a few limited circumstances, it may be necessary to alter a stream. Section 30236 limits channelizations, dams, or other substantial alterations of rivers and streams to only three purposes: necessary water supply projects; protection of existing structures in the floodplain where there is no feasible alternative; or improvement of fish and wildlife habitat.

Siting and designing new development such that an adequate buffer is provided between the outer edge of the canopy of riparian vegetation and development will minimize adverse impacts to these habitats. The buffer shall be measured from the outer edge of the canopy of riparian vegetation. Providing a significant distance between new development and riparian areas will ensure that removal or thinning of native vegetation for fuel modification will not be required to provide fire protection. Additionally, the transitional "ecotones" between different habitat types are particularly valuable areas with a higher diversity of plants and animals. The provision of adequate buffers around streams and riparian corridors protects the ecotone.

Natural vegetation buffers also protect riparian habitats by providing area for infiltration of runoff, minimizing erosion and sedimentation. Finally, buffers minimize the spread of invasive exotic vegetation that tend to supplant native species. The presence of surface or subsurface water throughout the year makes riparian areas especially susceptible to invasion by non-native species that can in many instances out compete native plants. Invasive plant species do not provide the same habitat values as natural riparian areas.

a. Land Use Plan Policies

The LUP policies provide for the prohibition of development within stream and riparian ESHA, except for resource dependent uses. Providing buffers as well as prohibiting the planting of invasive plant species in landscaping, as provided in LUP Policy 3.50 will reduce the risk of non-native species invading stream and riparian areas.

Policy 3.32 of the LUP prohibits the channelization or alteration of streams, except for necessary water supply projects; protection of existing structures in the floodplain where there is no other feasible alternative; or improvement of fish and wildlife habitat. Any alteration approved for one of these three purposes must minimize impacts to coastal resources, and include maximum feasible mitigation measures to mitigate for any unavoidable impacts. In the case of flood protection for existing development, bioengineering alternatives shall be preferred over concrete, riprap, or other hard structures.

To minimize future need for any stream alterations to protect structures from flood hazards, LUP Policy 4.9 prohibits new buildings in areas that are floodprone. Additionally, ESHA buffers around streams and riparian areas, described above, will serve to site new development a significant distance from any stream, providing protection from flooding. The LUP requires a buffer that is a minimum of 100 feet in width, extending from the outer edge of the canopy of riparian vegetation. An exception is provided by Policy 3.35 for streams on Point Dume, where development must be designed to avoid encroachment on slopes of 25 percent or greater in order to provide a stream buffer.

Further, the LUP (Policy 3.33) prohibits the alteration of streams for the purpose of road crossings, except where the alteration would not be substantial, there is no other feasible alternative to provide public access to public recreation areas or development on legal parcels that is sited outside riparian ESHA, and the alteration does not restrict movement of fish or other aquatic wildlife. Any other road crossing shall be bridged with required columns or abutments location outside the bed and banks of the stream. Shared bridges for multiple developments shall be used wherever feasible.

Finally, the LUP addresses specific issues relating to Malibu Creek. In addition to the wetland protection policies discussed below, the LUP provides parameters for any flood protection measures that may be proven necessary in the future along lower Malibu Creek in the Civic Center area. Any applications for such measures must include evidence that existing, permitted development is in danger from flood hazard, that alternatives for flood protection have been considered, that the proposed action is the least environmentally damaging alternative, and that any unavoidable impacts will be mitigated. The LUP also provides that if enlargement, replacement or improvements to the existing at grade crossing of Malibu Creek at Cross Creek Road are determined to

be necessary, alternative designs, including, but not limited to, a caisson-supported bridge, that minimize impacts to ESHA shall be considered. In any case, any new improvement to this crossing shall minimize impacts to the movement of fish or other aquatic wildlife to the maximum extent feasible.

The Commission finds that stream protection policies of the LUP (Policies 3.32-3.35) by limiting channelization or alteration of streams, requiring buffers and preservation of riparian habitat, and by establishing a preference for bioengineering solutions, will protect streams. Therefore, the Commission finds that the stream protection policies of the LUP meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

As described above, the Malibu LIP includes an ESHA Overlay Ordinance (Chapter 4) which addresses protection of ESHA, including streams and riparian areas. All ESHA protection provisions of the LIP apply to stream and riparian ESHA. Additionally, Section 4.5 of the LIP sets forth the limited uses that may be permitted in streams, consistent with all applicable provisions of the LCP. The LIP also requires that new development provide a buffer of no less than 100 feet from the outer edge of riparian vegetation, or from the outer edge of the stream bank where riparian vegetation is not present. An exception is provided by Section 4.6.1 of the LIP for streams on Point Dume, where development must be designed to avoid encroachment on slopes of 25 percent or greater in order to provide a stream buffer.

The Commission finds that that the Malibu LIP conforms with and is adequate to carry out the stream protection policies (Policies 3.32-3.35) of the Land Use Plan.

10. New Development

New development can adversely impact environmentally sensitive habitat areas through many means including, but not limited to, grading, landform alteration, vegetation clearance, erosion, sedimentation runoff, stream siltation, and reduced water percolation. Additionally, wildlife can be impacted by fencing that blocks migration and by artificial night lighting. In order to protect habitat values as required by Section 30240 of the Coastal Act, the Commission has found, in permit actions, that it is necessary to consider alternatives for siting and designing development in order to ensure that the alternative chosen is the one that minimizes impacts to ESHA.

a. Land Use Plan Policies

The LUP policies require that new development be sited and designed to minimize impacts to ESHA. Alternative locations should be considered for siting proposed development on the project site. The preferred location for development is the one that

can minimize grading and landform alteration, limit the removal of natural vegetation, and minimize the length of the approved access road or driveway. These siting and design measures will ensure that impacts from soil erosion, stream siltation, reduced water percolation, increased runoff on sensitive resources will be avoided and minimized, as required by the land and marine policies of the Coastal Act.

The LUP prohibits grading during the rainy season for any development that is located within or adjacent to ESHA, or that includes any grading on slopes over 4:1. In areas next to ESHA, particularly riparian and stream areas, on steep slopes, or in large grading projects, grading during the rainy season greatly increases the potential for erosion and sedimentation. In other areas where grading may be permitted to proceed during the rainy season, erosion control measures must be implemented before grading commences and maintained throughout grading operations until landscaping and the permanent drainage system is installed.

Graded and other disturbed areas must be landscaped or revegetated with primarily native, drought resistant plants at the completion of grading. Invasive plant species may not be used as they will supplant native plants and lead to the degradation of natural habitats. In order to ensure that erosion is minimized from graded or disturbed areas, landscaping must be sufficient to provide ninety percent coverage within a period of five years. An exception to this requirement is provided for landscaping or revegetation that is located within any fuel modification "thinning zone" (Zone C) that is required by the Los Angeles Fire Department as part of an approved fuel modification plan. Landscaping within this area is only required to provide sixty percent coverage within five years, consistent with the Fire Department's maximum coverage standard for Zone C. Landscaped or revegetated areas within or adjacent to ESHA must be monitored for success for at least five years. Additional plantings and other corrective measures may prove necessary to ensure that the coverage criteria are achieved.

New development shall include measures to restore disturbed or degraded habitat on the project site if feasible. Fencing must be limited. Within riparian, bluff, or dune ESHA, fencing is prohibited, except where necessary for public safety or habitat protection or restoration. Development that is approved within coastal sage scrub or chaparral ESHA pursuant to Policies 3.10-3.13, or adjacent to ESHA, must be located only around the approved development area and be designed to allow wildlife to pass through. This includes fencing that is open, not solid or chain-link. More open fencing types, such as split-rail allows wildlife to pass, while establishing the boundary of the development area and containing horses or other confined animals on the project site. The LUP requires exterior lighting to be limited in intensity, shielded, and directed away from ESHA in order to minimize impacts on wildlife.

The Commission finds that LUP policies 3.42-3.58 will ensure that new development is sited and designed to minimize grading, landform alteration, runoff, erosion, and sedimentation, which will minimize impacts to ESHA and marine resources Therefore,

the Commission finds that these policies of the LUP meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

The Local Implementation Plan implements the new development policies (Policies 3.42-3.58) of the Land Use Plan. Chapter 8 of the LIP regulates the total amount of grading and landform alteration, the design of grading projects, and provides seasonal restrictions on grading. Section 3.10 of the LIP requires the landscaping of graded or disturbed areas in order to minimize erosion and sedimentation. Required landscaping that is within ESHA or ESHA buffer must also be monitored for a period of at least five years to ensure success of the plantings. The ESHA Overlay Ordinance (Chapter 4 of the LIP) provides development standards for the siting and design of development. Section 4.6.2 details lighting standards and Section 4.6.3 limits fencing, both to minimize impacts on wildlife.

The Commission finds that the Malibu LIP conforms to and is adequate to carry out Policies 3.42-3.58 of the Land Use Plan.

11. Fuel Modification

Fuel modification is the removal or modification of combustible native or ornamental vegetation. It may include replacement with drought tolerant, fire resistant plants. The amount and location of required fuel modification would vary according to the fire history of the area, the amount and type of plant species on the site, topography, weather patterns, construction design, and siting of structures. There are typically three fuel modification zones applied by the Fire Department:

> Zone A (Setback Zone) is required to be a minimum of 20 feet beyond the edge of protected structures. In this area native vegetation is cleared and only ground cover, green lawn, and a limited number of ornamental plant species are allowed. This zone must be irrigated to maintain a high moisture content.
>
> Zone B (Irrigated Zone) is required to extend from the outermost edge of Zone A to a maximum of 80 feet. In this area ground covers may not extend over 18 inches in height. Some native vegetation may remain in this zone if they are adequately spaced, maintained free of dead wood and individual plants are thinned. This zone must be irrigated to maintain a high moisture content.
>
> Zone C (Thinning Zone) is required to extend from the outermost edge of Zone B up to 100 feet. This zone would primarily retain existing native vegetation, with the exception of high fuel species such as chamise, red shank, California

sagebrush, common buckwheat and sage. Dead or dying vegetation must be removed and the fuel in existing vegetation reduced by thinning individual plants.

Thus, the combined required fuel modification area around structures can extend up to a maximum of 200 feet. If there is not adequate area on the project site to provide the required fuel modification for structures, then brush clearance may also be required on adjacent parcels.

Notwithstanding the need to protect structures from the risk of wildfire, fuel modification results in significant adverse impacts that are in excess of those directly related to the development itself. Within the area next to approved structures (Zone A), all native vegetation must be removed and ornamental, low-fuel plants substituted. In Zone B, most native vegetation will be removed or widely spaced. Finally, in Zone C, native vegetation may be retained if thinned, although particular high-fuel plant species must be removed (Several of the high fuel species are important components of the coastal sage scrub community). In this way, for a large area around any permitted structures, native vegetation will be cleared, selectively removed to provide wider spacing, and thinned.

Obviously, native vegetation that is cleared and replaced with ornamental species, or substantially removed and widely spaced will be lost as habitat and watershed cover. Less obvious is the likelihood that even thinned areas will be greatly reduced in habitat value. Even where complete clearance of vegetation is not required, the natural habitat can be significantly impacted, and ultimately lost. For instance, in coastal sage scrub habitat, the natural soil coverage of the canopies of individual plants provides shading and reduced soil temperatures. When these plants are thinned, the microclimate of the area will be affected, increasing soil temperatures, which can lead to loss of individual plants and the eventual conversion of the area to a dominance of different non-native plant species. The areas created by thinning between shrubs can be invaded by non-native grasses that will over time out-compete native species.

For example, undisturbed coastal sage scrub vegetation typical of coastal canyon slopes, and the downslope riparian corridors of the canyon bottoms, ordinarily contains a variety of tree and shrub species with established root systems. Depending on the canopy coverage, these species may be accompanied by understory species of lower profile. The established vegetative cover, including the leaf detritus and other mulch contributed by the native plants, slows rainfall runoff from canyon slopes and staunches silt flows that result from ordinary erosional processes. The native vegetation thereby limits the intrusion of sediments into downslope creeks. Accordingly, disturbed slopes where vegetation is either cleared or thinned are more directly exposed to rainfall runoff that can therefore wash canyon soils into downgradient creeks. The resultant erosion reduces topsoil and steepens slopes, making revegetation increasingly difficult or creating ideal conditions for colonization by invasive, non-native species that supplant the native populations.

The cumulative loss of habitat cover also reduces the value of the sensitive resource areas as a refuge for birds and animals, for example by making them—or their nests and burrows—more readily apparent to predators. Finally, the introduction of artificial irrigation required for fuel modification has impacts on habitat. One example described above is the introduction of invasive Argentine ants that are better adapted to the wetter conditions of irrigated areas than are ant species native to California and tend to out-compete them. The loss of the native ants impacts arthropod species that rely on native ants as a food source.

a. Land Use Plan Policies

The LUP policies acknowledge that vegetation will be required by the Fire Department to be removed, thinned or otherwise modified around new buildings in order to minimize the risk of fire hazard. Fuel modification on the project site and brush clearance, if required, on adjacent vacant sites reduces the fire risk for new or existing structures. The LUP, both in this chapter and the Hazards Chapter allows for required fuel modification to minimize the risk of fire.

However, fuel modification removes watershed cover, and may remove or have impacts on ESHA. The LUP policies require that new development is sited and designed to minimize required fuel modification. Policy 4.45 (Hazards) requires that new development minimize risks to life and property from fire hazard by avoiding hazardous locations, using appropriate building materials and design features, and considering topography, slope, vegetation, and wind patterns. These measures will help to minimize the amount of fuel modification that is required as well.

Applications for new development need to include evidence of an approved fuel modification for the project site, a quantification of the area of natural vegetation that would be removed, thinned, irrigated or otherwise modified by the proposed project including the building pad area, road/driveway areas, fuel modification on the site, and brush clearance on adjacent properties (Policies 3.59 and 4.49). This information will be used by the decision-maker to assess the adverse impacts of the project and to identify potential project alternatives that can minimize such impacts.

While the impacts resulting from fuel modification can be reduced through siting and designing alternatives for new development, they cannot be completely avoided, given the high fire risk present in the City and the Santa Monica Mountains. Policy 3.62 of the Malibu LUP requires that impacts to ESHA from the removal, conversion, or modification of natural habitat for new development including fuel modification and brush clearance must be mitigated.

The Commission finds that the fuel modification policies of the Malibu LUP, by requiring that development is sited and designed to minimize required fuel modification to the extent feasible, and requiring mitigation of impacts to ESHA that cannot be avoided, will

minimize impacts to ESHA and therefore meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

The Malibu LIP implements the fuel modification policies of the LUP. The development standards (Section 3.10.2) of the LIP require that new development is sited and designed to minimize require fuel modification and brushing to the maximum extent feasible. Development is required to utilize fire resistant materials and to incorporate alternative fuel modification methods, such as firewalls, and landscaping techniques where feasible, in order to minimize the total area that is subject to fuel modification or brushing.

Additionally, the ESHA Overlay Ordinance (Chapter 4) of the LIP requires that all new development include mitigation for impacts to ESHA from the removal, conversion, or modification of natural habitat that cannot be avoided through the implementation of siting or design alternatives. The acreage of habitat that is impacted must be determined based on the size of the approved development area, road/driveway area, required fuel modification on the project site and required brush clearance, if any, on adjacent properties.

Section 4.8.1 of the Malibu LIP sets forth three methods for providing mitigation of habitat impacts. The first method is to provide mitigation through the restoration of an area of degraded habitat that is equivalent in size to the area of habitat impacted by the development. The restored habitat must be permanently preserved through the recordation of an open space easement. The second habitat impact mitigation method is habitat conservation. This includes the conservation of an area of intact habitat equivalent to the area of the impacted habitat. The parcel containing the habitat conservation area must be restricted from future development and permanently preserved. If the mitigation parcel is larger in size than the impacted habitat area, the excess acreage could be used to provide habitat impact mitigation for other development projects that impact ESHA. The third habitat impact mitigation option is an in-lieu fee for habitat conservation. The fee will be based on the habitat type(s) in question, the cost per acre to restore or create the comparable habitat type, and the acreage of habitat affected by the project. The fees required through permits will be used to acquire or preserve habitat as mitigation.

The Commission finds that the Malibu LIP conforms with and is adequate to carry out the fuel modification policies (Policies 3.59-3.62) of the Land Use Plan.

12. Native Trees

Trees that are native to the Santa Monica Mountains, including Malibu, are important coastal resources. Native trees prevent the erosion of hillsides and stream banks,

moderate water temperatures in streams through shading, provide food and habitat, including nesting, roosting, and burrowing to a wide variety of wildlife species, contribute nutrients to watersheds, and are important scenic elements in the landscape. Trees that are part of a woodland, savannah, or riparian ESHA would be protected from removal or other development impacts However, due to past development impacts, or historical land uses like grazing, individual trees exist that may not be part of a larger intact habitat area. Additionally, development may be permitted within ESHA in order to avoid a taking of private property, as discussed above. In such cases, native trees should still be protected. Finally, native trees that are not part of a larger, intact habitat may nonetheless provide nesting or roosting habitat for raptors and other birds that are rare, threatened, endangered, fully protected, or species of special concern. It is critical to such species that the tree habitat be protected. In past permit actions, the Commission has required that the removal of native trees, particularly oak trees, or encroachment of structures into the root zone be avoided unless there is no feasible alternative for siting development.

a. Land Use Plan Policies

The LUP requires the protection of native trees, including oak, walnut, sycamore, alder and toyon trees. Policy 3.63 requires that new development be sited and designed to prevent removal of trees and encroachment into the root zone of each tree, unless there is no other feasible alternative. Structures, including roads or driveways must be sited to prevent any encroachment into the root zone and to provide an adequate buffer outside of the root zone to allow for future growth. Applications for new development on sites containing native trees must provide a tree protection plan

Policy 3.65 requires that mitigation be provided where the removal of trees cannot be avoided by any feasible project alternative. Mitigation is also required for impacts that occur to trees as a result of development encroachments into the root zone that cannot be avoided through the implementation of siting or design alternatives. The mitigation must include, at a minimum the planting of replacement trees. If there is suitable area on the project site, replacement trees should be provided on-site, at a ratio of ten replacement trees for every one tree removed.

The Commission has found, through permit actions, that replacement trees, particularly oak trees, are most successfully established when the trees are seedlings or acorns. Many factors, over the life of the restoration, can result in the death of the replacement trees. In order to ensure that adequate replacement is eventually reached, it is necessary to provide a replacement ratio of at least ten replacement trees for every tree removed or impacted to account for the mortality of some of the replacement trees.

Additionally, Policy 3.65 requires that if on-site mitigation is not feasible, off-site mitigation must be provided through planting replacement trees at a suitable site, or by

providing an in-lieu fee. The fees required through permits will be used to restore or create native tree habitat as mitigation.

The Commission finds that the native tree policies of the Malibu LUP meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

The Local Implementation Plan implements the native tree policies of the LUP in the Native Tree Protection Ordinance (Chapter 5). This ordinance describes the species and size of trees that are subject to protection. Section 5.3 specifies that coastal development permit applications for development on sites containing native trees must include a tree protection plan that includes an inventory and map of the size, type, and health of all native trees on site. This plan must also include an analysis of all potential impacts from the proposed project with an identification of project alternatives that can avoid or minimize impacts to trees. Further, the plan should include mitigation measures to minimize or mitigate residual impacts that cannot be avoided through project alternatives, and a long-term monitoring plan.

Chapter 5 of the Malibu LIP also contains development standards to minimize impacts to native trees. These include siting and design of new development to preserve native trees, and to prevent encroachment into their root zones. Additionally, drainage must be directed away from tree root zones. Further, protective fencing is required to be placed around native trees that will be retained on site, but are within or adjacent to the construction area. Fencing must be placed prior to the commencement of construction and maintained in place until completion in order to ensure that any grading, staging, or other construction activities do not impact the native trees.

Where there is no feasible project alternative that can avoid removal, encroachment, or other adverse impacts to native trees, Section 5.5 of the Malibu LIP requires that such impacts are mitigated. At a minimum, the mitigation required is the planting of replacement trees on the project site, if suitable habitat area exists on-site. If on-site mitigation is not feasible, off-site mitigation must be provided through planting replacement trees at a suitable site containing suitable habitat area that is restricted from future development or is public parkland. An alternative off-site mitigation provided under Section 5.5.2 of the Malibu LIP is the provision of an in-lieu fee. The appropriate fee will be determined by the City based on the type, size and age of the tree removed or otherwise impacted by encroachments. Any fees collected will be paid into a fund administered by the Santa Monica Mountains Conservancy for the restoration or creation of native tree woodland or savanna habitat areas within the Santa Monica Mountains Coastal Zone.

The Commission finds that the Local Implementation Ordinance conforms with and is adequate to carry out the native tree protection policies (Policies 3.63-3.66) of the Land Use Plan.

13. Agriculture and Confined Animal Facilities

The Coastal Act policies provide for the continuation of coastal agriculture on prime agricultural lands. In many areas of the state, prime soils combine with unique coastal climates for highly productive agriculture. Recognizing increasing pressure to develop these areas with urban land uses, the Coastal Act requires that lands in prime agricultural production be maintained, except in very limited circumstances.

Given the topography and development pattern, there are not significant areas of existing agricultural use in Malibu. Historically, some of the flatter plains, including alluvial plains like those adjacent to Malibu Creek, were cultivated with crops. Additionally, areas were historically used for grazing. However, most of these areas have been converted to residential or commercial development. According to the City of Malibu General Plan, there are only very limited prime agricultural lands within the city, "...due to the patchy distribution of soils that have high capability for agricultural uses, and ..."these soils typically occur along the low relief slopes adjacent to the coast". The low relief slope areas adjacent to the coast are the most intensely developed areas of the City. No areas are specifically designated for exclusive agricultural development by the City General Plan or Interim Zoning Ordinance. As such, the LCP does not designate any areas for agricultural use. However, agricultural uses, including crops, orchards, and vineyards, are permitted as an accessory use in the Rural Residential and Single Family Residential zones. The Commission has found in past permit actions that such accessory uses may be found consistent with the Coastal Act only within the irrigated fuel modification area, and assuming that this area is not steeply sloping. The irrigated fuel modification zones would already be disturbed to carry out any clearing, thinning, landscaping with low-fuel plant species, and irrigation for the protection of approved residential structures. As such, the development of agricultural or confined animal uses in these areas would not be expected to have additional significant environmental impacts.

a. Land Use Plan Policies

The LUP policies establish parameters for the development of new agricultural uses or confined animal facilities. The conversion of vacant land in ESHA, ESHA buffer, or on slopes over 3:1 to new agricultural use is not permitted. The removal of natural vegetation and conversion of large areas to agricultural use on steep slopes will have significant adverse impacts, through erosion, sedimentation, and loss of habitat, on sensitive resources, including water quality. Crop, orchard, or vineyard uses in conjunction with an existing or new residential use may be permitted only within the

irrigated fuel modification area (Zones A and/or B, if required) for any approved structures, so long as such agricultural uses do not result in any expansion of the fuel modification area required for the residential structures. The policies allow for the development of confined animal facilities in conjunction with an existing or new residential project if it is not located on a steep slope (over 4:1), and does not require any expansion to the required fuel modification into ESHA or ESHA buffer.

The development of new agricultural or confined animal uses are prohibited within or adjacent to ESHA. Such uses are not resource-dependent and will have significant adverse environmental impacts if located within or in close proximity to ESHA, particularly riparian and stream areas. The only exception provided is in the case of residential development approved within coastal sage scrub or chaparral ESHA in order to provide an economically viable use (as set forth under LUP Policies 3.10 to 3.13). In the case of such an approved use, limited agricultural use may be permitted within the irrigated fuel modification area (Zones A, and/or B, if required). Further, accessory structures for confined animals may be permitted within the approved development area, and within the approved fuel modification area (Zones A, B, and/or C) so long as they are not located on a slope over 4:1, do not require additional grading (except minor grading for foundations), are constructed of non-flammable materials, and do not result in any expansion to the required fuel modification area.

Any approved agricultural or confined animal use must include measures to minimize impacts to water quality. LUP Policies 3.146 through 3.155 provide for such measures to protect water quality. Best management practices must be implemented in agricultural operations to prevent excessive sediment and pollutant impacts, including but not limited to the proper disposal of compost, wastewater, and any other byproducts of agricultural activities. With regard to confined animal uses, the LUP requires that the total number of animals on any site be limited according to constraints affecting the site, including, but not limited to size, slope, and presence of sensitive resources. Fewer total animals could be kept for instance, on a steep or small site, or one containing ESHA. Best management practices must be incorporated into approved confined animal projects, including vegetated filter strips and other measures to intercept, infiltrate, and filter runoff from the animal areas, and management of animal waste.

The Commission finds that the agriculture and confined animal facility policies of the Malibu LUP meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

Section 3.11 of the Malibu LIP implements the policies of the LUP regarding agricultural uses and confined animal facilities. This includes provisions for minimum parcel size that is required to allow confined animal uses, maximum standards for the number of

animals that may be maintained on a site, and separation standards between confined animal facilities and residential development.

In addition, the ESHA Overlay Ordinance (Chapter 4) provides standards for the approval of agricultural or confined animal uses within coastal sage scrub or chaparral ESHA in conjunction with development approved under Section 4.7 to provide an economically viable use. In such cases, crop, orchard, or vineyard uses may be permitted only within the irrigated fuel modification area (Zones A and B, if required) for the approved structures, so long as the use is not located on slopes over 3:1, doesn't result in increased fuel modification, and does not increase the possibility of in-stream siltation or pollution from herbicides or pesticides. Development permitted within coastal sage scrub or chaparral under the provisions of Section 4.7 of the LIP may include accessory confined animal structures within the required fuel modification area for structures approved within the development area, only if the structures are not located on slopes greater than 4:1, do not require additional grading other than minimal grading for foundations, is constructed from non-flammable materials, and do not result in any expansion to the fuel modification area.

Section 3.11.2(G) establishes standards for controlling the number of confined animals that may be allowed on a project site. This provision is based on the review of other local government's provisions for confined animals and represents an average based on that review. Exhibit 11 to the staff report contains a table detailing the horse-keeping restrictions that apply in several local governments with analogous situations, including County governments with area within the Coastal Zone, as well as City governments with area within the Santa Monica Mountains. Finally, as described below, Chapter 17 of the LIP addresses water quality protection. This chapter includes requirements for best management practices designed to minimize impacts from agricultural or confined animal uses.

The Commission finds that the Malibu Local Implementation Ordinance conforms with and is adequate to carry out the agriculture and confined animal facility policies (Policies 3.67-3.73) of the Land Use Plan.

14. Marine Resources

Section 30230 of the Coastal Act requires that marine resources are maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Finally, uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms. Any development proposed within tidelands or submerged lands will remain under the permit jurisdiction of the Coastal Commission. Nonetheless, the Malibu LCP provides guidance on the protection of marine resources in these areas. Additionally, the LCP includes policies and provisions regarding development on inland areas that could impact marine resources.

a. Land Use Plan Policies

The LUP ESHA and Marine Resources Map identifies known marine resources, including kelp forests, clam habitat, near shore shallow fish habitat, and areas utilized by sea lions. As discussed above, the ESHA and Marine Resources Map will be updated periodically to reflect changed circumstances or new information. As for ESHA areas, the presence of marine resources not already designated on the map shall be determined on the basis of site-specific studies of the proposed project site. Policies 3.3 and 3.74 provide that Areas of Special Biological Significance and Marine Protected Areas (as designated by the California department of Fish and Game) are considered ESHA and are subject to all of the protections provided for ESHA. Marine ESHA shall be protected against significant disruption of habitat values and only resource dependent uses may be permitted within ESHA. Residential, commercial or institutional uses shall not be considered resource dependent uses.

The LUP policies provide guidance on the protection of marine resources. Policy 3.80 states that marine mammal habitats, including haul-out areas shall not be altered or disturbed by new development. Near shore shallow fish habitats must be preserved and where feasible enhanced. Additionally, there are many LUP policies regarding development on inland areas that could impact marine resources. Development in areas adjacent to marine and beach habitats must be sited and designed to prevent impacts that could significantly degrade these areas. The LUP policies requiring the minimization of grading and landform alteration (Policy 3.42, and 6.8), the limitation or prohibition of earthmoving during the rainy season (Policies 3.47-3.49), and the landscaping or revegetation of cut and fill slopes and other areas disturbed by construction (Policy 3.50) ensure that erosion and sedimentation will be minimized. Marine resources, particularly kelp forests, are very sensitive to sedimentation. Finally, the water quality policies (Policies 3.94-3.155) require new development to be sited and designed, and to incorporate best management practices to prevent or reduce non-point source pollution and to protect water quality.

The Commission finds that the marine resource policies of the Malibu LUP meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

As discussed above, development proposed within tidelands or submerged lands will remain under the permit jurisdiction of the Coastal Commission after adoption of the LCP. As such, any development proposed within such areas will be considered for conformance with the policies of Coastal Act. Except for wetlands (discussed in Section 14 below), the LIP does not provide development standards for marine areas. The LIP does provide standards for inland projects designed to minimize impacts on marine resources through erosion, sedimentation and non-point source pollution. Chapter 8

regulates the total amount of grading and landform alteration, the design of grading projects, and provides seasonal restrictions on grading. Section 3.10 of the LIP requires the landscaping of graded or disturbed areas in order to minimize erosion and sedimentation. Finally, Chapters 17 and 18 provide standards for new development with regard to the protection of the quality of coastal waters and the protection of marine organisms.

The Commission finds that the Local Implementation Ordinance conforms with and is adequate to carry out the marine resource policies of the Land Use Plan.

15. Wetlands

The Coastal Act requires the protection of wetlands. Section 30231 provides that the biological productivity and the quality of wetlands and estuaries shall be maintained, and where feasible restored to maintain optimum populations of marine organisms. Section 30233 provides that the diking, filling, or dredging of open coastal waters, wetlands, or estuaries may only be permitted where there is no less environmentally damaging alternative and restricted to a limited number of allowable uses.

There are several identified wetland areas within the City, including lower Malibu Creek and Malibu Lagoon. Malibu Lagoon is one of the last large wetlands in Los Angeles County. Federally endangered tidewater gobies (*Eucyclogobius newberyyi*) and southern steelhead trout (*Oncoryhynchus mykiss irideus*) both use the lagoon and creek and federally endangered brown pelicans (*Pelecanus occidentalis californicus*) can be seen in and around the lagoon. Malibu Creek and Lagoon supports one of the remaining steelhead trout runs in Southern California. The Civic Center area of the City is adjacent to lower Malibu Creek and was historically floodplain. One area within the Civic Center has been identified as wetland. Other areas may contain wetland habitat, but have not yet been formally delineated. Finally, in addition to Malibu Lagoon, smaller lagoons form seasonally at the outlet of Zuma Creek (Zuma Lagoon), and Trancas Creek (Trancas Lagoon).

a. Land Use Plan Policies

The LUP policies provide for the protection of wetlands. The biological productivity and the quality of wetlands shall be protected and where feasible restored. Known wetlands are shown on the LUP ESHA and Marine Resources Map. Additionally, any areas which meet the following definition will be considered wetland and accorded all the protections provided for wetlands in the LUP:

> Lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

As described above, applications for new development that is not located within or adjacent to identified ESHA need to include an inventory of the plant and animal species known or expected to occur on the project site. If the City determines that the initial biological inventory indicates the presence or potential for wetland species or indicators, a full, detailed biological survey, as required in LUP Policy 3.37, with the addition of a delineation of all wetland areas on the site will be required. Wetland delineations must indicate all areas that meet the definition of wetland under the Coastal Act and the LUP. Delineations for the purpose of determining jurisdiction under federal law should be prepared in coordination with the U.S. Army Corps of Engineers and other applicable federal resource agencies. The detailed study will provide site-specific information to the City Biologist and the Environmental Review Board for the determination of the presence of ESHA and wetland on the proposed project site.

In order to ensure that wetland habitat within the Civic Center is protected, LUP Policy 5.17 requires, as part of the preparation of a specific plan or other comprehensive plan, that a wetland delineation be prepared, consistent with the requirements of Policy 3.86, for the area. Further, if no specific plan or comprehensive plan is prepared, then development on individual parcels within the Civic Center must include a wetland delineation.

Buffers must be provided around wetlands to serve as transitional habitat, provide distance and physical barriers to human intrusion, and to provide area for infiltration of runoff, minimizing erosion and sedimentation. Buffers are required to be of a sufficient size to ensure the biological integrity and preservation of the wetland. In no case shall wetland buffers be less than 100 feet in width.

The LUP policies set forth the limited instances in which the diking, filling or dredging of wetlands or open coastal waters could be allowed, where there is no feasible less environmentally damaging alternative and where all feasible mitigation measures have been provided. Such diking, filling or dredging is limited to incidental public service purposes, habitat restoration, or nature study, aquaculture, or similar resource dependent activities. The Coastal Act allows for additional uses in wetland or open coastal waters, including port, energy, coastal dependent industrial uses, maintaining existing dredged channels, entrance channels for boating facilities, and structural pilings for public recreational piers. However, the LUP policies do not provide for these uses within wetlands or open coastal waters in the City. There are no proposals for such uses and no suitable areas to develop these types of uses have been identified. No LUP land use designation allows port, energy, or boating uses (Section I contains a discussion of energy and coastal dependent industrial uses). Any future proposal for any of these uses would require an LUP amendment.

Coordination with applicable state and federal resource agencies will be required on all projects involving wetlands. Applications for development within or adjacent to wetlands must include evidence of consultation and preliminary approval from such agencies as California Department of Fish and Game, United States Army Corps of Engineers,

United States Fish and Wildlife Services and any other applicable resource agency. Areas containing tidelands or submerged lands will also be subject to the permit jurisdiction of the Coastal Commission.

Policy 3.90 states that where dike or fill development is approved in conformance with the Coastal Act and the LCP, mitigation for impacts to wetland habitat shall include, at a minimum, creation or substantial restoration of wetlands of a similar type. Adverse impacts will be mitigated at a ratio of 3:1 for seasonal wetlands, freshwater marsh and riparian areas, and at a ratio of 4:1 for vernal pools and saltmarsh, unless the applicant provides evidence establishing, and the City finds, that creation or restoration of a lesser area of wetlands will fully mitigate the adverse impacts of the dike or fill project. However, in no event will the mitigation ratio be less than 2:1 unless, prior to the development impacts, the mitigation is completed and is empirically demonstrated to meet performance criteria that establish that the created or restored wetlands are functionally equivalent or superior to the impacted wetlands.

Lagoon breaching or water level modification shall not be permitted until and unless a management plan for the lagoon is developed and approved, except in the case of a health or safety emergency. The LUP provides for the development of a lagoon management plan for Malibu Lagoon, which is located within Malibu Lagoon State Beach. Any such management plan must address alternative projects for managing the water level in the lagoon or for breaching the lagoon. The alternatives analyzed should take into account the lagoon hydrology, water quality, sensitive species, potential adverse impacts to identified resources, and the identification of the water level necessary to protect the various existing species within the lagoon. The alternative chosen shall avoid and minimize impacts to sensitive resources, particularly rare, threatened, and endangered plant and animal species. The management plan must include mitigation measures designed to mitigate unavoidable environmental impacts. Finally, the plan shall provide for monitoring the lagoon to evaluate the continuing health of the wetland, to assess adverse impacts resulting from water level management or breaching and the success of mitigation measures, and to identify project corrections. The lagoon management plan must be approved by the City and certified by the Commission as an amendment to the LCP.

The Commission finds that the wetland policies (Policies 3.83-3.93) meet the requirements of and are in conformity with the land and marine resource policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

The Malibu LIP implements the wetland protection policies in Chapter 4. Section 4.4 details the information that must be provided in a biological study, including a wetland delineation, if there is any indication of the presence or potential for wetland species or indicators on a development site. The LIP provides standards for the preparation of wetland delineations. Section 4.5 of the LIP lists the limited types of development that

may be permitted within wetlands. Section 4.6 provides the development standards for wetland buffers. The LIP (Section 4.8.2) requires that any new development that includes dike or fill development in wetlands for a use permitted under the Coastal Act and LCP provide mitigation for impacts to wetland habitat in the form of creation or restoration of wetlands of the same type as the affected wetland. This section identifies the requirements for wetland mitigation, including required mitigation ratios (number of acres of created or restored wetland for each acre of wetland habitat impacted) for different types of wetland habitat.

The Commission finds that the Malibu LIP conforms with and is adequate to carry out the wetland policies of the Land Use Plan.

16. Water Quality

The City of Malibu lies within several significant watersheds, including Malibu Creek Watershed and Topanga Creek Watershed. Numerous coastal creeks drain from these watersheds into the Pacific Ocean and Santa Monica Bay, where popular public recreation areas exist. The California Ocean Plan designates an Area of Special Biological Significance (ASBS) from Point Mugu to Latigo Point extending 1000 feet offshore or to a depth of 100 feet (whichever is more distant from shore). ASBSs are areas designated by the State Water Resources Control Board that require protection of species or biological communities to the extent that alteration of natural water quality is undesirable. Maintaining and restoring water quality throughout the Malibu watersheds is necessary to protect these sensitive coastal resources.

The Commission shares responsibility for regulating nonpoint source water pollution in the Coastal Zone of California with State Water Resources Control Board (SWRCB) and the coastal Regional Water Quality Control Boards (RWQCBs). The Commission and the SWRCB have been co-leads in developing and implementing the January 2000 *Plan for California's Nonpoint Source Pollution Control Program* (Plan), which outlines a strategy to ensure that management measures and practices that reduce or prevent polluted runoff are implemented over a fifteen-year period. Some of these management measures and practices are best implemented at the local planning level, since they can be most cost effective during the design stage of development.

The Commission and the Los Angeles Regional Water Quality Control Board (LARWQCB) are both working to protect water quality in the Malibu area, although each has different authorities and responsibilities in that effort. The Commission has primary responsibility for protecting many coastal resources, including water quality, from the impacts of development in the coastal zone. The SWRCB and RWQCBs have primary responsibility for regulating discharges that may impact waters of the state through writing discharge permits, investigating water quality impacts, monitoring discharges, setting water quality standards and taking enforcement actions where standards are violated. Given the common goal of clean coastal water quality, there is a gray zone where the authorities of these agencies overlap. For example, based on the need to

regulate land use in order to protect water quality, the LARWQCB has provided guidance and requirements in its model Standard Urban Storm Water Mitigation Plan (SUSMP) for land use development that may impact water quality. The Malibu LCP reflects these guidance and requirements with some modifications due to the site-specific conditions in Malibu, the additional requirements of the Coastal Act and comments of interested parties including the City of Malibu.

Several water bodies in and adjacent to the City of Malibu have been placed on the state's list of impaired water bodes (Clean Water Act 303(d) list) including Malibu Creek, Malibu Lagoon and Malibu Beach. The LARWQCB is developing a Total Maximum Daily Load (TMDL) for bacteria at Santa Monica Bay Beaches, including the Malibu beach area. The Malibu Creek nutrient and pathogens TMDLs are in the preliminary draft stage. Once these TMDLs are completed, the City may need to amend the LCP to further control development in order to reduce the loading of pollutants of concern to these waters.

a. Land Use Plan Policies

The Commission recognizes that new development in the Santa Monica Mountains and Malibu area has the potential to adversely impact coastal water quality through the removal of native vegetation, increase of impervious surfaces, increase of runoff, erosion, and sedimentation, introduction of pollutants such as petroleum, cleaning products, pesticides, and other pollutant sources, as well as effluent from septic systems. Section 30231 of the Coastal Act states that:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

New development often results in an increase in impervious surface, which in turn decreases the infiltrative function and capacity of existing permeable land on project sites. The reduction in permeable surface therefore leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. The cumulative effect of increased impervious surface is that the peak stream discharge is increased and the peak occurs much sooner after precipitation events. Changes in the stream flow result in modification to stream morphology. Additionally, runoff from impervious surfaces results in increased erosion and sedimentation.

Further, pollutants commonly found in runoff associated with new development include:

- petroleum hydrocarbons such as oil and grease from vehicles;
- heavy metals;
- synthetic organic chemicals including paint and household cleaners;
- soap and dirt from washing vehicles;
- dirt and vegetation from yard maintenance;
- litter and organic matter;
- fertilizers, herbicides, and pesticides from household gardening or more intensive agricultural land use;
- nutrients from wastewater discharge, animal waste and crop residue; and
- bacteria and pathogens from wastewater discharge and animal waste.

The discharge of these pollutants to coastal waters can cause cumulative impacts such as:

- eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat, including adverse changes to species composition and size;
- excess nutrients causing algae blooms and sedimentation increasing turbidity, which both reduce the penetration of sunlight needed by aquatic vegetation that provide food and cover for aquatic species;
- disruptions to the reproductive cycle of aquatic species;
- acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior; and
- human diseases such as hepatitis and dysentery.

These impacts reduce the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes, reduce optimum populations of marine organisms and have adverse impacts on human health.

The goal of the LUP water quality policies is to protect and enhance water quality and the beneficial uses of local coastal waters and ground waters from adverse impacts related to land development. The objectives of the policies are three-fold:

- Protect, enhance and restore wetlands, streams, and groundwater recharge areas.
- Promote the elimination of pollutant discharge, including nonpoint source pollution, into the City's waters through new construction and development regulation including but not limited to site planning, environmental review and mitigation, and permit conditions of approval.
- Promote Best Management Practices to limit water quality impacts from existing development, including septic system maintenance and City services.

The LUP contains several policies to meet the goal of protecting and enhancing water quality and the beneficial uses of local coastal waters and ground waters from adverse

impacts related to land development. Several policies provide specifically for the requirement of Best Management Practices (BMPs) related to siting and design of the project, the construction phase of the project, and the post-construction phase of the project. The wastewater policies in the LUP (3.124 – 3.145) include requirements for the siting, design, installation, maintenance and operation of On-site Wastewater Treatment Systems (OSTSs) to prevent or minimize impacts to water quality. Additional policies (3.146-3.155) require BMPs to prevent or minimize impacts to water quality from agricultural and confined animal facility development. The Malibu LUP policies also recognize the SWRCB and RWQCBs' authority to revise existing water quality standards and regulations, and advise the City to amend any LCP policies or standards that are in conflict with those SWRCB or LARWQCB standards or regulations.

Recent activities or decisions by the LARWQCB that affect the regulation of land use in the Malibu area include support of recommendations by the Santa Monica Bay Restoration Project for the management of OSTSs and approval of Waste Discharge Requirements (WDRs) for OSTSs. The LARWQCB also conducted a study of septic systems from August 1999 through June 2000. This study found that septic system discharges are a source of nutrients and bacteria responsible for beach closures associated with flows to the ocean from Malibu Lagoon, and concluded that septic systems are a cause of groundwater and surface water pollution in Malibu. Ongoing activities that are expected to result in decisions by the LARWQCB include the development of Total Maximum Daily Loads (TMDLs) for Malibu Creek, Malibu Lagoon and adjacent beaches, the development of new statewide OSTS regulations pursuant to Assembly Bill 885, and the review of existing waivers of WDRs pursuant to Senate Bill 390. Where those activities or decisions by the LARWQCB are substantially complete, the LCP incorporates the aspects of those activities that are relevant to development in the Coastal Zone. Where those activities or decisions that affect coastal development are still in process, the LCP will need to be modified at a later date to reflect the decisions of the LARWQCB.

The LARWQCB recently adopted Resolution No. R4-02-014, (Exhibit 12) which supports the Coastal Commission in the development of the Malibu LCP. In this resolution, the LARWQCB recommended that the LCP provide special protection from water quality impacts caused by beachfront development, as this land use has a higher potential to impact water quality due to its proximity to coastal waters. Policy 3.98a has been added to the water quality section of the LUP to indicate that beachfront development shall incorporate BMPs designed to minimize or prevent polluted runoff to the beach and ocean waters. In Chapter 17 of the LIP, the category of beachfront development has been added to those types requiring a Water Quality Mitigation Plan, and hence Treatment Control BMPs, providing for more protection from water quality impacts. Chapter 18 has also been modified to require secondary wastewater treatment systems, at a minimum, for all beachfront development.

These policies contained in the Malibu LUP provide for the protection and enhancement of water quality and the beneficial uses of local coastal waters and ground waters from

adverse impacts related to land development. Therefore, the Commission finds that the Malibu LUP meets the requirements of and is in conformity with Section 30231 of the Coastal Act.

b. Local Implementation Plan Provisions

The water quality implementation measures were separated into two chapters in the LIP – Water Quality Protection Ordinance (Chapter 17) and On-Site Wastewater Treatment System Standards Ordinance (Chapter 18).

Water Quality Protection Ordinance (Chapter 17)

The intent of the Water Quality Protection Ordinance is to ensure that all development is evaluated for potential adverse impacts to water quality and that applicants consider Site Design, Source Control and Treatment Control BMPs in order to prevent polluted runoff and water quality impacts resulting from the development. Several components of the Water Quality Protection Ordinance were taken directly from the City's existing Storm Water Management and Discharge Control Ordinance (Article V, Sanitation and Health, Chapter 4, Ordinance 157, amended by Ordinance 219, February 20, 2001). Other provisions were based on the Los Angeles Regional Water Quality Control Board (LARWQCB) Countywide Municipal NPDES Permit and model Standard Urban Storm Water Mitigation Plan (SUSMP). The LARWQCB issued the NPDES Permit to the County and 88 cities in 1996. The Permit requires development and implementation of a program addressing storm water pollution issues in development planning for private projects. In March 2000 the LARWQCB adopted a resolution that approved the SUSMP, which spelled out actions that local land use planning agencies must follow to reduce the impacts of nonpoint source pollution. The LARWQCB required all cities in its region to adopt local SUSMPs and implementing ordinances. The SUSMP contains a list of minimum Best Management Practices (BMP's) that must be used for designated projects.

Chapter 17 requires the development and submittal of water quality plans that incorporate BMPs designed to prevent or minimize impacts to water quality. There are four plans outlined in this ordinance: a Local Storm Water Pollution Prevention Plan that includes BMPs to protect water quality during the construction phase of a project; a Storm Water Management Plan, which is required for all development and includes appropriate Site Design and Source Control BMPs to minimize or prevent adverse effects of the project on water quality; a Water Quality Mitigation Plan, which is only required for certain types of development, and includes Treatment Control (or Structural) BMPs (in addition to Site Design and Source Control BMPs) to minimize or prevent the discharge of polluted runoff from the project; and a Water Quality Mitigation Plan for Agricultural and Confined Animal Facility Development that includes BMPs designed to prevent or minimize water quality impacts from these types of development.

The Water Quality Protection Ordinance also provides Development Standards, which specify BMP selection methods and sizing criteria, requirements for development on steep slopes, and standards related to specific types of development (i.e., commercial, restaurants, etc.). Provisions related to hydromodification, agriculture and confined animal facilities are also provided in the ordinance.

These plans, developments standards, and other provisions of the Water Quality Protection Ordinance are necessary to implement the water quality policies of the LUP and ensure that all development is evaluated for potential adverse impacts to water quality and that applicants consider Site Design, Source Control and Treatment Control BMPs in order to prevent polluted runoff and water quality impacts resulting from the development. The Commission finds that the provisions of Chapter 17 and 18 of the Malibu LIP conform to and are adequate to carry out the water quality protection policies of the Malibu LUP.

On-Site Wastewater Treatment System Standards Ordinance (Chapter 18)

The intent of the On-Site Wastewater Treatment System Standards Ordinance (OSTS Standards Ordinance) is to protect coastal waters within and adjacent to the City of Malibu from impacts resulting from the design, siting, installation, operation, and maintenance of On-site Wastewater Treatment Systems (OSTSs), in accordance with the policies of the City's Local Coastal Plan. It includes permit application requirements; siting, design and performance standards; maintenance, operation and monitoring requirements; and other measures to ensure that permitted OSTSs prevent the introduction of pollutants into coastal waters and protect the overall quality of coastal waters and resources.

The standards in Chapter 18 are based on the City of Malibu Plumbing Code, determinations made by the Los Angeles Regional Water Quality Control Board (LARWQCB)[111], recommendations of the Santa Monica Bay Restoration Project (SMBRP) septic system management task force, policies being developed for statewide implementation in accordance with Assembly Bill 885 (Jackson)[112], and other sources. In order to provide guidance on OSTS development upon completion of this LCP, Chapter 18 requires that OSTSs be designed, sited, installed, operated and maintained

[111] The LA RWQCB issued General Waste Discharge Requirements for Small Commercial and Multifamily Residential Subsurface Sewage Disposal Systems (Order No. 01-031) in 2001 and General Waste Discharge Requirements for Private Subsurface Sewage Disposal Systems in Area Where Groundwater is Used or May be Used for Domestic Purposes (Order No. 91-94) in 1991.

[112] Assembly Bill (AB) 885, adopted September 27, 2000, requires the State Water Resources Control Board to adopt statewide regulations for the permitting and operation of onsite septic treatment systems on or before January 1, 2004. Currently, the State Board is drafting regulations, with input from a wide spectrum of stakeholders including local government, industry, and environmental organizations. When the regulations are adopted, all individual, commercial and community onsite septic treatment systems will be required to meet the standards. The City of Malibu may be authorized to manage local single-family individual septic systems consistent with AB 885.

in compliance with the policies and provisions in the LCP and Chapter 18. If the rules and regulations developed for OSTSs by the State Water Resources Control Board pursuant to Assembly Bill 885 conflict with the requirements of the LCP (i.e., if it is not possible for applicants to comply with both the LCP and State Board requirements), the City shall submit an LCP amendment seeking to modify the requirements of the LCP to conform with the regulations of the State Water Resources Control Board.

The OSTS Standards Ordinance also requires that development involving onsite wastewater discharges be consistent with the rules and regulations of the LARWQCB including Waste Discharge Requirements (WDRs), revised waivers and other regulations that apply. To date, the LARWQCB has waived the requirement for individual septic system owners to acquire a permit (WDRs) for operating a system that may negatively impact coastal waters. By waiving this requirement under the California water code, they have essentially delegated responsibility for oversight to the local jurisdiction. Senate Bill (SB) 390, signed into law October 6, 1999, requires each regional board to review or terminate, as appropriate, waivers of WDRs by January 1, 2003. Currently, LARWQCB staff are considering whether to renew or terminate the waiver for individual OSTSs. Any implementation of the revised waivers may require an amendment to the LCP.

One of the recommendations of the SMBRP septic system management task force (Task Force) is for the City of Malibu to develop and implement a wastewater management plan (WMP) that would specify how the City of Malibu will manage the use of OSTSs within its jurisdiction and require the owners of those systems to make any modifications necessary to prevent any adverse impacts to water quality. While the Commission strongly supports such a plan, especially in a region that relies on septic systems in such close proximity to coastal resources, an LCP is not the proper vehicle to require a local jurisdiction to create such a plan. Instead of requiring a WMP, the LCP reiterates the Task Force recommendations and, indicates those portions of a WMP that the City is planning to implement. In fact, the City is in the process of implementing several elements of a WMP and has indicated that they will fully develop and adopt the plan by December 31, 2004.

Chapter 18 requires a CDP for all new OSTSs, for any expansion and modification of an existing OSTS, or for a change in the type or intensity of use of an existing system. This ordinance also includes standards for developing Site Evaluation Reports where septic systems are proposed. Standards are provided indicating that a Standard Operating Permit (SOP) is required for standard OSTSs for single-family residences in areas of low environmental sensitivity and a Renewable Operating Permit (ROP) is required for the following:

- Systems for commercial and multi-family residential developments.
- Alternative/enhanced treatment systems.
- Performance-based systems required to achieve specific water quality criteria.

Chapter 18 includes siting, design and performance requirements for OSTSs, as well as operation, maintenance, and monitoring requirements. In addition, standards for the use of alternative OSTS systems are provided for those areas where standard OSTSs do not provide adequate protection of water quality.

These application requirements, siting, design and performance standards, maintenance, operation and monitoring requirements and other provisions of the OSTS Standards Ordinance are necessary to implement the wastewater policies of the LUP and ensure that permitted OSTSs prevent the introduction of pollutants into coastal waters and protect the overall quality of coastal waters and resources.

The Commission finds that the provisions of Chapter 17 and 18 of the Malibu LIP conform with and are adequate to carry out the water quality policies (Policies 3.94-3.155) of the Land Use Plan.

17. Conclusion

One of the primary goals of the Coastal Act is the preservation, protection, and enhancement of coastal resources, including land and marine habitats, and water quality. There are rich, diverse native habitats within the City. As described in detail above, the Santa Monica Mountains Mediterranean Ecosystem, which includes the undeveloped native habitats of the City of Malibu, is rare and especially valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. The undeveloped native habitats within the City of Malibu that are discussed above are ESHA because of their valuable roles in that ecosystem, including providing a critical mosaic of habitats required by many species of birds, mammals and other groups of wildlife, providing the opportunity for unrestricted wildlife movement among habitats, supporting populations of rare species, and preventing the erosion of steep slopes and thereby protecting riparian corridors, streams and, ultimately, shallow marine waters. In addition to ESHA, there are valuable marine resources and wetland.

a. Land Use Plan

As described in detail above, the LUP Marine and Land Resource Policies (Policies 3.1-3.155) along with the LUP ESHA and Marine Resources Map provide for the protection of sensitive land and marine resources. The Commission finds that the Malibu Land Use Plan meets the requirements of and is in conformity with the provisions of Sections 30230, 30231, 30233, 30236, 30240, 30241, 30241.5, and 30242 of the Coastal Act.

b. Local Implementation Plan

As described in detail above, the Malibu Local Implementation Plan contains provisions including the ESHA Overlay Ordinance, Protected Tree Ordinance, Water Quality Protection Ordinance, On-Site Wastewater Treatment System Standards Ordinance, that address protection of ESHA. Further, there are provisions in other chapters of the LIP, including zoning, development standards, grading restrictions, and land division standards that also serve to implement the resource protection policies of the Land Use Plan. The Commission finds that the Malibu Local Implementation Plan conforms with and is adequate to carry out the land and marine resource policies of the Malibu Land Use Plan.

E. Hazards & Shoreline/Bluff Structures

1. Coastal Act Provisions

Under the Coastal Act, development is required to be sited and designed to minimize risks, assure stability and structural integrity, and neither create nor contribute significantly to erosion or require the construction of protective devices that would substantially alter the natural landforms along bluffs and cliffs (Section 30253). Section 30235 of the Coastal Act allows the construction of shoreline protective devices where existing development is threatened from erosion and when designed to eliminate or mitigate impacts on shoreline sand supply. The Coastal Act also provides that development damaged or destroyed by natural disasters can be rebuilt in the same location, exempt from a coastal development permit, under certain conditions. Certain emergency actions are also exempt from permit requirements.

2. Coastal Act Policies

Section **30253** of the Coastal Act states that:

New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

(3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

(4) Minimize energy consumption and vehicle miles traveled.

(5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

Section 30235 of the Coastal Act allows the construction of shoreline protective devices where existing development is threatened from erosion and when designed to eliminate or mitigate impacts on shoreline sand supply.

Section 30235

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

The Coastal Act also provides that development damaged or destroyed by natural disasters can be rebuilt in the same location, exempt from a coastal development permit, under certain conditions in PRC Section 30610(g). Certain emergency actions are also exempt from permit requirements or are allowed subject to temporary restrictions or follow-up permit requirements.

3. Introduction

The City of Malibu lies at the junction of the Santa Monica Mountains and the Pacific Ocean. Development within the City, including roads and other infrastructure is highly vulnerable to a variety of natural hazards including threats from landslides, wild fires, earthquakes, storm waves, and flooding. Bluffs, beaches, and steep hillsides are subject to natural erosional forces, often accelerated by the effects of fires, torrential rains, and winter storms. Fire is a serious potential threat several months of every year due to the typically long summer dry season characteristic of the Mediterranean climate and periodic "El Nino" winter storm seasons which cause considerable destruction or severe damage to beachfront homes, widespread erosion along the shoreline and bluffs, and landslides that destroy or damage homes, septic systems and roads, including Pacific Coast Highway. Occasionally, a severe fire season is followed by a winter of high rainfall, leading to extraordinary erosion and landslides on hillside property which had been denuded of vegetation by the fire. The dependence on septic systems for waste disposal throughout the City, with minor exceptions, creates additional hazards due to the effect of poorly maintained or located systems on steep

slopes and beaches, the aforementioned erosional forces and a high water table in many areas.

The Malibu shoreline consists of a series of rocky headlands and narrow crescent shaped beaches, vulnerable to erosion and wave uprush. Unlike many other coastal communities in the State, a large portion of the beachfront property in Malibu was subdivided and developed prior to 1976, before the effective date of the Coastal Act. Most of this development occurred without the benefit of planning or mitigation to minimize impacts from wave hazards and to coastal resources. Largely as a result of the pre-existing pattern of development in Malibu, development along the shoreline continues to be permitted, placing more property at risk. To reduce the risk to private beachfront development, armoring of the shoreline has often occurred in the form of vertical seawall and rock revetments. Many of these structures have been placed on the beach as emergency actions during or immediately following winter storms, often without permits or adequate planning relative to placement, design, and impacts to adjacent properties and shoreline processes and public recreation. Loss of beach and, therefore, public access is too often the result of the construction of protective structures such as seawalls and revetments.

The cumulative loss of shoreline and public recreational resources from the encroachment of armoring on sandy beaches is an important coastal management issue. The City lies within the Santa Monica Littoral cell. The major sediment source has historically been the streams draining the Santa Monica Mountains. The sediment from much of the drainage area, however, has been trapped behind dams and catchment basins, never reaching the coast (USACOE). Another significant sediment source has been the incremental addition of eroded material from coastal bluffs. In addition to covering beach area that provides for recreation, however, shoreline armoring also can exacerbate erosion by fixing the back beach and eliminating the influx of sediment from coastal bluffs. The City has found that over 60 percent of the bluffs are blocked from the erosive forces of wave action by some form of development, including Pacific Coast Highway, vertical seawalls and revetments. Armoring also causes localized scour in front or at the end of the seawall or revetment. In addition, by allowing shoreline armoring in areas with existing development, the cycle of rebuilding storm damaged or destroyed development in the same hazardous areas is often perpetuated. From 1978 through 1996, the Coastal Commission and the County or City authorized protective devices along an estimated 2.8 miles of shoreline, covering an estimated 3.5 acres of sandy beach (ReCAP, 1999). The ReCAP report found that when added to the amount of shoreline armored prior to 1978, determined by Coastal Commission analysis of aerial photos, and the armoring which has taken place without permits, a total of approximately 50 percent of the City's shoreline has been impacted by shoreline protective structures. The report concluded that unless future armoring is avoided, future buildout of shoreline lots could result in up to 5 miles of additional shoreline armoring with hard structures. Additional armoring is even more likely given the location of Pacific Coast Highway (PCH). PCH continues to be threatened by erosion, wave uprush and flooding wherever it is located adjacent to the ocean, and

given its importance to regional access and transportation, it is possible it will be armored throughout most of its length in the City unless alternative means of protection are developed.

To ensure consistency with policies 30235 and 30253 of the Coastal Act, the policies contained in the Land Use Plan are intended to facilitate development in a manner which minimizes impacts from hazards as well as impacts to coastal resources, including public access and recreation. These policies are discussed below under the following issue areas:

- General Development;
- Shoreline Development;
- Shoreline Erosion and Protective Structures;
- Fire Hazards;
- Emergency Actions and Response.

4. General Development

As discussed above, the shoreline, canyons and mountains within the City of Malibu are subject to an unusually high amount of natural hazards including landslides, erosion, and flooding. In addition, wildfire is an inherent threat to the indigenous chaparral community of the coastal mountains. Wildfires often denude hillsides in the Santa Monica Mountains of all existing vegetation, thereby contributing to an increased potential for erosion and landslides on property. Development in Malibu and the surrounding mountains results in an increase in the amount of impervious surfaces on a site, which increases both the volume and velocity of storm water runoff. If not controlled and conveyed off of the site in a non-erosive manner, this runoff will cause increased erosion on and off of the site. Increased erosion may result in sedimentation of a nearby stream during and after construction. Uncontrolled erosion leads to sediment pollution of downgradient water bodies including the ocean as well. Surface soil erosion has been established by the United States Department of Agriculture, Natural Resources Conservation Service, as a principal cause of downstream sedimentation known to adversely affect riparian and marine habitats. The construction of single-family residences in sensitive watershed areas and ESHAs has been established as a primary cause of erosion and resultant sediment pollution in coastal streams.

Due to the wide array and frequency of geologic hazards in Malibu it is almost always necessary to conduct specific geotechnical investigations of proposed development sites to determine the site's suitability for development and any restrictions or recommendations that are necessary for safe development. Restrictions or recommendations are commonly included in geotechnical site investigations relative to grading and site preparation, foundations, settlement, drainage, retaining walls and septic systems. Occasionally, geologic restricted use areas are recommended on a site

due to the presence of an active fault or landslide, expansive soils or extremely steep slopes. In past actions permitting development in the Santa Monica Mountains, the Commission has frequently required applicants to incorporate all recommendations of the consulting geologist into final design plans and to assume the risk of development and to waive any future claims of liability against the Commission for damage that may occur as a result of development. In addition, the Commission has regularly required applicants to institute drainage and erosion control measures during and after construction.

a. Land Use Plan Policies

The proposed Land Use Plan contains a number of policies which provide for the siting, design and construction of new development in a manner and/or location which minimizes risks from geologic, flood and fire hazard including a requirement that applications contain a geotechnical investigation of the site (4.2-4.5). Additional policies provide for the remediation or stabilization of landslides (4.6), hillside management requirements for development on steep slopes (4.7 & 4.8), mitigation measures for development within flood hazard areas (4.9 & 4.12), and adequate erosion and drainage control measures (4.10). The LUP requires all development to utilize secondary treatment and evapotranspiration waste disposal systems, where feasible (4.11). The LUP also prohibits land divisions unless all proposed parcels can be demonstrated to be safe from flooding, erosion, geologic and fire hazards and be developed consistent with all applicable policies of the LUP (4.12).

Based on the findings above, the Commission finds that the policies contained in the adopted Land Use Plan for the City of Malibu discussed above, meet the requirements of and are in conformity with Sections 30235 and 30253 of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

The Hazards policies in the LUP are implemented by the LCP Hazards Ordinance, Chapter 9 in the LIP. The purpose and intent of the Hazards Ordinance is to insure that all new development minimizes risks to life and property in areas of high geologic, flood, and fire hazard (9.1). To implement the LUP, the Ordinance includes development standards, permit and application requirements, and other measures to ensure that permitted development is sited and designed to assure stability and structural integrity, and neither create nor contribute to erosion, geologic instability, or destruction of the site or surrounding area. The standards are applicable to areas subject to hazards including, but not limited to: (1) hillside areas that have the potential to slide, fail, or collapse; (2) areas located within the Malibu Coast-Santa Monica Fault Zone-areas identified on the official maps of Alquist-Priolo earthquake fault zones prepared by the California Geological Survey; (3) floodprone areas likely to flood during major storms as designated on FEMA Flood Insurance Rate Maps; (4) areas subject to liquefaction; (5)

shoreline areas including bluffs subject to damage from wave action during storms; (6) areas subject to inundation during tsunamis; and, (7) areas subject to major wildfires which includes the majority of the City (9.2). All development requiring a CDP on any parcel of land located on or near any area subject to hazards is governed by the policies, standards, and any other provisions of Chapter 9.

The Hazards Ordinance requires written findings of fact, analysis, and conclusions addressing any potential hazards on or near a proposed development site and/or where it is determined that a proposed project causes the potential to create adverse impacts upon site stability or structural integrity in support of all approvals, conditional approvals, or denials (9.3). The Ordinance further provides that the findings shall address the specific project impacts relative to the applicable development standards contained in the Chapter and be supported by substantial evidence in the record. If found to be necessary to conform to the development standards or any other applicable policy or standard of the certified LCP, the Ordinance also requires that the proposed development be modified, by special condition, relative to height, size, design, or location on the site and, where applicable, be required to incorporate other methods to avoid or minimize adverse impacts. The LCP does not permit off-site mitigation to substitute for implementation of a feasible project alternative that would lessen or avoid impacts to site stability or structural integrity.

The Hazards Ordinance contains numerous development standards applicable to all new development on sites located in or near an area subject to geologic, flooding, wave action, or wildfire which includes a substantial portion of the City (9.4). Development standards include the requirement to submit a geologic/soils/ geotechnical report prepared by a licensed Certified Engineering Geologist or Geotechnical Engineer; that all recommendations of the consulting CEG, GE or City Geologist be incorporated into all final design and construction; and that final plans approved by the consultant or City Geologist be in substantial conformance with the plans approved by the City relative to construction, grading, sewage disposal and drainage. Any substantial change in the proposed development approved by the City shall require an amendment to the CDP or a new permit. The standards require that new development on landslides, steep slopes, unstable soils or any other identified geologic hazard area adhere to a factor of safety of 1.5 (static) and 1.1 (pseudostatic) as demonstrated by a quantitative slope stability analysis. Additional standards provide that measures to remediate or stabilize landslides or unstable slopes that endanger existing structures or threaten public health be designed to be the least environmentally damaging alternative, and incorporate maximum feasible mitigation measures; and, incorporate Best Management Practices (BMPs) to control drainage and erosion.

Standards are included which provide for allowable uses in floodway zones; and, where feasible, requires that development be sited outside of FEMA designated special flood hazard areas and potential tsunami inundation zones or, where it is not feasible, development shall conform to specific siting and construction requirements. Said requirements include anchoring structures, using flood resistant materials, elevating

structures above flood levels, siting on-site waste disposal systems to avoid impairment or contamination from flooding, and siting and designing new development to not require the construction or installation of flood protective works, including bank protection or channelization.

All development located entirely or partially within a designated Earthquake Fault Zone as identified by the Alquist-Priolo Earthquake Fault Zone Act or a zone of required investigation for liquefaction or earthquake-induced landslides as identified by the Seismic Hazard Zone Mapping Act are required to demonstrate compliance with said Acts. The development standards prohibit land divisions unless it can be demonstrated that all proposed parcels will be safe from flooding, erosion, geologic and extreme fire hazards and that a safe, legal, all-weather access road can be constructed in conformance with all applicable policies of the LCP including applicable fire safety regulations.

Development standards relative to wildfire hazards, specifically, require that new development utilize design and construction techniques and materials that minimize risks to life and property from fire; and, incorporate fuel modification and brush clearance techniques in compliance with applicable LCP and L.A. County fire safety requirements and be designed and carried out to minimize clearance of natural vegetation and minimize impacts to environmentally sensitive habitat to the maximum extent feasible. All new development is required to utilize fire-retardant, native plant species, to provide for emergency vehicle access and adequate water supply for fire protection.

Finally, development standards provide for permitting emergency actions to repair, replace, or protect damaged or threatened development; and, where applicable, requirements for recorded deed restrictions whereby the applicant assumes the risk of development and waives any future claims of damage or liability against the City arising from any future damage, injury, or destruction from hazards subsequent to approval and construction.

Based on the findings above, the Commission finds that the policies contained in the City of Malibu LCP Implementation Plan relative to geologic, flood and fire hazards conform with and are adequate to carry out, the provisions of the adopted Land Use Plan.

5. Shoreline Development

The Malibu Coast has historically been subject to substantial damage from storm wave and flood impacts – most recently, and perhaps most dramatically, during the 1998 severe El Nino winter storm season. Past occurrences have caused property damage resulting in public costs through emergency responses and low-interest, publicly-subsidized reconstruction loans in the millions of dollars in the Malibu area alone. Substantial evidence exists that all beachfront development in Malibu is subject to an

unusually high degree of risk due to storm waves and surges, high surf conditions, erosion and flooding.

In the winter of 1977-78, storm-triggered mudslides and landslides caused extensive damage along the Malibu coast. According to the National Research Council, damage to Malibu beaches, seawalls, and other structures during that season caused damages of as much as almost $5 million to private property alone. The El Nino storms recorded in 1982-83 combined high tides of over 7 feet, with storm waves of up to 15 feet. These storms caused over $12.8 million to structures in Los Angeles County, many located in Malibu. The severity of the 1982-1983 El Nino storm events are often used to illustrate the extreme storm event potential of the California, and in particular, Malibu coast. The 1998 El Nino storms also resulted in widespread damage to residences, public facilities and infrastructure along the Malibu coast.

Past Commission review of shoreline residential projects in Malibu has also shown that such development results in potential individual and cumulative adverse effects to coastal processes, shoreline sand supply, and public access. Shoreline development, if not properly designed to minimize such adverse effects, may result in encroachment on lands subject to the public trust (thus physically excluding the public); interference with the natural shoreline processes necessary to maintain publicly-owned tidelands and other public beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with public access to and the ability to use public tideland areas. In order to accurately determine the adverse effects to coastal processes and public access which may result from proposed development, it is necessary to analyze the development in relation to characteristics of the project site shoreline, location of the development on the beach, and wave action.

One of the main functions of a shoreline protective device such as a seawall or revetment is the protection of the property or structures landward of the protective device. While they are often effective in protecting the landward development, however, they do nothing to protect the beach seaward of the revetment or seawall and can often have adverse effects on the nearby beach. These adverse effects ultimately cause additional adverse effects on the availability of public access to a beach. Scouring and beach erosion resulting from construction of a seawall or rock revetment will translate into a loss of beach sand at an accelerated rate. The resultant sand loss will be greater during high tide and winter season conditions than would otherwise occur if the beach were unaltered. In addition, as wave run-up strikes the face of the protective device and is deflected seaward, wave energy is concentrated at the face of the wall and ocean conditions along the beach will become more turbulent than would otherwise occur along an unarmored beach. The increase in turbulent ocean conditions along the beach will accelerate displacement of beach sand where the seawall is constructed over time.

The effects of shoreline protective devices on a beach has been documented in numerous past permit decisions by the Commission in Malibu and elsewhere along the California shoreline. The Commission has found that one of the most critical factors

controlling the impact of a shoreline protective device on the beach is its position relative to the surf zone. All other things being equal, the further seaward the wall is, the more often and more vigorously waves interact with it. The best place for a seawall or revetment, if one is necessary, is at the back of the beach where it provides protection against the largest of storms. By contrast, a seawall constructed too near to the mean high tide line may constantly create problems related to frontal and end scour, as well as upcoast sand impoundment. Even though the precise impact of a structure on the beach is a persistent subject of debate within the discipline of coastal engineering, it is generally agreed that a shoreline protective device will affect the configuration of the shoreline and beach profile whether it is a vertical seawall or a rock revetment. It has been well documented by coastal engineers and coastal geologists that shoreline protective devices will adversely impact the shoreline as a result of beach scour, end scour (the beach area at either end of the structure), the retention of potential beach material behind the wall, the fixing of the back beach, and the interruption of longshore processes.

An additional concern relative to shoreline erosion is the phenomenon of sea level rise. There is a growing body of evidence that there has been a slight increase in global temperature and that an accelerated rate of sea level rise can be expected to accompany this increase in temperature. Mean water level affects shoreline erosion in several ways and an increase in the average sea level will exacerbate shoreline erosion. For fixed structures on the shoreline, such as residences or protective devices, an increase in sea level will increase the extent and frequency of wave action and future inundation of the structure.

Accompanying this rise in sea level will be increased wave heights and wave energy. Along much of the California coast, ocean bottom depth controls nearshore wave heights, with bigger waves occurring in deeper water. A small increase in wave height can cause a significant increase in wave energy and wave damage. Combined with a physical increase in water elevation, a small rise in sea level can exposed previously protected back shore development to both inundation and wave attack, and those areas that are already exposed to wave attack will be exposed to more frequent wave attack with higher wave forces. An additional concern is that climatic changes associated with global warming and sea level rise could cause changes to storm patterns and wave activity for the entire coast. It is quite possible that some portions of the coast will experience more frequent storms. For these additional reasons to minimize future storm damage and to protect public access, it is important that new development along the shoreline, including shoreline protective devices, be located as far landward as feasible in order to minimize wave attack with higher wave forces as sea level rises over time.

In past permit actions in Malibu the Commission has found the protective devices can be permitted to protect existing structures or new structures which constitute infill development only when designed and engineered to eliminate or mitigate adverse impacts on the shoreline. In some cases the Commission has determined that in

certain beach areas largely committed to residential development with shoreline protective devices, it may be appropriate to allow construction of new shoreline protective devices that tie into adjacent existing seawalls or revetments. Both the "District Interpretive Guidelines" for Malibu and the Santa Monica Mountains adopted by the Commission in 1981 and the Malibu/Santa Monica Mountains Land Use Plan certified by the Commission in 1986 contained a "stringline" policy for the siting of infill development. The stringline policy requires that no portion of a proposed new structure, including decks, seawalls and revetments, shall extend further seaward than an imaginary line drawn between the nearest adjacent corner of similar adjacent structures on either side of the development site. The stringline policy is limited to infill development only in existing developed shoreline areas in order to limit seaward encroachment of new structures, including protective devices, on a beach.

a. Land Use Plan Policies

Shoreline development is subject to any of the policies discussed above under General Development relative to hazards, including storm waves and flooding which may be applicable. In addition, the proposed LUP requires that all applications for new development on a beach or blufftop include a wave uprush report and analysis (4.16) and a site map that shows all easements, deed restrictions or OTDs or other dedications for public access or open space (4.17). Policy 4.17 also requires that any approved development must be located outside of and consistent with the provisions of such easement offers. To address the ongoing problems associated with coastal erosion policy 4.18 recommends that City-wide or beach specific Shoreline Management Plans be developed which address a number of variables and parameters for alternatives to seawalls and revetments in order to protect the shoreline and maintain beaches and sand supply.

In addition to the policies discussed above relative to shoreline development, the LUP contains a number of policies which specifically address the problems and issues associated with shoreline erosion and the construction of protective devices on a beach. Many of the policies discussed below, and some of those previously discussed, are recommendations for future actions and not mandatory requirements. Regardless, they represent recognized and/or effective measures or policy approaches to address particular issues or problems.

Policy 4.19 recommends that a program be developed in conjunction with state and federal agencies to provide incentives to relocate development out of hazardous areas and to acquire oceanfront properties severely damaged by storms when relocation of development on the site is not feasible. Policy 4.20 recommends coordination with other responsible public agencies to fund and establish a program for periodic sand nourishment and 4.21 allows the placement of sediments removed from erosion control or flood control facilities along the shoreline for beach nourishment subject to suitability

requirements and measures to minimize or eliminate impacts to beach, intertidal and offshore resources.

The LUP requires that siting and design of new shoreline development including protective devices take into account anticipated future changes in sea level (4.22), and that new development on a beach or bluff be sited outside areas subject to hazards during the projected 100 year economic life of the development and/or be elevated above the base flood elevation and set back as far landward as possible (4.23). Policy 4.32 provides for developing "soft solutions" to protect existing development such as dune restoration and sand nourishment as an alternative to the placement of shoreline protective structures on Broad Beach and other appropriate beaches.

In addition, the LUP provides for State Lands Commission review and approval, where applicable (4.24), erosion and runoff control measures during construction (4.26), and blufftop setbacks and development prohibitions to ensure structural safety and prevent runoff and erosion (4.27-4.29). Policies 4.30 and 4.31 provide for infill development and utilization of a stringline to determine the maximum extent of seaward development, where applicable.

The Land Use Plan provides that new development, including land divisions, new beachfront and blufftop structures, significant additions, accessory structures, and septic systems be sited and designed to minimize risks from wave hazards and to avoid the need to construct a protective device for the life of the development (4.33 – 4.38). When it is determined that a shoreline protective device is necessary, the LUP requires that it be constructed as far landward as feasible, but, in no circumstance, further seaward than a stringline drawn between the nearest adjacent corners of protective devices on adjacent lots (4.39). Policy 4.40 states that a "vertical" seawall shall be the preferred means of protection for existing structures built at sand level. Rock revetments may be allowed when constructed underneath existing foundations or determined to be the preferred alternative in a "Shoreline Management Plan" for a particular beach and policy 4.41 provides for the repair and maintenance of existing shoreline protective structures.

Due to the extreme hazards associated with development on a beach or coastal bluff, the LUP requires property owners, as a condition of coastal development permits, to acknowledge and assume such risks and to waive any future claims against the permitting agency (4.42); to acknowledge that future repairs or additions to a shoreline protective device shall not extend the footprint seaward (4.43); and, in certain circumstances, where geologic and engineering evaluations conclude that development can be sited and designed to not require a shoreline protective device, to waive any future rights to construct such devices (4.44).

Based on the findings above, the Commission finds that the policies contained in the City of Malibu adopted Land Use Plan relative to shoreline development and hazards

meet the requirements of and are in conformity with Sections 30235 and 30253 of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

Many of the LUP policies concerning shoreline development are carried out by Chapter 9 in the LIP discussed in the previous section. In addition, policies contained in the Land Use Plan applicable to new development on or along the shoreline and coastal bluffs are implemented by the Shoreline and Bluff Development Ordinance, Chapter 10 in the LIP. To implement the LUP the Ordinance provides development standards, permit and application requirements, and other measures to ensure that new development permitted on or along the shoreline and bluffs is (1) sited and designed to minimize risks, assure stability and structural integrity and not create or contribute significantly to erosion or adverse impacts on public access or shoreline sand supply; (2) that new development is sited and designed to not require the construction of protective devices and, (3) that shoreline protective devices required to protect existing structures or public beaches in danger from erosion are sited and designed to eliminate or mitigate adverse impacts on shoreline sand supply (10.1). The policies, standards, and provisions of Chapter 10 of the LIP are applicable to all development requiring a CDP including a shoreline protective device on any parcel of land located on or along the shoreline, a coastal bluff or bluff-top fronting the shoreline (10.2). Where applicable, CDPs shall be conditioned to require compliance with any policy, standard, or provision contained in the Ordinance.

Similar to the Hazards Ordinance (Chapter 9), the Shoreline and Bluff Development Ordinance requires that written findings of fact, analysis and conclusions be included to support all approvals, conditional approvals, or denials of development on sites located on or along the shoreline or a coastal bluff which address the specific project impacts on public impacts or shoreline sand supply or other hazards relative to the applicable development standards included in Section 10.4 of the Ordinance (10.3). The finding shall include the basis for conclusions and be supported by substantial evidence in the record. The Ordinance provides that the proposed development shall be modified, by special condition, or required to incorporate other methods to avoid or minimize adverse impacts where necessary and that the findings explain how the special condition(s) alleviate or mitigate the identified adverse effects.

Development standards are included in Chapter 10 to address the siting and design of new shoreline and bluff development including shoreline protective devices(10.4). The standards require that new development take into account anticipated future changes in sea level. In particular, increases in the historic rate of sea level rise and its potential impact on beach and bluff erosion, and shoreline retreat shall be evaluated and development is required to be set back and elevated to eliminate or minimize hazards associated with anticipated sea level rise over the expected 100 year economic life of the structure. In addition, the standards require that new development on a beach or bluff be sited outside of areas subject to hazards such as erosion, inundation, and wave

run-up during the projected economic life of the development. Where complete avoidance is not possible, the standards provide that new beach or bluff development be elevated above the FEMA Base Flood Elevation and sited as far landward as feasible. A minimum setback of 10 feet landward of the most landward surveyed mean high tide line is established and whichever setback method is most restrictive shall apply.

The development standards require that new development on a bluff top be set back from the bluff edge a sufficient distance to ensure that it will not be endangered or threatened by erosion or slope instability for the projected life of the development. The standards establish a minimum setback of 100 feet, however, the setback may be reduced to 50 feet if specified conditions can be met as determined by City geotechnical staff. The setback requirement applies to the principle structure and accessory structures such as guesthouses, pools, tennis courts, cabanas, and septic systems. Ancillary structures such as decks, patios and walkways that do not require structural foundations may extend to a minimum distance of 15 feet from the bluff edge but must be removed or relocated landward if threatened by erosion.

The development standards require that slope stability analyses and erosion rate estimates be performed by a licensed Certified Engineering Geologist, Geotechnical Engineer or Civil Engineer. The analysis shall address such criteria as factor of safety, bluff retreat rate, earthquake effects, shear strength, groundwater conditions, planes of weakness, etc. The standards also establish criteria for construction of swimming pools and prohibit the construction of any permanent structures on a bluff face, except for engineered stairways or accessways to provide public beach access or drainage devices constructed in compliance with applicable BMPs.

The development standards provide that in existing developed areas where new beachfront development, excluding a shoreline protective device, is found to be infill (see definitions) and is otherwise consistent with the policies of the LCP, a new residential structure shall not extend seaward of a stringline drawn between the nearest adjacent corners of the nearest adjacent residential structures on either side of the subject lot. The stringline policy applies to enclosed area and decks separately. Infill development is also required to be set back a minimum of 10 feet landward from the most landward surveyed mean high tide line and the most restrictive setback method shall apply.

All new beachfront and bluff top development, including infill development, is required to be sized, sited, and designed to minimize risks from wave run-up, flooding, and erosion without requiring a shoreline protection structure at any time during the life of the development. New development on a beach or bluff is also required to utilize a secondary treatment waste disposal system and site such systems as far landward as possible to avoid the need for protective devices to the maximum extent feasible.

The standards provide that shoreline and bluff protection structures shall not be permitted to protect new development, except where necessary to protect a new septic system and there is no feasible alternative location on the site. Protective structures may be permitted to protect existing structures legally constructed prior to the effective date of the Coastal Act or that were legally permitted prior to certification of the Malibu LCP and where it is demonstrated that existing structures are at risk from erosion and that the protective structure is the least environmentally damaging alternative and designed to eliminate or mitigate adverse impacts to shoreline sand supply and public access. For purposes of this policy "existing structures" include only enclosed buildings use for living space or required parking such as residential dwellings, guesthouses, and garages and do not include such accessory structures as decks, patios, pools, cabanas, tennis courts, stairs and landscaping. No shoreline protective device shall be permitted to protect an accessory or ancillary structure and such structures shall be removed or relocated landward (and designed accordingly) if determined to be threatened from erosion, flooding or wave run-up. The standards also provide that land divisions, which create new beach or blufftop lots, shall not be permitted unless it can be shown that the proposed new lots can be developed without requiring a shoreline protective device at any time during the 100-year economic life of the structure.

The development standards require that any proposed shoreline protective structures be sited as far landward as feasible regardless of the location of protective structures on adjacent lots but in no case shall it be located further seaward than a stringline drawn between the nearest adjacent corners of protective structures on adjacent lots. The standards also provide that a "vertical" seawall or bulkhead shall be the preferred means of protection but that rock revetments may be permitted where they can be constructed underneath raised foundations or where they are determined to be the preferred alternative.

Finally, the development standards provide that on any beach found to be appropriate, alternative "soft solutions" such as dune restoration, sand nourishment, and design criteria such as maximum setbacks and raised foundations should be required as the preferred alternative to protective structures where feasible. The standards permit the placement of sediments removed from erosion control or flood control facilities at appropriate points along the shoreline for beach nourishment provided that they meet U.S. Army Corps criteria for grain size, color and contamination.

The Shoreline and Bluff Development Ordinance also contains application submittal requirements to implement the requirements of the Land Use Plan (10.5). Applications for new development on a beach or blufftop property is required to include an analytical report addressing erosion, wave run-up, inundation and flood hazards prepared by a licensed Certified Engineering Geologist, Geotechnical Engineer or Registered Civil Engineer. Applications for new beach or blufftop are also required to include a site map that shows all easements, deed restrictions, Offers to Dedicate, or any other dedications for public access or open space. Any approved development shall be located outside of and be consistent with the provisions of such easements or offers. Applications are

also required to include written evidence of a review and determination from the State Lands Commission relative to the project's location to or impact upon the boundary between public tidelands and private property. Applications shall not be approved if the State Lands Commission determines that the proposed development is located on public tidelands or would adversely impact tidelands unless State Lands Commission approval is given in writing. Unless the State Lands Commission determines that there is no evidence that the proposed development will encroach on wetlands or other public trust lands, the City must reject the application on the ground that the site is within the original permit jurisdiction of the Coastal Commission.

Further, the LIP ordinance includes requirements for recorded documents and deed restrictions to be included as conditions of approval for development on a bluff, beach or shoreline that is found to be subject to wave action, erosion, flooding, landslides, or other hazards. These required documents include an assumption of risk or waiver of liability, a waiver of any future right to repair, maintenance, enhancement, or reinforcement of a shoreline protective device that extends the seaward footprint of the subject structure. In addition, new development approved on a beachfront or bluff-top lot, sited and designed to not require a shoreline protective structure at any time during the life of the project based on geologic or engineering evaluations, shall be conditioned to record a deed restriction that waives any future right to construct a shoreline protective structure.

Based on the findings above, the Commission finds that the policies contained in the City of Malibu LCP Implementation Plan relative to hazards and shoreline development, including protective structures, conform with and are adequate to carry out, the provisions of the adopted Land Use Plan.

6. Fire Hazards

Section 30253 of the Coastal Act also requires that new development minimize the risk to life and property in areas of high fire hazard. The Coastal Act recognizes that new development may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to establish who should assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his property.

As previously noted, fire is an inherent threat to the indigenous chaparral community of the Santa Monica Mountains. The long, dry season in combination with frequent "Santa Ana" winds, buildup of vegetation to provide fuel for fire, steep canyon terrain and hillsides, inappropriate development siting and design, and often inadequate access combine to provide a climate which provides extreme fire hazards for several months out of each year.

Vegetation in the coastal areas of the Santa Monica Mountains consists mostly of native coastal sage scrub and chaparral. Many plant species common to these communities produce and store terpenes, which are highly flammable substances (Mooney in Barbour, Terrestrial Vegetation of California, 1988). Chaparral and sage scrub communities have evolved in concert with, and continue to produce the potential for, frequent wild fires. The typical warm, dry summer conditions of the Mediterranean climate combine with the natural characteristics of the native vegetation to pose a risk of wild fire damage to development that cannot be completely avoided or mitigated.

As a result of the hazardous conditions that exist for wildfires in the Santa Monica Mountains area, the Los Angeles County Fire Department requires the submittal of fuel modification plans for all new construction to reduce the threat of fires in high hazard areas. Typical fuel modification plans for development within the Santa Monica Mountains require setback, irrigation, and thinning zones that extend 200 feet from combustible structures. Off-site fuel modification is generally not recommended due to problems inherent with enforcement of regulations on adjacent property and the potential for confusion regarding responsibility for fuel modifications outside legal ownership. In numerous past actions to permit development on existing legal lots and occasional subdivisions in the Santa Monica Mountains, the Commission has required applicants to comply with County Fire Department fuel modification landscaping requirements while minimizing the removal of natural vegetation and to assume the risk of developing in high fire hazard areas.

a. Land Use Plan Policies

The Land Use Plan requires that new development minimize risks to life and property from fire hazard by considering site specific characteristics in siting and designing structures to avoid hazardous locations, by incorporating County fuel modification and brush clearance techniques, and by using fire-retardant, native plant species in landscaping (4.45-4.46). To minimize or prevent brush clearance in parklands or sensitive habitat areas, the LUP requires that development be sited to avoid such areas to the maximum feasible extent and/or to use brush clearance measures and techniques which minimize removal of natural vegetation and impacts to sensitive environmental resources while providing adequate fire safety (4.46-4.49). In addition, the LUP requires that new development provide for emergency vehicle access, adequate water supply and line flow and to comply with County fire management programs (4.50-4.52). Policy 4.54 provides that should L.A. County Fire Department policies regarding fuel management and fire protection conflict with any policies or provisions of the adopted LCP, personnel from the Fire Department and the City shall meet and agree on measures to balance the need for fire protection with the need to protect environmental resources.

Based on the findings and policies discussed above, the Commission finds that the policies contained in the City of Malibu adopted Land Use Plan relative to fire hazards

meet the requirements of and are in conformity with Section 30253 of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

Development standards contained in the Hazards Ordinance, Chapter 9 in the LIP, relative to wildfire hazards, specifically, require that new development utilize design and construction techniques and materials that minimize risks to life and property from fire; and, incorporate fuel modification and brush clearance techniques in compliance with applicable LCP and L.A. County fire safety requirements and be designed and carried out to minimize clearance of natural vegetation and minimize impacts to environmentally sensitive habitat to the maximum extent feasible. All new development is required to utilize fire-retardant, native plant species, to provide for emergency vehicle access and adequate water supply for fire protection.

Based on the above, the Commission finds that the policies contained in the City of Malibu LCP Implementation Plan relative to fire hazards conform with and are adequate to carry out the policies of the adopted Land Use Plan.

7. Emergency Actions and Response

The Land Use Plan recognizes that emergency actions which require quick response are often necessary in certain situations such as fires, storm caused flooding, landsliding and wave damage. In many of these situations the immediacy of the response makes it impractical, if not impossible, to obtain a coastal permit prior to taking action even though the response may meet the Coastal Act definition of development. The Coastal Act recognizes that such conditions occur and such responses are often necessary in the Coastal Zone and provides for certain exemption from permit requirements or the issuance of an emergency permit to address these situations.

a. Land Use Plan Policies

The Land Use Plan contains policies which address emergency actions. Policy 4.55 provides for emergency actions to repair, replace, or protect damaged or threatened development including public works facilities, that such action be the minimum needed to address the emergency, and, to the maximum feasible extent, be the least environmentally damaging alternative. A regular permit application is required as a follow-up to all emergency actions . The LUP also requires that emergency permits be conditioned to obtain a regular follow-up permit or that the development to relieve the emergency be removed within a reasonable period of time. In order to facilitate the identification of unpermitted shoreline protection structures, in particular, which are constructed with greater frequency during severe winter storm seasons, the LUP provides for the development of a permit tracking and monitoring system, including inspection (4.57).

Based on the discussion provided the Commission finds that the policies contained in the draft Land Use Plan relative to hazards and shoreline/bluff development emergency actions meet the requirements of and conform to Sections 30235 and 30253 of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

Development standards in Chapter 9 and the CDP Ordinance, Chapter 13 in the LIP provide for permitting emergency actions to repair, replace, or protect damaged or threatened development; and, where applicable, requirements for recorded deed restrictions whereby the applicant assumes the risk of development and waives any future claims of damage or liability against the City arising from any future damage, injury, or destruction from hazards subsequent to approval and construction.

Based on the above provisions, the Commission finds that the policies contained in the City of Malibu LCP Implementation Plan relative to emergency actions conform with and are adequate to carry out the applicable provisions of the adopted Land Use Plan.

F. New Development

1. Coastal Act Provisions

The Coastal Act requires the protection of coastal resources, including public access, land and marine habitat, and scenic and visual quality. Focusing new development to areas in close proximity to existing development with available public services serves to minimize the impacts of remote "leap-frog" development that would require the construction of roads, utilities, and other services. Section 30250 of the Coastal Act requires that new residential, commercial, or industrial development is located near existing developed areas, and where it will not have significant adverse impacts, either individually or cumulatively on coastal resources. Additionally, Section 30250 establishes that land divisions outside existing developed areas can only be permitted where fifty percent of existing parcels have already been developed and that the new parcels are no smaller than the average size of existing parcels. Section 30244 requires the protection of archaeological and paleontological resources and the implementation of mitigation measures to avoid or minimize any impacts.

2. Coastal Act Policies

Section **30250** of the Coastal Act states that:

> New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

Section **30244** of the Coastal Act states that:

> Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

3. Density and Intensity of Use

In order to ensure that new development is located in areas able to accommodate it and where it will not have significant cumulative impacts on coastal resources, as required by Section 30250 of the Coastal Act, it is necessary for the LCP to designate the appropriate location, density, and intensity for different kinds of development. Such designations must also take into account the requirements of other applicable policies of Chapter 3 of the Coastal Act, including public access, recreation, land and marine resources, and scenic and visual quality.

a. Land Use Plan Designations

The LUP provides parameters for new development within the City. The LUP Land Use Map shows the land use designation for each property. The land use designation denotes the type, density and intensity of new development that may be permitted for each property, consistent with all applicable LCP policies. An overlay is applied to the Civic Center area (as shown on LUP Land Use Map No. 5) that provides for a specific plan or other comprehensive plan, pursuant to Policies 5.15 through 5.19.

There are four categories of commercial use:

Commercial Neighborhood (CN): The CN designation is intended to provide for low intensity commercial activity to the residents in the surrounding neighborhoods.

Community Commercial (CC): The CC designation is intended to provide for the resident serving needs of the community similar to the CN designation, but on parcels of land more suitable for concentrated commercial activity.

Commercial Visitor Serving (CV): The CV designation provides for visitor serving uses such as hotels and restaurants that are designed to be consistent with the rural character and natural environmental setting. Uses allowed in the other commercial categories may be permitted on the upper story of visitor serving commercial structures so long as the ground floor of such structures are limited to only visitor serving uses.

Commercial General (CG): The CG designation provides for more intense commercial uses, visitor-serving uses and light industrial uses located on larger sites.

The Commercial Recreation (CR) designation allows for facilities open to the public that are utilized for low intensity recreational use and athletic activities characterized by large open space areas with limited building coverage such as summer camps, hiking, equestrian, and tennis, and includes provision of food and beverage service for participants.

The Institutional (I) category accommodates existing public and quasi-public facilities in the City. This designation includes permitted and conditional uses such as educational institutions, government facilities, libraries, community centers, and religious institutions.

There are five categories of residential use:

Rural Residential (RR): The RR designation allows large lot single-family residential development, with a range of maximum densities from one dwelling unit per acre to one dwelling unit per 40 acres. Minimum lot sizes range from 1 to 40 acres, with agricultural uses and animal keeping permitted as accessory uses to approved residential development. The maximum residential density is provided according to the following subcategories:

RR1	One dwelling unit per acre
RR2	One dwelling unit per 2 acres
RR5	One dwelling unit per 5 acres
RR10	One dwelling units per 10 acres
RR20	One dwelling unit per 20 acres
RR40	One dwelling unit per 40 acres

Single-Family Residential (SF): This land use designation allows single-family residential development at a higher density than the rural residential category. Single-Family Low (SFL) allows a maximum density of 2 dwelling units per acre, with a minimum lot size of 0.5 acre. Single-Family Medium (SFM) allows a maximum density of 4 dwelling units per acre, with a minimum lot size of 0.25 acre.

Multi-Family Residential (MF): The MF designation provides for multi-family residential developments, such as duplexes, condominiums, stock cooperatives, and apartments. The Multi-family Residential (MF) designation allows a maximum density of six units per acre on a minimum lot size of 20,000 square feet.

Mobile Home Residential (MHR): The MHR designation is intended to accommodate existing mobile home parks and associated facilities.

The Private Recreational Facilities (PRF) category provides for existing private recreational facilities whose members have received exclusive use through deeded rights, property ownership or membership. The Public Open Space (OS) designation provides for publicly owned land which is dedicated to recreation or preservation of the City's natural resources, including public beaches, park lands and preserves. Allowable uses include passive recreation, research and education, nature observation, and recreational and support facilities. The Recreational Vehicle Park (RVP) designation provides for recreational vehicle parks and requires 10-acre minimum lot size. This designation only applies to the existing RV Park located north of Pacific Coast Highway at Corral Canyon.

These land use categories are based on those in the City of Malibu General Plan, with modifications. The designation of some properties has been changed to reflect their acquisition by local, state, or federal park agencies for public open space purposes. The land use designation for these properties has been changed from the various categories they were designated by the City General Plan to "Public Open Space" to reflect their new ownership status and park purpose. With regard to the residential land use categories, the LUP adds the RR40 designation, which is Rural Residential with a density maximum of one dwelling unit per 40 acres. This designation is applied to several parcels that contain steep terrain and contain large areas of habitat designated as ESHA. In several areas, the LUP applies a lower density residential designation than that designated by the City General Plan. These modifications were made to reflect the presence of steep slopes, limited road access, sensitive resources, and other development constraints. Finally, an area in the Civic Center designated "Community Commercial" (CC) and "General Commercial" (CG) by the City General Plan are designated "Visitor Serving Commercial" (CV-1) in the LUP. As discussed above, the Coastal Act requires that priority be given to visitor serving uses. The LUP clusters the areas designated for new visitor serving uses within the Civic Center area.

The Commission finds that Malibu LUP provides appropriate land use designations, including the LUP Land Use Map, that locate development in areas able to accommodate it, and where it will not have individual or cumulative impacts on coastal resources, including public access, recreation, land and marine resources, and scenic and visual quality. The land use designations, applied in combination with the other applicable policies of the Land Use Plan will meet the requirements and conform to Section 30250 and all other applicable Chapter 3 policies of the Coastal Act.

b. Local Implementation Plan Provisions

The Malibu LIP Zoning Map shows the zoning designations for each property within the City. The zoning designations shown on the Zoning Map are consistent with the Land Use designations of the Land Use Plan. Section 3.3 of the LIP provides the purpose, lot development criteria, and site development standards for each zoning district. These changes were made to ensure conformity with the policies of the Coastal Act and the Land Use Plan.

The permitted and conditionally permitted uses for each zoning district are shown in Table B, which is attached to the Malibu LIP and reference in Section 3.3 of the LIP. Staff would note that the City staff prepared this table in order to show the permitted uses in a chart format. For the most part, uses permitted for the various zoning districts in the LIP are based on the permitted and conditionally permitted uses of the City's Interim Zoning Code (although the Interim Zoning Code does not show these uses in a table). Where a permitted or prohibited use did not implicate Coastal Act or LUP policies or provisions, the LIP did not modify it. However, some modifications have been made to Table B with regard to permitted uses in commercial categories to reflect the Coastal Act priority for visitor serving commercial use. "Public Beach Accessway" as added as a permitted use in several zoning districts to ensure that public access may be provided to and along the coast, as required by the Coastal Act and the LCP. Finally, several notes were added to Table B to denote uses that are prohibited within ESHA, to indicate that non-visitor serving commercial uses may be permitted in the "Commercial Visitor Serving" zone only if at least 50 percent of the total floor area of a commercial project is devoted to visitor serving commercial use, and to note that certain uses are only permitted in the "Commercial Visitor Serving" zoning district if they are made available to the general public. These changes were made to ensure conformity with the policies of the Coastal Act and the Land Use Plan.

Chapter 3 of the LIP also provides general development standards, development standards for residential uses, commercial uses, special uses, landscaping and fuel modification, agricultural use and confined animal facilities, parking regulations, signs and wireless telecommunications facilities. Additionally, there are several overlay districts that provide alternative development standards for several existing developed areas of the City. The development standards contained in the City's IZO were used as the basis for Chapter 3 of the LIP. Where a development standard did not implicate any Coastal Act or LUP policies, the standard was not changed in the LIP. However, some development standards were modified or developed to ensure conformance with the policies of the Land Use Plan. Such modifications include, but are not limited to, stringline requirements, maximum development area within ESHA, second residential structures, maximum commercial floor area ratios for development within the Civic Center, landscaping requirements, agricultural uses, and confined animal facilities.

The Commission finds that the Malibu LIP, including the LIP Zoning Map, permitted uses and development standards, conforms to and is adequate to carry out the land use designations of the Malibu Land Use Plan.

4. General Land Use Provisions

The LUP provides general policies that are applicable to all new development projects. Approval of any coastal development permit must include written findings that the approved project is consistent with all Land Use Plan policies and Implementation Plan provisions of the City's certified LCP. The Environmental Review Board will review and make written recommendations regarding projects within or adjacent to ESHA to ensure that such projects are consistent with the policies of the LUP. The coastal development permit for development reviewed by the ERB shall include written findings relative to the project's conformance to the ERB's recommendations.

As part of all applications for new development on a vacant site, evidence must be provided that the parcel was legally created. Such evidence would include the date and method by which the parcel was created. If the parcel was not legally created or was created after the effective date of the Coastal Act without the approval of a coastal development permit, then a CDP authorizing the land division that created the parcel must be approved prior to the approval of any further development of the site. Policy 5.2 states that if there is a conflict between a provision of the LCP and a provision of the City's General Plan or other City-adopted plan, resolution, or ordinance, and it is not possible for development to comply with both the LCP and other such plan, the LCP shall take precedence and the development shall not be approved unless it complies with the LCP provision.

The Coastal Development Permit Ordinance (Chapter 13) of the Malibu LIP and other chapters address the findings required in the approval coastal development permits for various developments, including those that are reviewed by the ERB. Chapter 13 also details the information and materials that must be submitted as part of permit applications. Finally, Policy 5.2 of the LUP is implemented by Chapter 1 (Title, Purpose, and General Provisions).

The Commission finds that the general land use policies of the Malibu LUP (Policies 5.1-5.7) meet the requirements of and is in conformity with Section 30250 of the Coastal Act. The Commission further finds that the Malibu LIP conforms with and is adequate to carry out the general land use policies of the Land Use Plan.

5. Commercial Development / Civic Center Development

Existing commercial development flanks the Pacific Coast Highway from Topanga to Point Dume. The Malibu Civic Center, located at the base of Malibu Canyon, and Point Dume Plaza contain the major commercial areas. The Civic Center is the commercial

and social focal point in the City of Malibu. It is the principle area in the City where the general public and residents visit, and includes retail shops, restaurants, coffee shops and other commercial uses. While there are many constraints to development of the Civic Center, there is also great opportunity to achieve multiple beneficial goals. It consists of approximately 173 acres as shown on Land Use Map 5 which depicts the Civic Center Overlay Area; of this total, approximately 63 acres are developed and 110 acres undeveloped. The largest property owner is the Malibu Bay Company with approximately 47 acres in the Civic Center.

a. Land Use Plan Policies

The commercial development policies (Policies 5.8-5.14) provide for pedestrian and bicycle circulation to be provided within new commercial projects in order to minimize vehicular traffic. Visitor serving commercial uses shall be allowed in all commercial zones in the City and shall be given priority over other non-coastal dependent development. Adequate off-street parking must be provided for new commercial and other uses to ensure that on-street parking remains available to the public for beach access. Parking facilities approved for office or other commercial developments shall be made available for public beach parking on weekends and other times when the parking is not needed for the approved uses.

In policies 5.15 through 5.19 of the Malibu LCP Land Use Plan, the Commission is strongly encouraging the utilization of a specific plan or other comprehensive plan approach to guide development in the Malibu Civic Center. Any such specific plan or comprehensive plan would have to be developed with input from the general public and approved by the City and the California Coastal Commission as an amendment to the Local Coastal Program. Incentives have been included in the LCP to encourage a specific plan or comprehensive plan approach in the form of an increased Floor Area Ratio (FAR) for development. The LCP also limits development for two years, to provide the time needed for preparation of a specific plan or comprehensive plan for the Civic Center. Exceptions to the two year limitation on development includes improvements to existing uses as provided in policy 5.15 and uses that are visitor-serving or approved as part of a development agreement pursuant to a future LCP Amendment approved by the Coastal Commission. This allows the proposed Development Agreement between the City and the Malibu Bay Company that is currently undergoing environmental review to be implemented within this two year period subject to compliance with all other applicable LCP policies and standards.

The long term goal of a specific plan or other comprehensive plan for the Malibu Civic Center is to provide a planning tool to better evaluate issues and opportunities in the Civic Center related to land use, environmental conditions and constraints and infrastructure limitations. Such an approach allows for greater flexibility in considering where to concentrate and cluster development, where to provide park and open space and where natural resources can be enhanced. It potentially also allows for incentives

to promote greater open space through an increased Floor Area Ratio (FAR), and a different mix in the land uses. While the provision of recreational and visitor serving commercial uses in the Civic Center is a primary concern under the Coastal Act, the Coastal Commission recognizes that there are better ways to achieve this goal through a specific/comprehensive plan than on a parcel by parcel piecemeal basis. In addition, there has been considerable debate over the extent of any wetland and environmentally sensitive habitat that may be present in the Civic Center area, and a specific plan or comprehensive plan approach provides a better means of concentrating development away from any such areas than on an individual site project proposal basis.

While the base Floor Area Ratio (FAR) allowed in the Civic Center under the City's General Plan and the LCP is a relatively low 0.15 FAR, it would still allow potentially for upwards of a million square feet of total development in the Civic Center. In considering this development, it must be done so taking into account the constraints in the Civic Center area, including environmental constraints. The Commission finds that through a specific plan or other overall plan, a comprehensive set of standards for land use, development design, public improvements, open space and habitat protection/enhancement can be enacted that will provide greater public amenities and visitor services and will minimize adverse impacts on traffic, public access to the beach and visual qualities of the area. In addition, issues related to drainage and runoff, sewage disposal, flood hazard, joint use of parking and a pedestrian scale of development could be better addressed. All of these issues are important in the Civic Center, and the Commission finds that every effort should be made to encourage a single comprehensive plan that provides for a unified approach to dealing with these important issues. The Commission finds that requiring a two year period during which no major new development (other than the exceptions cited in policies 5.15 and 5.16 discussed above) can take place in the Civic Center and that allows for the City and affected property owners to develop a specific plan or comprehensive plan is appropriate since it would clearly allow greater flexibility for an overall preferable solution, consistent with Sections 30213, 30222, 30236, 30240, 30250, 30251, 30252 and 30253 of Chapter 3 of the Coastal Act as compared to a parcel by parcel piecemeal approach to development within this critical commercial area. The Commission notes that there is an approved coastal development permit for a hotel that has not yet been built on several parcels (owned by the Adamson Co.) in the western area of the Civic Center; the specific plan or comprehensive plan could include this development.

It should be recognized that the Malibu Bay Company and the City have been in the process of preparing a development agreement affecting its properties both within and outside the Civic Center. Although a development agreement does not include all the Civic Center properties and may not provide the same level of flexibility and opportunity from a planning perspective as a specific plan or comprehensive plan for the Civic Center would achieve, a development agreement would be preferable to a site by site piecemeal approach. Recognizing that the development agreement could provide added public benefits in relation to Coastal Act policies, the Commission does find that a development agreement that includes the provision of visitor-serving uses will provide

a comprehensive and flexible planning approach to future development within the Civic Center. Policy 5.18, in recognizing the beneficial public aspects of a planned development or development agreement, provides for an allowable increase in the maximum FAR from 0.15 to 0.20.Further, the Commission finds that any development agreement, planned development or development agreement would need to be submitted to the Commission for review as a LCP amendment pursuant to policy 5.19 in order to evaluate the land uses and public benefits in relation to the increased FAR.

In conclusion, while the Malibu LCP provides the underlying land use designation for all properties in the Civic Center consistent with the policies of the Coastal Act, it is recognized that there would be substantial enhancement to coastal resources if an overall specific plan, development agreement or comprehensive plan was developed that allowed greater flexibility in dealing with the myriad of issues that affect development in the Civic Center. The City would gain by having a clear vision as to the future of the Civic Center, the affected property owners would gain by potentially having more desirable development in relation to the overall development of the Civic Center and an increased Floor Area Ratio, and the general public would gain by the overall standards that would apply to future Civic Center development including greater open space and possibly habitat enhancement. The Commission finds that a specific plan, development agreement or comprehensive plan for this critical area would meet the intent of Section 30001.5 of the California Coastal Act of 1976 which states:

> The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:
>
> (a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.
> (b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.
> (c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
> (d) Assure priority for coastal-dependent and coastal related development over other development on the coast.
> (e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

The Commission finds that the commercial development policies (Policies 5.8-5.14) and the provisions in the LCP related to preparation of a specific plan or other comprehensive plan for the Civic Center area is in conformance with Section 30001.5 of the Coastal Act, and as previously noted, meet the requirements of and are in conformance with the applicable policies of Chapter 3 of the Coastal Act.

b. Local Implementation Plan Provisions

The Malibu LIP implements the commercial development policies of the Land Use Plan. Chapter 3 of the LIP details the commercial zone designations as well as the general commercial development standards. Section 3.8(A)(5) of the Local Implementation Plan sets forth the requirements regarding a specific plan or other comprehensive plan for the Civic Center area.

The Commission finds that the Local Implementation Plan conforms with and is adequate to carry out the Land Use Plan Commercial Development Policies (Policies 5.8-5.14) and the Civic Center Policies (Policies 5.15-5.19).

6. Residential Development

Pursuant to Coastal Act Sections 30250 and 30252 cited above, new development raises issues relative to cumulative impacts on coastal resources. As described above, it is necessary to establish the maximum density and intensity of development to ensure that impacts on coastal resources are minimized. The majority of land in the City is designated for residential use.

In addition to designation of residential density standards, it is necessary to also consider other ancillary development that may be developed in residential areas. Construction of accessory structures, particularly a second residential unit, on a site where a primary residence exists intensifies the use of the subject parcel. The intensified use creates additional demands on public services, such as water, sewage, electricity, and roads. Thus, additional structures pose potential cumulative impacts in addition to the impacts otherwise caused by the primary residential development.

With regard to the maximum size of secondary structures, the Commission has consistently limited the size of second residential units (including guest houses) on residential parcels in the Malibu and Santa Monica Mountain areas. The Commission has found that placing an upper limit on the size of second residential units was necessary given the traffic and infrastructure constraints which exist in Malibu/Santa Monica Mountains area and given the abundance of existing vacant residential lots. Furthermore, in allowing these small units, the Commission found that the small size of units would ensure that they are likely to be occupied by one, or at most two people, serving to minimize any adverse impact on the limited capacity of Pacific Coast Highway and other roads (as well as infrastructure constraints such as water, sewage, and electricity), as compared to the development of the equivalent of a second single family residence. A size limitation encourages the units to be used for their intended purpose, as a guest unit, or "granny unit", rather than as a second residence or rental

unit, which would have greatly intensified demands on coastal resources and community infrastructure.

a. Land Use Plan Policies

The LUP policies address new residential development. All new residential development, including land divisions (subdivisions, lot line adjustments, and certificates of compliance) must conform to all of the applicable LUP policies, including density provisions. The residential density indicates the maximum number of units that could be allowed. It is not a guarantee. In order to ensure compliance with other applicable LCP policies or standards, the permitted density may be less than the maximum density indicated by the land use designation.

The maximum number of structures allowed by the LUP policies in a residential development is one main residence and one second residential structure (including second unit or guest house) of no more than 900 sq. ft. Other accessory structures including, but not limited to, stable, workshop, gym, studio, pool cabana, office, or tennis court may be permitted if they are located within the approved development area and are clustered to minimize required fuel modification. The LUP requires that a minimum of one on-site parking space must be provided for the exclusive use of any second residential unit. Finally, any proposed accessory structure that includes plumbing facilities must demonstrate that the project site can accommodate the additional sewage disposal.

b. Local Implementation Plan Provisions

Section 3.6 (N) of the Malibu LIP addresses uses accessory to residential development, including development standards for second residential units. The LIP requires that second units do not exceed 900 sq. ft., that they are located within the approved development area for the project site, and clustered with other structures in order to minimize required fuel modification. Development of a second residential structure requires that a primary residence is developed on the project site prior to or concurrent with the second residential unit.

The Commission finds that the Malibu LIP conforms with and is adequate to carry out the residential development policies (Policies 5.20-5.25) of the Malibu Land Use Plan.

7. Land Divisions

a. Land Use Plan Policies

The Coastal Act includes land divisions in the definition of development. Section 30601 states that "development" includes:

> "…. subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use …"

Because they constitute development, all land divisions must be authorized in a coastal development permit. (Section 30600). The LCP defines "land division" to include: "subdivisions (through parcel map, tract map, grant deed or any other method), lot line adjustments, redivisions, mergers and certificates of compliance except as provided in LUP Policy 5.40." (LUP Policy 5.32; LIP Ch. 2.1, General Definitions). This is intended to be a broad definition that includes any method used to divide land into separate parcels or to modify parcel boundaries. Lot line adjustments are "land divisions" that require a coastal development permit because they constitute "development" as defined in the Coastal Act. (*La Fe, Inc. v. County of Los Angeles* (1999) 73 Cal.App.4th 231).

The definition of development also includes certificates of compliance that grant authorization for a lot that was created through a land division that occurred previously but was illegal because it failed to comply with applicable state laws or local ordinances. An owner of property may request that the local government determine whether a parcel was created in conformance with the requirements of the Subdivision Map Act. After review, the local government may issue a certificate of compliance with or without conditions. Certificates of compliance recognize property as a separate legal parcel for purposes of conveyance, transfer or financing, but they do not grant any right to develop the parcel. There are three separate situations in which the issuance of a certificate of compliance may be requested:

1. Land division occurred prior to the effective date of the Coastal Act and lot was created in compliance with laws in effect at the time (LUP Policy 5.41).
2. Land division occurred prior to the effective date of the Coastal Act and lot was not created in compliance with laws in effect at the time (LUP Policy 5.42).
3. Land division occurred after the effective date of the Coastal Act without approval of a coastal development permit (LUP Policy 5.43).

In the first case described above, the certificate of compliance confirms that creation of the parcel already occurred legally prior to the Coastal Act; therefore, issuing the

certificate of compliance does not constitute "development" and does not require a coastal development permit. In the second and third instances, the action of issuing a certificate of compliance grants government authorization for a parcel that was previously created illegally, through means that did not comply with the laws in effect at the time. This type of certificate, for the first time, authorizes the land division that created a new parcel. Therefore it constitutes development under the Coastal Act, and requires a coastal development permit. A certificate of compliance in the second and third instances shall not be issued unless a coastal development permit that authorizes the land division is approved. The coastal development permit can only be approved if the land division is consistent with the policies of the LUP. Compliance with the LUP policies insures that the land division is consistent with the resource protection policies of Chapter 3 of the Coastal Act.

Numerous LUP policies require that land divisions minimize impacts to coastal resources and public access. Land divisions may not be approved if they would result in adverse impacts on coastal resources, such as water quality, wetlands and ESHA, which are protected under Sections 30230, 30231, 30233 and 30240. A land division cannot be approved unless every new lot created would contain an identified building site that can later be developed consistent with all policies and standards of the LCP. For example, a land division cannot be approved if geologic hazards make it unsafe to build on the proposed parcel or if development on the proposed parcel would destroy ESHA or block public views of a scenic area (Sections 30253, 30240 and 30251). Applications for land divisions must include plans depicting proposed grading, drainage, landscaping, conceptual fuel modification, and visual analysis for the proposed building pad and driveway for each proposed parcel. Additionally, a land division may not be approved unless there will be adequate services, such as sufficient water for each parcel and the ability to accommodate an on-site sewage disposal system. Land divisions must be designed to cluster development, to minimize landform alteration, to minimize site disturbance, and to maximize open space.

Furthermore, to implement Section 30250, the LUP provides that new parcels may not be approved that are smaller than the average size of surrounding parcels. Additionally, to comply with 30250, as well as numerous other policies of Chapter 3 of the Coastal Act, adverse impacts from the creation of new parcels must be mitigated. There are numerous existing undeveloped parcels in Malibu (in 1999, there were an estimated 1,370 such parcels) and development of these parcels alone would have significant adverse impacts on coastal resources, such as public access to the sea and recreation, which are protected by Section 30210 and 30211. Therefore, the LUP requires transfer of development credits that retire the development potential of existing parcels, to mitigate the cumulative impacts of approval of land divisions creating new parcels. The LUP requires that an expedited process for voluntary merger of parcels be included as part of the transfer of development credit program (Policy 5.31), to insure that the parcel where development potential is retired is combined or merged with another developable parcel, and this process is included in the LIP (Ch. 15.4).

Accordingly, the restrictions on new land divisions in the LUP, and the mitigation measures required for land divisions that can be approved under the LUP, are necessary to conform to the policies of Chapter 3 of the Coastal Act, including the policies cited above.

The Commission finds that the Land Division Policies of the Land Use Plan are consistent with Section 30250 of the Coastal Act.

b. Local Implementation Plan Provisions

Chapter 15 of the LIP contains the information requirements and findings that must be made to insure that land divisions are only approved when consistent with all LUP policies. The requirements for approval of all land divisions, except mergers and lot line adjustments, are set forth in Section 15.2.

The requirements for approval of certificates of compliance are set forth in Section 15.3. As stated above, a certificate of compliance for a land division that occurred prior to the Coastal Act and complied with state law and local ordinances in effect at the time does not require a coastal development permit. The documents that an applicant must submit so it can be determined whether a parcel was created in compliance with state laws and local ordinances, or whether the parcels were subsequently merged or altered, are set forth in Section 15.3 (B).

For a land division that occurred prior to the Coastal Act and did not comply with state law and/or local ordinances in effect at the time, a coastal development permit is required. Except in specific situations described below, a coastal development permit may be approved only if the land division being authorized is consistent with all the requirements set forth in Section 15.2 or the permit is conditioned to prohibit development on the parcel until compliance with all requirements of Section 15.2 is achieved. For a land division that occurred after the effective date of the Coastal Act and was not previously authorized in a coastal development permit, there has been a violation of the Coastal Act. A coastal development permit is required for a certificate of compliance recognizing such a land division and, except in specific situations described below, may only be approved if all requirements of Section 15.2 are met.

The LIP provides that a coastal development permit authorizing a land division for which a certificate of compliance is requested may be approved where the land division complies with all requirements of Section 15.2 *except the minimum parcel size*, in two situations: 1) where the Coastal Commission previously approved a permit for development on one of the parcels created from the same parent parcel, those parcels do not have a common owner, and the owner requesting the certificate of compliance acquired the parcel prior to certification of the LCP in a good-faith, arm's length transaction and 2) where the parcel for which the certificate is requested is not in common ownership with any other contiguous parcels created from the same parent parcel and the owner acquired the parcel prior to certification of the LCP in a good-faith,

arm's length transaction. (Sections 15.3 (C) and (D)). These provisions will prevent hardship to a subsequent purchaser, who was not the one who illegally subdivided the property and did not know or have reason to know that the parcel was created without compliance with the Coastal Act, if applicable, or other state laws or local ordinances. For all certificates of compliance that require a coastal development permit, a transfer of development credit is required to mitigate the cumulative impacts on coastal resources from creating a new parcel.

Section 15.4 addresses mergers. Section 15.4.1 includes expedited procedures and a reduced fee for voluntary merger of parcels. This simplified process allows merger of parcels when development rights on one of the parcels are retired to provide a transfer of development credit. This section also includes provisions that allow, but do not require, the City to initiate mergers of contiguous parcels held by the same owners, consistent with the applicable requirements of the Subdivision Map Act (Section 15.4.1A).

Section 15.5 contains requirements for approval of lot line adjustments. The goal of these provisions is to insure that lot line adjustments are only approved if the newly configured lots can be developed consistent with all LCP policies and standards. However, if the existing parcels do not currently meet this requirement, then a lot line adjustment may be approved if it does not increase the conflict with LCP policies and standards that will occur from development of the parcels. In addition, a lot line adjustment may not be approved if it will result in future development that necessitates removal of a greater amount of ESHA, increases the amount of landform alteration, or has greater adverse visual impacts, than would have occurred from development on the existing parcels.

Section 15.6 sets forth "slope/density criteria" that shall govern proposed subdivisions in the rural residential zone districts. These criteria are required by LUP Policies 5.7 and 5.38. The criteria are applied in combination with the base land use designation/zoning in order to determine the maximum allowable density (Section 15.6.2 and 15.6.3). The application of the slope density criteria results in reducing the overall density allowed on steeply sloping terrain.

The Commission finds that the Malibu LIP conforms to and is adequate to carry out the land division policies of the LUP.

8. Lot Retirement

Land divisions and the development of multi-family residential projects increase the number of parcels and/or the number of residential units that be built over the number of existing parcels in an area. The Commission has long recognized that adverse cumulative impacts to coastal resources would result from an increase in the overall number of parcels in the Malibu/Santa Monica Mountains coastal zone area, particularly given the large number of undeveloped parcels and the limited availability of urban

services. The Commission has consistently required the mitigation of the cumulative impacts of creating new lots through subdivision and of developing multi-family units by retirement of future development on existing parcels within the Santa Monica Mountains region. The retirement process is formalized as the Commission's Transfer of Development Credit (TDC) Program. The TDC program is implemented by the Commission through permit actions to mitigate the cumulative impacts caused by the existence of a large number of undeveloped parcels, the limited availability of public services, the impacts to major coastal access routes and the potential significant adverse environmental impacts that would result from developing the parcels and of providing services.

a. Background

In 1978, the report entitled "Cumulative Impacts of Potential Development in the Santa Monica Mountains Coastal Zone" was prepared for the Santa Monica Mountains Comprehensive Planning Commission and the Coastal Commission. The report identified some 5,200 undeveloped parcels in small-lot subdivisions and 3,400 other undeveloped parcels in the Los Angeles County portion of the Santa Monica Mountains area (the area considered in this report included the area now incorporated as the City of Malibu, as well as the unincorporated area remaining under the jurisdiction of Los Angeles County), for total of approximately 8,600 undeveloped lots. Because of the large number of existing lots, greatly increased demands on coastal roads, services, recreational facilities, and beaches would result from development of these lots. The limited road network that provides access to and from the City already experiences extremely heavy traffic, particularly on weekends, and future development of existing, vacant lots will further increase this traffic. Additionally, an example of limited services is the absence of a City-wide municipal sewer system, which requires that most new residential development must dispose of sewage onsite. Thus, the 1978 report recommended that land divisions should not be approved if they increased the total number of lots in the Santa Monica Mountains coastal zone, including Malibu. In other words, the study recommended that a means should be found to combine existing lots or otherwise retire existing lots so that new land divisions would not result in a net increase in the amount of development that could occur.

At the same time, the Coastal Commission was faced with applications for land divisions which raised at least one, and sometimes a second, major issue of conformance with the policies of the Coastal Act. The major issue raised by all proposed land divisions both inside and outside the existing developed areas in the region was the significant cumulative impacts that would result from development of the large number of existing undeveloped lots mentioned above. The second issue, raised by some land divisions, was the technical requirement of Section 30250(a) of the Coastal Act regarding new land divisions outside existing developed areas. That section requires that such land divisions shall be permitted only where 50 percent of the usable parcels in the area have been developed and where other criteria are met. The

Commission found that "existing developed area" applied only to the urbanized strip, or coastal terrace, along Pacific Coast Highway and did not apply to the interior of the Santa Monica Mountains. The Commission further found that because cumulative impacts would result from development of existing lots throughout the region as a whole, in order to assess whether new lots should be created through new land divisions, the area addressed by the 50% criterion should be the entire market area, amounting to the entire Malibu/Santa Monica Mountains coastal zone because development would impact common coastal resources and public access routes and because of comparable proximity to employment centers, recreational resources, and use of the same water supply, roads or other public services.

Based on these concerns, the Commission found no alternative to denial of a number of land divisions requested in the area (#507-77, Bel Mar Estates; #527-77, Schiff; #28-78, Brown). Faced with continuing applications, the Commission adopted conditions to implement the TDC program through a series of permit decisions (#155-78, Zal;:#158-78 Eide). The program was designed to address both the cumulative impact problem represented by the large number of existing lots and the technical criteria of Section 30250(a) regarding proposed land divisions outside the coastal terrace.

The TDC program ensures that no net increase in development occurs, even if land divisions are approved. The developability of existing parcels is extinguished at the same time new parcels are created, in order to accomplish this end. Because under this program land divisions do not add to the stock of parcels eligible for future potential development and, in fact, "transfer" development (parcels) to more appropriate areas, the potential cumulative impacts are mitigated. Similarly, because land divisions coupled with lot retirement do not increase the number of potentially usable parcels, the technical criterion of 30250(a) concerning 50% of the usable parcels in the area is, in effect, met.

In addition to assuring conformance with Section 30250(a), the TDC program implements the objectives articulated in the following Coastal Act sections: Sections 30210 and 30211, which state in part, that maximum public access and recreational opportunities shall be provided to all people, consistent with private property rights and new development shall not interfere with the public's right of access to the sea; Section 30251, which requires that scenic and visual qualities of coastal areas be considered and protected as a resource of importance; Section 30231, which requires maintaining the biological productivity and quality of streams and other water bodies; Section 30240, which states in part, that environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values; Section 30253, which requires that new development minimize risks to life and property in areas of high hazard and that such development neither create nor contribute to erosion, geologic instability or destruction of the site or surrounding area; and, Section 30254 which requires that limited capacity in existing public facilities be reserved for priority uses

The program was seen, in connection with these first permit actions, as a pilot program. Later, as applications for land divisions continued to be filed, the program was extended (#346-78; Flood and #119-78, Markham). The program was later applied to construction of multi-family projects, not involving land divisions, and the sliding scale TDC requirement for multi-family projects with relatively small units was also instituted (#182-81; Malibu Deville and #196-81, Malibu Pacifica). The program was fully described in the Interpretive Guidelines for the Malibu/Santa Monica Mountains Coastal Zone which were adopted by the Commission on July 16, 1979 and later revised on June 17, 1981.

In these actions the Commission reaffirmed the appropriateness of the TDC program to mitigate cumulative impacts from creation of new developable lots throughout the Malibu/Santa Monica Mountains area. For example, in the Malibu Deville permit and Malibu Pacifica permits noted above the Commission reaffirmed the direct mitigation embodied in the TDC program and found it to be necessary throughout the Malibu coastal zone, including existing developed areas. Later Commission permit decisions also reaffirmed the use of the program (#5-83-43, Heathercliff).

In 1985, the Commission certified the Malibu/Santa Monica Mountains Land Use Plan (LUP) with Suggested Modifications. One suggested modification the Commission made to the County was that the TDC program be added to the LUP to address the mitigation of the cumulative impacts of development. When the County submitted their revised LUP in 1986, it did not include a TDC program. However, the LUP did include (Policy P272) six alternative techniques to reduce the potential buildout of existing non-conforming lots. The LUP was certified with these six provisions and no TDC program; however, the County never adopted an implementation plan or otherwise implemented any of its proposals for reducing the potential buildout of existing lots.

In several permit actions after the LUP certification [5-86-592 (Central Diagnostic Labs), 5-86-951 (Ehrman and Coombs), 5-85-459A2 (Ohanian), and 5-86-299A2 and A3 (Young and Golling)], the Commission found that until such time as the County did have the means to implement these programs, it was necessary to continue to require permittees to participate in the TDC program as a way to mitigate the cumulative impacts of new subdivisions and multi-family project. Without this means of mitigation, the Commission found that it would have no alternative but to deny the proposed subdivisions.

The Commission's evaluation of the TDC program completed in June 1999 as part of the *Regional Cumulative Assessment Project, Findings and Recommendations, Santa Monica Mountains/Malibu Area (ReCAP)*, confirmed the effectiveness of the TDC program in mitigating cumulative impacts of development in the Malibu/Santa Monica Mountains area. The ReCAP report evaluated potential maximum buildout scenarios

under land use plan densities current at the time and identified potential impacts from the development in the region including, in part, that[113]:

- The number of residential units could increase from the buildout of existing vacant lots. The ReCAP project scenarios estimated that if existing vacant lots were to be developed, even without additional subdivisions, the number of residential units in the overall region could increase by 60%;
- The overall number of parcels could increase through potential subdivision of existing vacant lots. If not offset by TDCs this could greatly increase current levels of development in the region;
- Hundreds of additional residential units could be added through second units and legalization of previously created but unrecorded lots;
- Impacts could increase because In general, parcels available for future development have significantly greater constraints -- such as steep slopes and sensitive resources -- than do the parcels where the Commission has previously approved development.

The report concluded that the amount of potential future development coupled with the topographic, infrastructure and resource constraints of the area suggest a potential for significant cumulative impacts from new development in the Malibu/Santa Monica Mountains area. The report noted that some regulatory tools, for example denying proposals to extend infrastructure into undeveloped areas, adopting mitigating conditions on permits, and reducing hillside densities, could help mitigate the impacts. But the Commission found:

> "Developing to the maximum densities designated through the various plans for the region would result in the same significant cumulative impacts documented in the late 1970s. The use of the various regulatory tools discussed above can reduce the levels of impacts. However, because of the total number of parcels that could be developed, these regulatory tools alone will not decrease the level of development enough to adequately address the impacts. While development of the existing parcels will lead to additional impacts, any further increase in the potential density of the region, created through additional subdivisions, will lead to further impacts. Therefore, an objective in addressing cumulative impacts of growth and development in the ReCAP region is to prevent a further increase in the overall number of lots that can be developed." [114]

The ReCAP report went on to note that the TDC program implemented by the Commission effectively mitigated impacts of proposed new subdivisions by retiring development potential on approximately 1,051 existing residential lots covering about 1,673 acres of land in the Santa Monica Mountains/Malibu region while allowing subdivisions to create about 700 new lots. Most retired lots were located in the small lots subdivisions and without these lots being retired ReCAP estimated that about 1,145

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[113] California Coastal Commission, *Regional Cumulative Assessment Project, Findings and Recommendations, Santa Monica Mountains/Malibu Area,* June 1999, pp. 17-20.
[114] California Coastal Commission, 1999, pp. 19-20.

new residential units could have been developed. The result of this program has been to not only reduce the overall density of development in the region, but also to direct development to more appropriate locations. For example, density in the small lots subdivisions has been reduced and lots containing significant sensitive resources have been retired. [115] Nevertheless, the ReCAP report indicated that there still are approximately 1,370 vacant existing parcels in the City of Malibu. Thus, there is the potential for significant adverse cumulative impacts to coastal resources simply from future development of the existing parcels.

b. Land Use Plan Policies

The LUP provides for a lot retirement program designed to minimize the individual and cumulative impacts of future subdivisions and multifamily development and of the potential buildout of existing parcels that are located in ESHA or other constrained areas while still allowing for creation of parcels in areas with fewer constraints. The Malibu LUP includes provisions for a Transfer of Development Credit (TDC) Program, and a voluntary merger process. New development that results in the creation of new parcels, or multi-family development, with certain exceptions explained below, that includes more than one unit per existing parcel must retire an equivalent number of existing parcels that meet the qualification criteria of the program.

The LUP Policies 5.26-5.32 recognize that the cumulative impact of buildout throughout the region affects coastal resources and public access and as such require that the TDC program be implemented on a region-wide basis, including the City as well as the unincorporated area of the Santa Monica Mountains Area as defined in Section 7.3 of the Local Implementation Plan. These policies address Section 30250 of the Coastal Act. This section requires that development occur in existing developed areas able to accommodate it. Existing developed areas, as well as areas outside of existing developed areas, must not only have adequate public services to serve the needs of the development, but also must have enough services to accommodate other priority coastal uses such as public recreation and visitor serving uses, consistent with Section 30254.

Public services are already severely constrained in the City. Areas of the City's shoreline are already experiencing water pollution related to development. Increased dependence on private septic systems will further contribute to cumulative impacts. The Los Angeles Regional Water Quality Control Board recently summarized the water pollution issues affecting Malibu [(Resolution No. R4-02-014, dated August 29, 2002) attached as Exhibit 12]. The Board Resolution states:

- "Water resources in the Malibu Creek watershed are degraded by pollutants from several sources, including but not limited to: runoff from urban areas and

[115] California Coastal Commission, 1999, pp. 20-28.

horse corrals; wastewater discharged from the Las Virgenes Municipal Water District's Tapia Water Reclamation Facility; stormwater runoff; and wastewaters discharged from malfunctioning septic systems." (Para. 3);

- "Due to the contribution of various pollutants, Malibu Creek and Lagoon have been formally designated by the Regional Board as "impaired waterbodies" pursuant to section 303(d) of the federal Clean Water Act ....." (Para. 5);
- "The ocean beaches along the City also are designated as impaired under section 303(d) of the Clean Water Act due to the presence of harmful bacteria that pose a health [threat] to humans engaged in waterborne recreation." (Para. 6);

The Resolution states that the Regional Board (along with the City and County) is concerned about the Malibu Creek watershed pollution problems: "One of the Regional Board concerns has been the potential contamination of groundwater and impacts to the ocean from the septic disposal systems in the City." (Para. 7). A Report by the Regional Board Staff dated June 27, 2002 (Item 6; 454th Board Meeting) (Exhibit 13) discusses a study of Malibu septic systems from August 1999 to through June 2000. Based on this investigation, the Regional Board staff concluded that "(1) the septic system discharges are causing groundwater pollution; (2) groundwater is in hydraulic connection with surface water; and (3) septic system discharges are a cause of surface water pollution in Malibu." (Report, p.3). Other studies are cited that also support this conclusion (URS Greiner Woodward Clyde, June 1999; URS Greiner Woodward Clyde, April 17, 2000; Report to Coastal Conservancy, UCLA, February 1999).

The State Water Resources Control Board's "California Beach Closure Report 2000," July 2001, identifies untreated runoff flowing from the land through storm drains and natural stream courses as another primary source of coastal water pollution. (p.2) The Report explains that "[t]his runoff may come from roof tops, streets, yards, gardens, open spaces, parking lots, animal yards, construction sites, logging roads, and any other surface exposed to rain or snow. It collects animal waste, oil and rubber residue from cars, asbestos and metals from brake linings, pesticides, silt and various types of vegetable matter. It may contain high bacterial counts and viruses, may be toxic to marine life, ..." (Id.) The Beach Closure Report refers to a 1996 epidemiological study that "validated the cause and effect relationship between elevated levels of bacteria in beach water and health problems observed in exposed beachgoers." (p. 2). In 2001, 7 different beaches in Malibu (Big Rock Beach, Dan Blocker Beach, Nicholas Canyon Beach, Paradise Cove, Surfrider, Topanga and Zuma Beach) experienced beach closings and advisories, due to elevated bacteria levels detected by water sampling. (Testing the Waters 2002, A Guide to Water Quality at Vacation Beaches, NRDC, page 30-38).

As the above information shows, ocean water pollution is already a problem in Malibu. The City, as well as Los Angeles County, faces an ongoing need to address polluted runoff generated from the buildout of existing lots in the watersheds of the Santa Monica Mountains. New subdivisions that create more buildable lots will increase the overall

number of septic systems in the watersheds and could increase surface runoff from additional impervious surface area. Given existing water quality problems, expanding the amount of development through new subdivisions and multi-family units has the potential to cause or contribute cumulatively to adverse impacts to water quality.

Coastal access continues to be impacted by the cumulative effects of development on major coastal access roads within, and leading to, the city. Given its location between erosive bluffs and expensive beachfront homes, significant widening of PCH is unlikely. Widening of the cross-mountain roads that also provide access to the City is also difficult.

The constraints on the major coastal access routes was also noted in documents submitted as work products in compliance with an LCP grant awarded to the City by the Commission. In background discussions in an Administrative Draft LUP, the draft notes the importance of Pacific Coast Highway as the single, major through coastal highway from the Ventura County line to the Santa Monica Freeway, serving recreational, commuter, emergency and local community traffic for the coast. The draft notes that PCH's traffic capacity is, at times, exceeded in areas close to metropolitan population centers and that, on weekends, capacity is below what would be expected of a four lane arterial. It notes that Pacific Coast Highway, east of Trancas Canyon Road, Malibu Canyon Road, north of Civic Center Drive and Kanan Dume Road are roadways in the City of Malibu that are, at times, currently operating at levels of service beyond the free to stable flow range and also identifies level of service E or F on PCH at several locations. In discussing future demand the background discussion notes that PCH is frequently at maximum capacity and is expected to deteriorate further. The major cross-mountain roads, which are mostly two lane provide not only local access to residences but also provide the major access to the beaches within the City from the Ventura Freeway and are also heavily used.[116]

As the Commission has found in implementing the TDC program, there are insufficient public services to accommodate development of all the existing vacant lots and development of multiple family units within the City without cumulative impacts to coastal resources and public access. Given the importance of the coastal resources, the large number of vacant lots and already constrained infrastructure, the Santa Monica Mountains area coastal zone overall, be it within or outside of an existing developed area, cannot accommodate new development which results in an increase in new lots or new multi-family development on existing lots. Thus, the LUP policies provide for a lot retirement program to ensure no net increase in building sites to avoid further increases in cumulative impacts. The Commission will seek similar requirements to address cumulative impacts of new land divisions in the Los Angeles County LCP currently under development by the County.

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[116] City of Malibu Local Coastal Program Land Use Plan February 2000 *Administrative Draft*, pgs. 143-145.

Credits to mitigate new development within the City may be generated from qualifying lots anywhere within this region. The TDC program was developed based on addressing the cumulative impacts of development over the region as a whole to best protect sensitive resources. Continuing to retire the development potential of parcels throughout the region as mitigation for the approval of new land divisions or multi-family development in the City will mitigate the cumulative impacts of such development. [Regional Cumulative Assessment Project (ReCAP), 1999]. The Santa Monica Mountains region of the County and the City of Malibu are inextricably linked by the watersheds that cross them, as well as by roads that provide access to and from both areas. Retirement of parcels that qualify under the TDC program, including those within small lot subdivisions or ESHA will benefit the region as a whole, including the City.

In addition to the TDC program, the LUP policies provide that contiguous substandard lots may be merged, thereby reducing the potential impacts of developing existing small lots. Finally, an expedited voluntary merger procedure will be implemented as part of the LCP.

c. Local Implementation Plan Provisions

The LUP Policies 5.26 and 5.27 call for the implementation of a Transfer of Development Credit Program in the LCP.

> 5.26 A Lot Retirement Program will be implemented in order to minimize the individual and cumulative impacts to coastal resources of the buildout of existing parcels in sensitive and constrained areas and to allow for new development in areas less constrained. The Lot Retirement Program shall comprise the following components:
>
> - Transfer of Development Credit Program
> - Expedited Voluntary Merger Process
>
> 5.27 The Transfer of Development Credit (TDC) Program shall be implemented in order to ensure that the individual and cumulative impacts of creating new lots or developing multi-family residential units are minimized and mitigated through the retirement of an equivalent number of development credits from existing lots that meet the qualification criteria of the program. Lots that contain ESHA, are located in small-lot subdivisions, or are located adjacent to parklands can be retired for transfer of development credits

The Local Implementation Plan includes a Transfer of Development Credit requirements (Chapter 7) that carries out the LUP Policies 5.26-5.32 by ensuring that density increased through new land divisions or multifamily unit development, excluding affordable housing units, will be offset by the retirement of development rights on existing lots throughout the Santa Monica Mountains Area. Chapter 15 (Requirements for Land Divisions) contains a process for the voluntary merger of lots.

Section 7.2 of the LIP outlines when the requirements of the TDC program are applicable consistent with LUP Policies 5.26, 5.27 and 5.29. TDC requirements are not

required for development of specific affordable housing units. The TDC program in the Malibu/Santa Monica Mountains Coastal Zone is voluntary, in that it applies only to those who wish to intensify land use through land divisions or multi-family projects. As such, an applicant retains the option of applying for one residential unit on each residential parcel without being required to comply with the TDC ordinance. The program requires that individuals applying for land divisions or multi-family projects provide TDC credits for additional lots/units created. In the same way, retirement of those lots, which are eligible for TDC credit because of their location within designated donor areas, is also voluntary. The TDC program provides an incentive for the owner of a lot within a donor area to not develop the parcel by selling development rights.

One of the underpinnings of the TDC Program is Section 30250(a) of the Coastal Act that requires that new development be located within, contiguous with, or in close proximity to existing developed areas able to accommodate it. The areas where new development created through land divisions or multi-family projects may be accommodated are designated as "receiver areas". The LIP Section 7.6 designates receiver areas as residential zones, including multifamily zones, within the City where new lots and multifamily units may be created, if it complies with the applicable land use designation, consistent with LUP policy 5.27.

The LUP Policy 5.27 also identifies the areas where development rights should be retired through the program. Consistent with that policy, Section 7.7 of the Local Implementation Plan identifies donor areas where credits may be obtained through purchase of development rights throughout the Santa Monica Mountains Area, in:

- Parcels in small lot subdivisions;
- Parcels identified as consisting of predominately environmentally sensitive habitat;
- Parcels within significant watersheds;
- Parcels immediately adjacent to public parklands where development cannot be sited to avoid encroachment of fuel modification onto public parklands; and
- Parcels in designated wildlife corridors.

These donor sites are identified as sensitive areas where the development rights of existing inappropriately designed or located parcels should be retired.

Throughout the Malibu/Santa Monica Mountains coastal zone there are a number of areas that were subdivided in the 1920's and 30's into very small "urban" scale lots. These subdivisions, known as "small-lot subdivisions" are comprised of parcels of less than one acre but generally range in size from 2,000 to 15,000 square feet. The 1978 "Build-out" report prepared for the Santa Monica Mountains Comprehensive Planning Commission and for the Coastal Commission, found that of the total existing undeveloped parcels identified in the Malibu/Santa Monica Mountains area, 60 percent

were located within the small lot subdivisions.[117] The cumulative development constraints common to small-lot subdivisions were documented by the Coastal Commission and the Santa Monica Mountains Comprehensive Planning Commission in the January 1979 study entitled: "Cumulative Impacts of Small Lot Subdivision Development In the Santa Monica Mountains Coastal Zone". The study acknowledged that the existing small-lot subdivisions can only accommodate a limited amount of additional new development due to major constraints to buildout of these areas that include: geologic problems, road access problems, water quality problems, disruption of rural community character, creation of unreasonable fire hazards and others. With steep slopes and smaller average lot sizes, the ability to site development within the small lot subdivisions to avoid impacts to resources is limited. Further, if fully developed, the densities in these small lot subdivisions would exceed the capacity of the narrow winding access roads and the local watershed's ability to assimilate the septic system effluents. The report concluded that the large number of existing undeveloped small lots, if developed, would have a significant adverse impact on coastal resources.

The TDC donor site qualification criteria in Section 7.7 and 7.8 of the Ordinance include parcels located within Environmentally Sensitive Habitat Areas (ESHAs) and Significant Watersheds. Environmentally sensitive habitat area is defined in the Local Implementation Plan [Chapter 2 (Definitions)] as:

> ...any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in the ecosystem and which could be easily disturbed or degraded by human activities and developments.

Significant Watersheds are large, relatively undisturbed, natural drainage basins that contain exceptional riparian and oak woodlands and provide habitat for various declining, restricted, rare or endangered species. The Ordinance identifies eight Significant Watersheds where donor areas may be retired. These areas are designated as donor areas in order to preserve and protect the most critical resource areas where continued build-out would adversely impact sensitive coastal resources.

Other donor areas include areas to provide buffer areas to parkland habitat and recreational resources and to protect wildlife corridors. In the 1978 Commission action on coastal development permit (A-158-78) the Commission retired development potential of two building sites located adjacent to Malibu Creek State Park finding that if developed, such development would have adverse impacts on parkland resources. The LUP Policy 5.27 reflects the importance of protecting these areas.

LUP Policy 5.29 sets forth the procedure for retiring development potential:

> 5.29 Any coastal development permit for a land division resulting in the creation of additional lots or for a multi-family use resulting in the development of more than one

[117]Cumulative Impacts of Potential Development in the Santa Monica Mountains Coastal Zone, prepared by Curtis S. Williams and Dale Briker, 1978.

unit per existing lot in the project site, excluding affordable housing units, shall be conditioned upon the retirement of development credits prior to issuance of the permit. The development potential of the qualifying parcel(s) shall be retired through the recordation of an offer to dedicate an open space easement and the merging or recombination of the retired parcel(s) with a contiguous parcel where the development potential is not retired.

Section 7.8 of the Local Implementation Plan establishes the criteria for determining if specific lots qualify to be retired as mitigation. While lots may be reviewed for qualification at any time, the actual retirement of development credit(s) on the TDC lot(s) will take place after approval of the project, as condition compliance. Section .7.8.3 specifies the process by which the City will qualify development credits. The procedures assure that where development rights are retired, the lots are protected from future development through the recordation of a permanent irrevocable open space easement in favor of the City that conveys an interest in the lots that insure that future development is prohibited consistent with requirements of LUP policy 5.29. In addition, Section 7.8.3 requires that retired lots are either merged or recombined with other adjacent unrestricted lots The procedures in the Implementation Plan to carry out the transfer of development credits are based on procedures and calculations developed through administration of the TDC program as applied in numerous coastal development permits authorized by the Commission.

To begin, the applicant submits a coastal development permit application to the City for approval of a parcel map, tract map, or multi-family project. To approve land division permits, the City must find that the parcels created contain building sites which can be developed in accordance with all LCP policies and which will create lots no smaller than the average size of the lots in the surrounding areas. As a condition of approval, the City then will require the applicant to mitigate the cumulative impacts of the project with the purchase of TDCs.

The applicant will be required to retire sufficient lots ("donor sites") to provide 1 TDC per new lot created. In the approval of multi-family projects, the ordinance requires one development credit for each unit, minus the number of existing parcels within the project site (i.e., a six-unit project to be sited on two existing parcels requires four development credits). An exception to this requirement may be allowed where multiple-family projects include units with less than 2500 square feet of gross structural area (GSA). In such cases, the TDC credit requirement may be calculated at a lesser rate, proportionate to the size of the units (one TDC per 2500 sq. ft. of GSA).

The ordinance section 7.82 sets forth the process to determine if lots qualify for TDC credit. Applicants may compare prospective donor sites with the criteria in 7.7. If the sites qualify, Section 7.8 outlines how many TDCs may be generated from their retirement. Applicants can then determine how many lots must be retired to comply with the TDC requirements.

LUP Policy 5.28 requires:

> 5.28 One TDC Program shall be implemented on a region-wide basis for the Santa Monica Mountains Coastal Zone, including the City of Malibu and the County of Los Angeles. Credits to mitigate development approved in the City may be generated from qualifying lots anywhere within this region.

The LIP as proposed will result in retirement of development rights on lots which, if otherwise developed would have resulted in individual and cumulative impacts to coastal resources in the City. The prior Commission studies and the more recent ReCAP report noted the importance of implementing a TDC program throughout the Santa Monica Mountains/Malibu area in order to address the cumulative impacts of development. Development in the mountainous watersheds will adversely affect the downstream resources in the City. Development throughout the region will have comparable impacts on infrastructure and capacity of the major coastal access roads that bring visitors from inland areas to the City's shoreline. As the ReCAP report noted:

> The Commission developed its current TDC program based on addressing the cumulative impacts of development over the region as a whole to best protect the resources. As a result, the Commission found that development was more appropriately focused on the coastal terrace rather than in the interior, more mountainous portion of the region where development was more constrained and would lead to more significant impacts on resources.
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> . . . . .
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> By continuing to retire the development potential of parcels in the Los Angeles County portion of the coastal zone, the City of Malibu will benefit. Impacts from development will affect the entire region, and will not be isolated to the political jurisdiction where the development occurs. As discussed throughout these findings, a main problem in addressing cumulative impacts to coastal resources is the sheer number of parcels that could ultimately be developed in the region as a whole. By continuing to reduce the density in the mountain area, the overall density of the region continues to be held or reduced, thereby reducing the cumulative impacts from development[118]

The Implementation Ordinance proposes a program that reflects the mitigation of impacts throughout the region. While coastal development permits will be authorized for the area within the City, development potential can be retired throughout the region. Thus, as called for in LUP policy 5.28, the coastal resources in the City, such as major beach access roads and downstream water resources will benefit from overall control of new lot development throughout the watersheds and region.

LUP policies 5.30 and 5.31 require:

> 5.30 The City shall coordinate with the County of Los Angeles to ensure that lots retired through the TDC program are restricted, merged, and that such actions are accurately reflected in the records of the County Tax Assessor.

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[118] California Coastal Commission, 1999, pp.35.

> 5.31 An ordinance to create an expedited procedure and reduced fee for processing voluntary mergers should be developed.

In conformance with this policy, Section 7.8.3 of the LIP, as well as provisions of the subdivision ordinance provide for these recordations. Development rights are retired through recordation of a dedication of a permanent open space easement, and the ordinance requires that retired lots be combined with one or more adjacent unrestricted lots through a recorded deed restriction or through a voluntary merger. These recordations are to be reflected in Los Angeles County Tax Assessor records. This ordinance provision is intended to assure that once development potential on a lot is retired that this information is considered in future land assessments. It will also ensure that through recombination the mitigation on these retired lots will remain in effect and enforced. Potential tax defaults and involuntary, unplanned transfer (through tax lien foreclosure sales) of these lots will be minimized. This will assure that development potential is retired consistent with Policy 5.29 and 5.30.

LUP policy 5.32 provides that:

> A record of the number and location of lots permanently retired through the lot retirement program should be maintained and made available to members of the public upon request.

Section 7.10 of the LIP contains requirements for maintenance of TDC records by the City in a manner that will facilitate monitoring and enforcement of TDC requirements. Maintaining the information on retired development potential will also provide data to evaluate continued progress in addressing cumulative impacts.

d. Conclusion

The Land Use Plan provides the means to mitigate the cumulative impacts to coastal resources and coastal access resulting from authorization of any new subdivision or new multifamily units through a transfer of development credit program. The Commission finds that the Lot Retirement Policies of the Land Use Plan meet the requirements of and are in conformity with the applicable policies of Chapter 3 of the Coastal Act. The Implementation Plan contains mechanisms to require TDCs as a condition of applicable coastal development permits, and through condition compliance to qualify lots in designated sensitive donor areas throughout the region where development rights may be purchased. The ordinance contains directives for calculating donor credits and for effectuating the retirement of development potential on donor lots in perpetuity. As a result the LIP ensures that as new lots and multifamily units are authorized that development potential on an equivalent number of lots is retired. The Commission finds that the Malibu Local Implementation Plan conforms with and is adequate to carry out Policies 5.26-5.32 of the Malibu Land Use Plan.

9. Communications Policies

a. Land Use Plan Policies

Communication facilities are provided for as a conditional use in all land use designations. All facilities and related support structures shall be sited and designed to avoid or minimize impacts to all coastal resources, consistent with all applicable provisions of the LCP. Co-location of facilities is required where feasible to avoid the impacts of facility proliferation. New transmission lines and support structures will be placed underground where feasible. Existing facilities should be relocated underground when they are replaced. The Commission finds that the Communications Facilities policies (Policies 5.57-5.59) of the Land Use Plan meet the requirements of and conform with Section 30250 of the Coastal Act.

b. Local Implementation Plan Provisions

Section 3.14 of the Malibu LIP provides the siting, development, and design standards for the development of wireless communications antennae and facilities. The Commission finds that the LIP conforms with and is adequate to carry out Policies 5.57-5.59 of the Land Use Plan.

10. Archaeology

The greater province of the Santa Monica Mountains is the locus of one of the most important concentrations of archaeological sites in Southern California. Although most of the area has not been systematically surveyed to compile an inventory, the sites already recorded are sufficient in both numbers and diversity to predict the ultimate significance of these unique resources. As so many archaeological sites have been destroyed or damaged as a result of development activity or natural processes, the remaining sites, even if they are less rich in materials, have become increasingly valuable. Additionally, because archaeological sites, if studied collectively, may provide information on subsistence and settlement patterns, the loss of individual sites can reduce the scientific value of the sites that remain intact.

New development on natural sites or additional development on natural areas of developed sites can damage or destroy archaeological resources. Site preparation can disturb and/or obliterate archaeological materials to such an extent that the information that could have been derived would be lost. If a project is not properly monitored and managed during construction activities, archaeological resources can be degraded or destroyed. Section 30244 of the Coastal Act requires the protection of archaeological and paleontological resources and the implementation of mitigation measures to avoid or minimize any impacts.

a. Land Use Plan Policies

The LUP policies require that new development protect and preserve archaeological, historical, and paleontological resources from destruction and avoid and minimize impacts to such resources. Applications for new development in areas known or anticipated to be archaeologically sensitive must include a site survey prepared by a qualified archaeologist. If cultural resources are identified on the project site, the development must be designed to protect or avoid such resources, consistent with the recommendations of the archaeologist. Where project alternatives cannot avoid all impacts to archaeological or paleontological resources, reasonable mitigation measures shall be required. In addition to protecting cultural resources, and implementing mitigation measures, all grading, excavation, and site preparation that involves earth-moving operations for new development must be monitored by a qualified archaeologist and appropriate Native American consultants.

b. Local Implementation Plan Provisions

Chapter 11 (Archaeological/Cultural Resources) of the Malibu LIP provides the standards for review of projects on site with known or potential cultural resources. The LIP requires the Planning Director, in consultation with the Native American Heritage Commission, State Historic Preservation Officer, and the City's Native American Cultural Resources Advisory Committee, to consider the presence of cultural resources, adverse impacts to such resources resulting from proposed development, alternative project designs to minimize impacts, and mitigation measures to mitigate impacts that cannot be avoided through siting or design alternatives.

The Commission finds that the Malibu LIP conforms with and is adequate to carry out the cultural resource policies (Policies 5.60-5.65) of the Malibu Land Use Plan.

11. Conclusion

The Coastal Act requires the protection of coastal resources, including public access, land and marine habitat, and scenic and visual quality. Section 30250 of the Coastal Act requires that new residential, commercial, or industrial development is located near existing developed areas, and where it will not have significant adverse impacts, either individually or cumulatively on coastal resources. Section 30244 requires the protection of archaeological and paleontological resources and the implementation of mitigation measures to avoid or minimize any impacts.

a. Land Use Plan

As described in detail above, the Land Use Plan, including the LUP Land Use Map, provides for the location and design of new development to minimize impacts, both individual and cumulative

drier slopes support low growing coastal sage scrub species, while north facing or wetter slopes support denser chaparral vegetation. The textures of these areas contrast with the taller trees and shrubs growing in the riparian corridors that form linear features along streams and canyons.

There are sweeping views of the ocean and beach. Coastal views are possible from Pacific Coast Highway where there are breaks in the existing pattern of development. There are excellent views from the cross-mountain roads, each of which follows a canyon through the mountains. Descending these scenic roads, there are alternating views of natural canyon areas and the ocean. There are also views of the beach, ocean and scenic areas from public parks, and riding and hiking trails. Finally, while the beach and ocean are important scenic elements, there are also mountain and canyon views as seen looking inland from the beach and ocean.

4. Scenic and Visual Resource Identification

a. Land Use Plan Policies

The Land Use Plan provides for the protection of scenic and visual resources, including views of the beach and ocean, views of mountains and canyons, and views of natural habitat areas. The LUP identifies Scenic Roads, which are those roads within the City that traverse or provide views of areas with outstanding scenic quality, that contain striking views of natural vegetation, geology, and other unique natural features, including the beach and ocean. The LUP also addresses Public Viewing Areas, located along existing public roads where there are views of the beach and/or ocean, and other scenic areas. Additionally, there are intermittent beach or ocean views from all of the cross-mountain roads within the City (with the exception of certain portions of Decker Canyon Road where the topography prevents ocean views). Further, there are views of the ocean and other scenic areas from public parklands and from riding and hiking trails. Trails and parklands are shown on the LUP Park and Trail Map. Finally, the LUP Public Access Map shows public beach parks and accessways that provide views of the mountains and other scenic areas. The Scenic and Visual Resource protection policies are also carried out by the requirements of LUP policies 6.1 - 6.3.

Based on the above, the Commission finds that the City of Malibu adopted Land Use Plan policies provided above, meet the requirements of and conform with Section 30251

unincorporated L.A. County portion of the Santa Monica Mountains Coastal Zone (6.1). To implement the policies of the LUP, development standards, permit and application requirements, and other measures are provided to ensure that permitted development is sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. All policies, standards and provisions in the ordinance are applicable to all CDP applications for any parcel of land located along, within, or that provides views to or is visible from any Scenic Area, Scenic Road, or Public Viewing Area (see definitions in LIP or LUP policies 6.2 – 6.4). The hillside development standards of this chapter are applicable to parcels where the project site includes a slope over 20 percent (6.2).

Based on the above, the Commission finds that the policies contained in the City of Malibu LCP Implementation Plan provided above, conform with and are adequate to carry out the policies and provisions of the adopted Land Use Plan relative to Scenic and Visual resources.

5. New Development

a. Land Use Plan Policies

The LUP policies require that new development minimize view impacts from scenic roads or public viewing areas. Where this is not feasible, new development must minimize impacts through siting and design measures. Protection is provided for prominent ridgelines by requiring structures to be set below the ridgeline and to avoid intrusions into the skyline. These measures and/or requirements are carried out by LUP policies 6.5 – 6.8.

The policies give parameters for the siting and design of all new development to ensure that the alteration of natural landforms is minimized. These measures include siting development on flatter areas of the site, conforming development to the natural topography, clustering development, and preventing flat building pads on slopes. Graded slopes must blend with the existing terrain of the site and the height and length of slopes must be minimized. Finally, the length of roads or driveways shall be minimized and slopes designed to follow the natural topography in order to minimize landform alteration. These measures are provided for in LUP policies 6.9 – 6.11.

The Commission has found through past permit actions that in highly scenic areas the color of a structure can adversely impact a viewshed if the color is not consistent with the surrounding environment. For example white structures are highly visible from long distances and can adversely impact the visual resources from scenic highways trails and public view areas. The Commission has found that structures that have exterior colors and materials that are compatible with the surrounding environment are less

visually obtrusive. In addition, the Coastal Act provides, and the Commission has found, that new development should be visually compatible with the character of surrounding areas.

The policies require that new structures are sited and designed to minimize impacts to visual resources, by incorporating design measures to limit the appearance of bulk, ensuring visual compatibility with the character of surrounding areas, and by using colors and materials that are similar and blend in with natural materials on the site (6.12). The height of retaining walls must be minimized and fences, walls and landscaping must not block or obscure views from public viewing areas (6.13, 6.15). Development is required to be setback sufficiently from the bluff edge in order to minimize visual impacts from the beach (6.16).

Pacific Coast Highway is designated as a scenic highway for coastal views by the LUP. Further, Pacific Coast Highway is also a major coastal access route, not only utilized by local residents, but also heavily used by tourists and visitors to access public beaches which are only accessible from Pacific Coast Highway. Public views of the beach and water from Pacific Coast Highway have been substantially reduced, or completely blocked, in many areas by the construction of single-family residences, privacy walls, fencing, landscaping, and other residential related development between Pacific Coast Highway and the ocean. This type of development limits the public's ability to view the coast or ocean to only those few parcels which have not yet been developed. The Commission notes that the construction of individual beachfront or bluff top residences, when viewed on a regional basis, results in potential cumulative adverse effects to public views and to the visual quality of coastal areas.

In past permit actions, consistent with Coastal Act Section 30251, the Commission has required that new development located on the seaward side of Pacific Coast Highway be sited and designed to protect public bluewater views of the ocean and, where feasible, to restore and enhance visual quality in visually degraded areas. Specifically, in regard to new development located on beachfront lots, where it is not possible to limit the height of new structures to an elevation lower than the highway, the Commission has required that new development occupy no more than 80% of the lineal frontage of Pacific Coast Highway in order to maintain a public view corridor over the lot for ocean views [Saban (4-99-146), Broad (4-99-185), 4-99-154 (Montanaro)]. However, in past permit actions regarding development on bluff top sites where slopes descend seaward from the highway, the Commission has further limited the height of new structures and landscaping to an elevation adequate to ensure that public views of the ocean are retained over the entire project site [CDPs 4-98-142, 143, & 163 (Duggan & Levinson), CDP 4-97-031 (Anvil), CDP 5-90-020 (Young)].

The LUP requires that new development must preserve bluewater ocean views by limiting the overall height and siting of structures where feasible to maintain ocean views over the structures. Where it is not feasible to maintain views over the structure through siting and design alternatives, view corridors must be provided in order to

maintain an ocean view through the project site. These objectives are carried out by policies 6.16 –6.19. In addition, the LUP includes policies to enhance the Pacific Coast Highway corridor as a scenic highway and viewshed (6.33 – 6.36). The LUP also requires that public works projects along scenic highways incorporate design elements to ensure compatibility with the rural character of the Santa Monica Mountains (6.22).

Further, the LUP policies set forth restrictions regarding the design of land divisions, including lot line adjustments, to ensure that building sites are clustered, that the length of roads and driveways are minimized, that shared driveways are provided, that grading is minimized, and that all graded slopes are revegetated. Land divisions that do not avoid or minimize impacts to visual resources will not be permitted. These provisions are carried out by policies 6.24 – 6.26.

Development is required to minimize the removal of natural vegetation both for the actual development area, as well as vegetation removed or thinned for fuel modification and brush clearance. Graded slopes and other areas disturbed by construction must be landscaped or revegetated with primarily native, drought tolerant plants to provide coverage of the disturbed areas and monitored to ensure success. These provisions are carried out by policies 6.27 – 6.29.

The LUP also contains policies relative to the protection of scenic and visual resources that address the design and location of signs and utilities (6.30 – 6.32).

Based on the provisions above, the Commission finds that the Scenic and Visual Resource protection policies contained in the adopted City of Malibu Land Use Plan meet the requirements of and are in conformity with Section 30251 of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

The ordinance provides that all CDP applications shall be subject to an on-site investigation to determine whether the proposed development has the potential to cause adverse impacts upon Scenic Areas from or along Scenic Roads or Public Viewing Areas (6.3). Where applicable, proposed structures, grading, and roads shall be indicated on the site by the placement of story poles or stakes. Written findings of fact, analysis and conclusions addressing scenic or visual resources must be included in support of all approvals, conditional approvals, or denials of development where it is determined that the proposed project causes the potential to cause adverse impacts. Findings must be supported by substantial evidence in the record and, if found to be necessary to conform to the development standards contained in this chapter, the proposed development shall be modified, by special condition relative to height, size, design, or location on the site and may be required to incorporate landscaping or other means to avoid or minimize adverse scenic impacts.

Section **30254.5** of the Coastal Act states that:

Notwithstanding any other provision of law, the commission may not impose any term or condition on the development of any sewage treatment plant that is applicable to any future development that the commission finds can be accommodated by that plant consistent with this division. Nothing in this section modifies the provisions and requirements of Sections 30254 and 30412.

3. Public Works

Development and growth in the City of Malibu is limited by geologic and environmental constraints, steep slopes, and dependence on private septic systems for wastewater management as well as the general desire to limit growth throughout the City. Public works facilities that exist in the City include roads and highways, public water and telephone utilities and all publicly financed recreational facilities including parks, trails and public accessways financed by the State Coastal Conservancy, State Department of Parks and Recreation and Los Angeles County. There is no public sewage treatment plant in Malibu other than the small Malibu Mesa facility that serves Pepperdine University and the Malibu Mesa residential tract. While continued dependence on private septic systems for wastewater treatment has been a limiting factor for development, it has also been suspected of being a contributing factor to water pollution in Malibu Creek and Lagoon and other areas including the beaches. Prior to the City's incorporation in 1991, Los Angeles County proposed a large regional sewer system for much of Malibu. The County's application to construct the facility was withdrawn while it was pending before the Coastal Commission. The City proposes no facilities at present.

Major public works projects in Malibu consist of road repairs, maintenance and improvements. Responsibility for maintaining Pacific Coast Highway lies with the State Department of Transportation (Caltrans). Pacific Coast Highway is periodically damaged by landslides and mudflows on its inland side and by storm waves and erosion on its seaward side. In order to provide for adequate traffic circulation into and out of the City by residents and visitors accessing the public beaches and parks and to facilitate public safety it is important for the City to coordinate with Caltrans. The City is responsible for maintenance and improvements of other roads in the City. There has been considerable damage to roads within the City due to the impacts from several major winter storms since incorporation and considerable effort and expense has been required to keep roads open. It is also necessary to coordinate with Los Angeles County to insure a smooth flow of traffic along cross-mountain roads that provide access between the inland valleys and mountain areas to Pacific Coast Highway in the City. Most of the roads in the City traverse areas that are highly scenic and/or contain sensitive natural resources. Therefore, it is important that road improvements, repairs

and maintenance utilize Best Management Practices including the least environmentally damaging feasible alternative.

a. Land Use Plan Policies

To ensure consistency with the Coastal Act, the policies contained in the Land Use Plan are intended to facilitate the provision and maintenance of public services, including roads, parking, water and electricity, and wastewater management to protect existing and future residents and visitors to the City and to accommodate the level and types of development that the LUP envisions.

Pursuant to Section 30114 publicly financed recreational facilities, including all projects of the State Coastal Conservancy, are considered "Public Works." The Coastal Act definition of "Public Works" including Conservancy projects is provided for in policies 7.1 and 7.2 of the LUP.

The LUP contains policies which provide for improvements to existing roads and intersections for public safety and to improve coastal access (7.3 – 7.5, 7.9 –7.11) Policies also provide for developing measures to improve transit service to and within the City, provide and improve parking facilities, shuttles and van pools (7.6 – 7.8, 7.12, 7.15).

The LUP recommends the creation of "wastewater management zones" for certain areas to facilitate the function and operation of on-site septic systems (7.17). In addition, as an alternative the plan allows for public package wastewater treatment facilities as a wastewater management solution (7.18)

The LUP also allows for a public sewer system to be designed and proposed by the City subject to approval as an amendment to the LCP by the Coastal Commission (7.19 – 7.21). It is important to note that the LUP does not require a sewer system, however, should one be proposed, it includes restrictions to protect marine resources and riparian habitat, and to limit capacity so that it is not growth inducing.

Based on the above discussed provisions, the Commission finds that the Public Works policies contained in the adopted Land Use Plan for the City of Malibu meet the requirements of and conform with Section 30254 of Chapter 3 of the Coastal Act.

b. Local Implementation Provisions

Many of the policies contained in the LUP regarding Public Works are recommendations or policies to guide possible future actions such as establishing "wastewater management zones" or designing and constructing package treatment plants or a City wide public wastewater treatment system. Other policies are carried out by the Water

Quality Protection Ordinance or the On-Site Wastewater Disposal System Standards Ordinance which are discussed elsewhere in this report.

Based on the above, the Commission finds that the policies contained in the applicable sections of the City of Malibu LCP Implementation relative to public works conform with and are adequate to carry out the relative provisions of the adopted Land Use Plan.

I. Industrial and Energy Development

1. Coastal Act Provisions

The Coastal Act provides for the consideration of coastal-dependent industrial and energy-related development, and for other commercial and industrial land uses such as aquaculture, fishing, kelp harvesting, and seawater desalinization.

2. Coastal Act Policies

Section **30101** of the Coastal Act states that:

"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Section **30101.3** of the Coastal Act states that:

"Coastal-related development" means any use that is dependent on a coastal-dependent development or use.

Section **30222.5** of the Coastal Act states that:.

Ocean front land that is suitable for coastal dependent aquaculture shall be protected for that use, and proposals for aquaculture facilities located on those sites shall be given priority, except over other coastal dependent developments or uses.

Section **30250** of the Coastal Act states in part that:

(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

Section **30255** of the Coastal Act states that:

Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

Section **30260** of the Coastal Act states that:

Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 3026l and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

Section **30261** of the Coastal Act states that:

Multicompany use of existing and new tanker facilities shall be encouraged to the maximum extent feasible and legally permissible, except where to do so would result in increased tanker operations and associated onshore development incompatible with the land use and environmental goals for the area. New tanker terminals outside of existing terminal areas shall be situated as to avoid risk to environmentally sensitive areas and shall use a monobuoy system, unless an alternative type of system can be shown to be environmentally preferable for a specific site. Tanker facilities shall be designed to (1) minimize the total volume of oil spilled, (2) minimize the risk of collision from movement of other vessels, (3) have ready access to the most effective feasible containment and recovery equipment for oilspills, and (4) have onshore deballasting facilities to receive any fouled ballast water from tankers where operationally or legally required.

Section **30262** of the Coastal Act states that:

Oil and gas development shall be permitted in accordance with Section 30260, if the following conditions are met:

(a) The development is performed safely and consistent with the geologic conditions of the well site.

(b) New or expanded facilities related to such development are consolidated, to the maximum extent feasible and legally permissible, unless consolidation will have adverse environmental consequences and will not significantly reduce the number of producing wells, support facilities, or sites required to produce the reservoir economically and with minimal environmental impacts.

(c) Environmentally safe and feasible subsea completions are used when drilling platforms or islands would substantially degrade coastal visual qualities unless use of such structures will result in substantially less environmental risks.

(d) Platforms or islands will not be sited where a substantial hazard to vessel traffic might result from the facility or related operations, determined in consultation with the United States Coast Guard and the Army Corps of Engineers.

(e) Such development will not cause or contribute to subsidence hazards unless it is determined that adequate measures will be undertaken to prevent damage from such subsidence.

(f) With respect to new facilities, all oilfield brines are reinjected into oil-producing zones unless the Division of Oil and Gas of the Department of Conservation determines to do so would adversely affect production of the reservoirs and unless injection into other subsurface zones will reduce environmental risks. Exceptions to reinjections will be granted consistent with the Ocean Waters Discharge Plan of the State Water Resources Control Board and where adequate provision is made for the elimination of petroleum odors and water quality problems.

Where appropriate, monitoring programs to record land surface and near-shore ocean floor movements shall be initiated in locations of new large-scale fluid extraction on land or near shore before operations begin and shall continue until surface conditions have stabilized. Costs of monitoring and mitigation programs shall be borne by liquid and gas extraction operators.

Section **30263** of the Coastal Act states that:

(a) New or expanded refineries or petrochemical facilities not otherwise consistent with the provisions of this division shall be permitted if (1) alternative locations are not feasible or are more environmentally damaging; (2) adverse environmental effects are mitigated to the maximum extent feasible; (3) it is found that not permitting such development would adversely affect the public welfare; (4) the facility is not located in a highly scenic or seismically hazardous area, on any of the Channel Islands, or within or contiguous to environmentally sensitive areas; and (5) the facility is sited so as to provide a sufficient buffer area to minimize adverse impacts on surrounding property.

(b) New or expanded refineries or petrochemical facilities shall minimize the need for once-through cooling by using air cooling to the maximum extent feasible and by using treated waste waters from inplant processes where feasible.

Section **30264** of the Coastal Act states that:

Notwithstanding any other provision of this division, except subdivisions (b) and (c) of Section 30413, new or expanded thermal electric generating plants may be constructed in the coastal zone if the proposed coastal site has been determined by the State Energy Resources Conservation and Development Commission to have greater relative merit pursuant to the provisions of Section 25516.1 than available alternative sites and related facilities for an applicant's service area which have been determined to be acceptable pursuant to the provisions of Section 25516.

3. Discussion

The Coastal Act provides for the consideration of coastal-dependent industrial and energy-related development, and for other commercial and industrial land uses such as aquaculture, fishing, kelp harvesting, and seawater desalinization. The City of Malibu presently does not contain any of these land uses, and most--particularly oil and gas development (including directional drilling projects to develop offshore oil and gas resources from inland areas), are unlikely to be proposed within the City's limits in the foreseeable future.

If any land uses governed by the Coastal Act provisions cited in this section are proposed in the future for lands located within the boundaries of the City's certified LCP, an amendment to the City's LCP would be required before a coastal development permit for such a project could be approved.

Coastal Act Sections 30101, 30101.3 and 30255 distinguish among coastal-dependent development, coastal-related development, and other types of developments, and establish priorities among various land uses identified in each category. Coastal Act Section 30250 in part requires that new hazardous industrial development be located away from existing development, where feasible. Other applicable policies of the Coastal Act contain more specific siting and permitting requirements based on the type of project under consideration. Oil and gas development projects, including extraction, processing, refining, or other petrochemical facilities, and tanker facilities, are subject to very specific policy standards that would be considered by the Commission in certifying any related LCP amendment that might be proposed in the future to allow for such development within the City limits.

In addition, potential future projects that would be considered energy and industrial, or related projects, would likely be located in areas subject to tidal action, and thus within the area of the Coastal Commission's retained jurisdiction. Such projects would therefore require a coastal development permit approved by the Coastal Commission, but could also require an LCP amendment to address portions of such projects that would be proposed for location within the boundaries of the City's LCP.

J. Implementation Procedures

1. Coastal Act Provisions

Coastal Act Sections 30600 and 30620.6 provide for the transfer of much of the authority for issuance of coastal development permits to local jurisdictions upon certification of an LCP. Coastal Act Section 30006 also provides for the widest opportunity for public participation in coastal planning and regulatory decisions. The Coastal Act and accompanying implementing regulations (California Code of Regulations Division 5.5 13001 et. seq.) require that the LCP Implementing Ordinances include procedures for carrying out this transferred authority and set forth minimum standards for post certification noticing and hearing requirements.

2. Land Use Plan Policies

The LUP contains extensive policies designed to ensure that development is carried out in a manner consistent with the Coastal Act. The LUP also contains numerous policies to guide the issuance of coastal development permits.

3. Local Implementation Plan Provisions

Permit procedures are included in the Malibu Local Implementation Plan to provide the regulatory framework by which those LUP policies are carried out. There are several essential procedural components provided to ensure that the LIP conforms with and is adequate to carry out the policies and provisions of the Malibu Land Use Plan. These are: 1) requirements for issuing coastal development permits; 2) public hearing and noticing requirements; 3) procedures for the appeal of local actions on coastal development permits; 4) enforcement provisions; and, 5) procedures for amendments of the LCP. Procedures to address these components are contained in Chapter 13 (Coastal Development Permits) and Chapter 19 (LCP Amendments) of the Local Implementation Plan.

Coastal Development Permit Procedures.

The purpose and intent of Chapter 13 of the LIP is to establish procedures for the City to process coastal development permits consistent with the certified LCP, the Coastal Act and the California Code of Regulations.

The Coastal Development Permit (CDP) Ordinance (Chapter 13) specifies what development requires a local coastal development permit but it also includes exemptions from these requirements. Most improvements to single family residences, repair and maintenance activities and improvements to other structures are exempt

consistent with Coastal Act section 30610. However, consistent with regulations 13250-13253, the ordinance specifies those improvements and repair and maintenance activities that are not exempt because they result in a risk of significant adverse impacts to coastal resources. Other exemptions include activities specified by Coastal Act 30610 and implementing regulations including exemptions for certain temporary events consistent with LUP Policy 2.19 and certain utility connections. Exemptions are also provided for rebuilding of structures destroyed by natural disaster. Structures, including legal nonconforming structures as defined in Section 13.5(A) of the LIP destroyed by natural disaster can be rebuilt if for the same use, in the same location and no more than 10% larger in size without a coastal development permit.

The ordinance also includes provisions to guide review of coastal permits for legal non-conforming uses or structures. An LCP and the coastal development permits issued pursuant to it are the principal mechanisms by which state coastal policies are applied at the local level. There are currently many older existing structures in the City that were constructed prior to the adoption of the Coastal Act policies. These structures may have been sited and designed in a manner contradictory to coastal management policy and standards. Numerous other structures were permitted and built prior to adoption of this LCP. The LUP Policies 4.15 and 5.53 assure that if these legal nonconforming structures are substantially rebuilt that they will be brought into compliance with LCP standards. These policies state that existing, lawfully established structures built prior to the effective date of the Coastal Act that do not conform to the provisions of the LCP may be maintained and repaired. Additionally, additions or improvements may be made to such structures provided that such additions or improvements themselves conform to the LCP. However, substantial additions to non-conforming structures on a blufftop or beach cannot be permitted unless the entire structure is brought into conformance with the policies and standards of the LCP. Finally, demolition and site redevelopment cannot be permitted unless all structures are brought into conformance with the policies and standards of the LCP.

The City's existing Interim Zoning Ordinance (IZO) Chapter 9.4.00 (Grandfathering Provisions) includes some provisions that more broadly allow additions, repairs and renovation without regard to whether they would increase the extent of nonconformity. The IZO provides discretion to the Planning Director to allow a wide variety of improvements and modifications to nonconforming uses, including additional square footage improvements, modifications to setbacks, increases in height and addition of parking, without requiring conformance with current standards. Such allowances would permit substantial development upgrades to existing nonconforming structures. The LIP does not include the "Grandfathering" provision because it is not consistent with the LUP Policies 4.15, 5.53, 5.54 and 5.55 that relate to non-conforming uses.

The coastal permitting procedures also allow a variety of repair, maintenance and improvements to legal nonconforming structures, consistent with LUP policies. Section 13.5 (A) of the LIP assures that provisions applied to nonconforming use or structures apply only to any existing and lawfully established or lawfully authorized uses and

structures that are not otherwise exempt from permit requirements. The CDP ordinance recognizes that nonconforming uses can continue to be repaired and maintained, but it includes additional criteria for evaluating whether additional, improvements increase the extent of non-conformity or are so substantial as to comprise a new development for which compliance with current LCP standards is required. As proposed this will ensure that these nonconforming uses are not expanded and improved in a manner that increases impacts on coastal resources.

The CDP ordinance (Chapter 13) contains requirements for filing coastal development permits that ensure that adequate information is submitted to evaluate proposals for consistency with the LCP. Required findings for approval of coastal development permits are specified consistent with LUP policy 5.1, including special public access findings for projects located between the first public road and the sea.

The CDP ordinance reflects when the Commission retains authority to issue coastal development in areas of continuing jurisdiction specified in the Coastal Act. It reflects when the Commission retains authority over coastal development permits issued by the Commission in order to maintain and enforce the terms and conditions of development and development mitigation authorized by the Commission.

Noticing and hearing procedures are provided that conform to the Coastal Act's implementing regulations and LUP policies 2.12, 3.39. Provisions are included to allow for issuance of administrative permits, emergency permits, variances and site plan review/minor modifications consistent with the Coastal Act and implementing regulations as well as LUP Policies 3.27,4.56, and 4.57.

The ordinance contains procedures for appeal of local coastal development permits as well as for amendments, revocation reconsideration of permits. Enforcement and penalties are detailed consistent with Coastal Act Section 30800-30822.

Because executed development agreements serve to provide long-term certainty in the development process by creating a long-term agreement binding the City, the ordinance allows for the execution of development agreements provided they are incorporated into the LCP through an LCP amendment that is certified by the Commission.

As proposed, the Coastal Development Permit Ordinance (Chapter 13) adheres to the regulatory process outlined in the Coastal Act, the California Code of Regulations, and LUP policies related to the administration of coastal development permits. These procedures will assure that coastal development permits are administered and issued to adequately and fully carry out the certified Land Use Plan, promote reasonable and sound development practices and preserve the City's coastal resources and public access opportunities.

K. LCP Amendment Procedures

1. Coastal Act Policies

The Coastal Act (sections 30514 –30515 and implementing regulation (Sections 13551-13555 and Sections 13544, 13544.5, 13511-13515) provide for the amendment of certified Local Coastal Programs. Sections 30514 and 30515 provide:

Section 30514 (a), (b) and (e)

(a) A certified local coastal program and all local implementing ordinances, regulations, and other actions may be amended by the appropriate local government, but no such amendment shall take effect until it has been certified by the commission.

(b) Any proposed amendments to a certified local coastal program shall be submitted to, and processed by, the commission in accordance with the applicable procedures and time limits specified in Sections 30512 and 30513, except that the commission shall make no determination as to whether a proposed amendment raises a substantial issue as to conformity with the policies of Chapter 3 (commencing with Section 30200) as would otherwise be required by Section 30512. In no event shall there be more than three of these submittals of proposed amendments in any calendar year. However, there are no limitations on the number of amendments included in each of the three submittals.

(e) For purposes of this section, "amendment of a certified local coastal program" includes, but is not limited to, any action by a local government that authorizes the use of a parcel of land other than a use that is designated in the certified local coastal program as a permitted use of the parcel.

Section 30515

Any person authorized to undertake a public works project or proposing an energy facility development may request any local government to amend its certified local coastal program, if the purpose of the proposed amendment is to meet public needs of an area greater than that included within such certified local coastal program that had not been anticipated by the person making the request at the time the local coastal program was before the commission for certification. If, after review, the local government determines that the amendment requested would be in conformity with the policies of this division, it may amend its certified local coastal program as provided in Section 30514.

If the local government does not amend its local coastal program, such person may file with the commission a request for amendment which shall set forth the reasons why the proposed amendment is necessary and how such amendment is in conformity

with the policies of this division. The local government shall be provided an opportunity to set forth the reasons for its action. The commission may, after public hearing, approve and certify the proposed amendment it finds, after a careful balancing of social, economic, and environmental effects, that to do otherwise would adversely affect the public welfare, that a public need of an area greater than that included within the certified local coastal program would be met, that there is no feasible, less environmentally damaging alternative way to meet such need, and that the proposed amendment is in conformity with the policies of this division.

2. Land Use Plan Policies

Several policies of the LUP identify circumstances where LCP Amendments may be required, for example, policies 2.48, 2.81,3.5,5.17 and 7.12.

3. Local Implementation Plan Provisions

Chapter 19 of the Local Implementation Plan contains provisions for amendments of the LCP, including:

- Procedures for how amendment requests may be initiated at the local level;
- The required form and content of the submittal consistent with California Code of regulations 13552;
- The requirements for adequate public review of amendment documents at least 6 weeks prior to final local action on an amendment request;
- Procedures for conducting local hearings on proposed amendments;
- Required findings for adoption of an amendment;
- The process for submittal to the Coastal Commission for review; and,
- Provisions that assure that no amendment shall take affect unless and until effectively certified by the Coastal Commission.

The LIP assures that in considering a proposed amendment, the City will have detailed and adequate information to evaluate the impact of the proposed ordinance on coastal resources, to identify feasible planning alternatives and to evaluate a proposed amendment for consistency with provisions of the Coastal Act. The ordinance also includes procedures to address proposed development of public works or energy facilities that may be of greater than local concern and for which consideration of LCP amendments may be necessary.

The LIP assures that proposed LCP Amendments will be processed in a manner than affords the public maximum opportunity to participate in the LCP amendment decision making at the local level as required by the LUP and the Coastal Act. It requires an adequate document review period and provides public noticing and hearings procedures for Planning Commission and Council review of proposed amendments.

Chapter 19 also assures that LCP amendments will be submitted for certification to the Commission with adequate information and public comments for the Commission in turn to evaluate the LCP amendment for consistency with the Coastal Act.

As proposed, these regulations make certain that the LCP as adopted by the Commission will continue to provide an adequate framework to guide local development decisionmaking consistent with provisions of the Coastal Act. It assures that no changes will occur to the policies and standards of the certified LCP without full evaluation at the local level and without certification by the Coastal Commission. As such the Commission finds that the LCP Amendment provisions of Chapter 19 of the Malibu LIP conform with and are adequate to carry out the policies of the Malibu Land Use Plan.

L. California Environmental Quality Act.

Section 21080.9 of the Public Resources Code (CEQA) exempts local governments from the requirement of preparing an environmental impact report (EIR) in connection with a Local Coastal Program (LCP). Instead, certification of an LCP by the Coastal Commission is subject to the requirements of CEQA. The Coastal Commission's regulatory program involving the preparation, approval and certification of local coastal programs has been certified by the Resources Agency under Public Resources Code Section 21080.5 as the functional equivalent of CEQA review. As a result of this certification, the Coastal Commission is exempt from the requirement of preparing an EIR in connection with a local coastal program. As set forth above, the Commission finds that the Malibu LCP conforms with the Coastal Act policies regarding protection of the environment. The Commission finds that approval of the LCP will not result in significant adverse environmental impacts within the meaning of CEQA. The Commission further finds that there are no feasible alternatives or additional mitigation measures that would substantially lessen any significant adverse impact on the environment from approval of the LCP.

EXHIBIT 1

POLICIES MODIFIED AT THE SEPTEMBER 13, 2002 HEARING

Attached are those pages of the adopted Malibu Local Coastal Program that contain policies and provisions which were modified during the public hearing on September 13, 2002

Issue	LUP Page #	LUP Policy #	LIP Page #	LIP Section #
Bluffs Park	Page 32	P2.78		
ESHA/Stream Buffers and Point Dume Canyons	Pages 53-55 LUP Marine Resources Map #2	P3.23, 3.25, and 3.35 LIP ESHA Overlay Map #2	Pages 128-129	4.6.1
Maximum Development Area	Pages 50-51	P3.12		
Civic Center Policies	Pages 101-102	P5.15 through P5.19	Pages 76-77	3.8 (A)(5)

2.75 Accessways or areas adjacent to accessways that have been severely degraded as the result of intense and/or unrestricted use should be restored by such techniques as revegetation with native plants, trail consolidation and improvement and through the provision of support facilities such as parking, defined trail and/or beach walk stairway systems, raised wooden boardwalks, trash receptacles, restrooms, picnic areas. In severely degraded areas controlled and limited public access may be allowed during the recovery period subject to a coastal development permit and consultation with appropriate public agencies and/or resource specialists. Any limitation of public use shall be evaluated periodically to determine the need for continued limited use and the limitation shall be removed at the termination of the recovery period.

2.76 Proposals to open and provide increased public access to El Sol and Dan Blocker Beaches, where feasible, shall be supported and coordinated with the Los Angeles County Department of Beaches and Harbors.

2.77 Acquisition of parcels owned by Caltrans, which may be appropriate for public recreational use, should be supported.

2.78 If an agreement is reached by the State Department of Parks and Recreation to relocate the existing athletic fields at Malibu Bluffs State Park out of the prime view shed of the park onto the 24.9 acre Crummer Family Trust parcel which is adjacent to the State Park on the east and south of Pacific Coast Highway up to 8 residential units shall be permitted on the remainder of the (Crummer Trust) site. Said agreement shall cause the redesignation of the subject site to Residential in the LCP. Said agreement shall not exempt the residential development from compliance with all other provisions of the LCP. If no agreement is reached to relocate the existing athletic fields the permitted use on the Crummer Trust parcel shall remain CV-2 (Commercial Visitor Serving).

2.79 The City should continue to support and coordinate with the California Department of Parks and Recreation in improving access to Point Dume State Preserve by ensuring that adequate public parking is provided consistent with the terms of the settlement agreement between the City, State Department of Parks and Recreation and the Coastal Commission. Where applicable, the City should support and coordinate with the Department of Parks and Recreation in designing and constructing trails consistent with ongoing efforts to restore, enhance and protect sensitive resources.

2.80 In consultation and coordination with the State Lands Commission, all unauthorized or illegal development, including signs, which encroach onto

3.22 Interpretive signage may be used in ESHA accessible to the public to provide information about the value and need to protect sensitive resources.

c. Areas adjacent to ESHA and Parks

3.23 Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect. All buffers shall be a minimum of 100 feet in width, except for the case addressed in Policy 3.27.

3.24 New development adjacent to parklands, where the purpose of the park is to protect the natural environment and ESHA, shall be sited and designed to minimize impacts to habitat and recreational opportunities, to the maximum extent feasible. Natural vegetation buffer areas shall be provided around parklands. Buffers shall be of a sufficient size to prevent impacts to parkland resources, but in no case shall they be less than 100 feet in width.

3.25 New development, including, but not limited to, vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted in required ESHA or park buffer areas, except for that case addressed in Policy 3.27. Habitat restoration and invasive plant eradication may be permitted within required buffer areas if designed to protect and enhance habitat values.

3.26 Required buffer areas shall extend from the following points:

- The outer edge of the canopy of riparian vegetation for riparian ESHA.
- The outer edge of the tree canopy for oak or other native woodland ESHA.
- The top of bluff for coastal bluff ESHA

3.27 Buffers shall be provided from coastal sage scrub and chaparral ESHA that are of sufficient width to ensure that no required fuel modification (Zones A, B, or C, if required) will extend into the ESHA and that no structures will be within 100 feet of the outer edge of the plants that comprise the habitat.

3.28 Variances or modifications to buffers or other ESHA protection standards shall not be granted, except where there is no other feasible alternative for siting the development and it does not exceed the limits on allowable development pursuant to Policies 3.10-3.13.

3.29 Modifications to required development standards that are not related to ESHA protection (street setbacks, height limits, etc.) shall be permitted where necessary to avoid or minimize impacts to ESHA

3.30 Protection of ESHA and public access shall take priority over other development standards and where there is any conflict between general development standards and ESHA and/or public access protection, the standards that are most protective of ESHA and public access shall have precedence.

3.31 Permitted development located within or adjacent to ESHA and/or parklands that adversely impact those areas may include open space or conservation restrictions or easements over ESHA, ESHA buffer, or parkland buffer in order to protect resources.

d. Stream Protection

3.32 Channelizations or other substantial alterations of streams shall be prohibited except for: 1) necessary water supply projects where no feasible alternative exists; 2) flood protection for existing development where there is no other feasible alternative, or 3) the improvement of fish and wildlife habitat. Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources, including the depletion of groundwater, and shall include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over "hard" solutions such as concrete or riprap channels.

3.33 Alteration of natural streams for the purpose of stream road crossings shall be prohibited, except where the alteration is not substantial, there is no other feasible alternative to provide access to public recreation areas or development on legal parcels, and the alteration does not restrict movement of fish or other aquatic wildlife. Any other stream crossings shall be accomplished by bridging. Bridge columns shall be located outside streambeds and banks. Wherever possible, shared bridges shall be used for providing access to multiple home sites. Culverts may be

utilized for the crossing of minor drainages lacking beds and banks and riparian vegetation. If enlargement, replacement or improvements to the existing at grade crossing of Malibu Creek at Cross Creek Road are determined to be necessary, alternative designs, including, but not limited to, a caisson-supported bridge, that minimize impacts to ESHA shall be considered. In any case, any new improvement to this crossing shall minimize impacts to the movement of fish or other aquatic wildlife to the maximum extent feasible.

3.34 Bioengineering methods or "soft solutions" should be developed as an alternative to constructing rock revetments, vertical retaining walls or other "hard structures" along lower Malibu Creek. If bioengineering methods are demonstrated to be infeasible, then other alternatives may be considered. Any applications for protective measures along lower Malibu Creek shall demonstrate that existing development in the Civic Center is in danger from flood hazards, that the proposed protective device is the least environmentally damaging alternative, that it is sited and designed to avoid and minimize impacts to the habitat values of the riparian corridor along the creek and the recreational and public access use of State Park property along the creek, and that any unavoidable impacts have been mitigated to the maximum extent feasible.

3.35 Development in the Point Dume area shall be designed to avoid encroachment on slopes of 25 percent grade or steeper.

e. Application Requirements

3.36 New development shall include an inventory conducted by a qualified biologist of the plant and animal species present on the project site. If the initial inventory indicates the presence or potential for sensitive species or habitat on the project site, a detailed biological study shall be required.

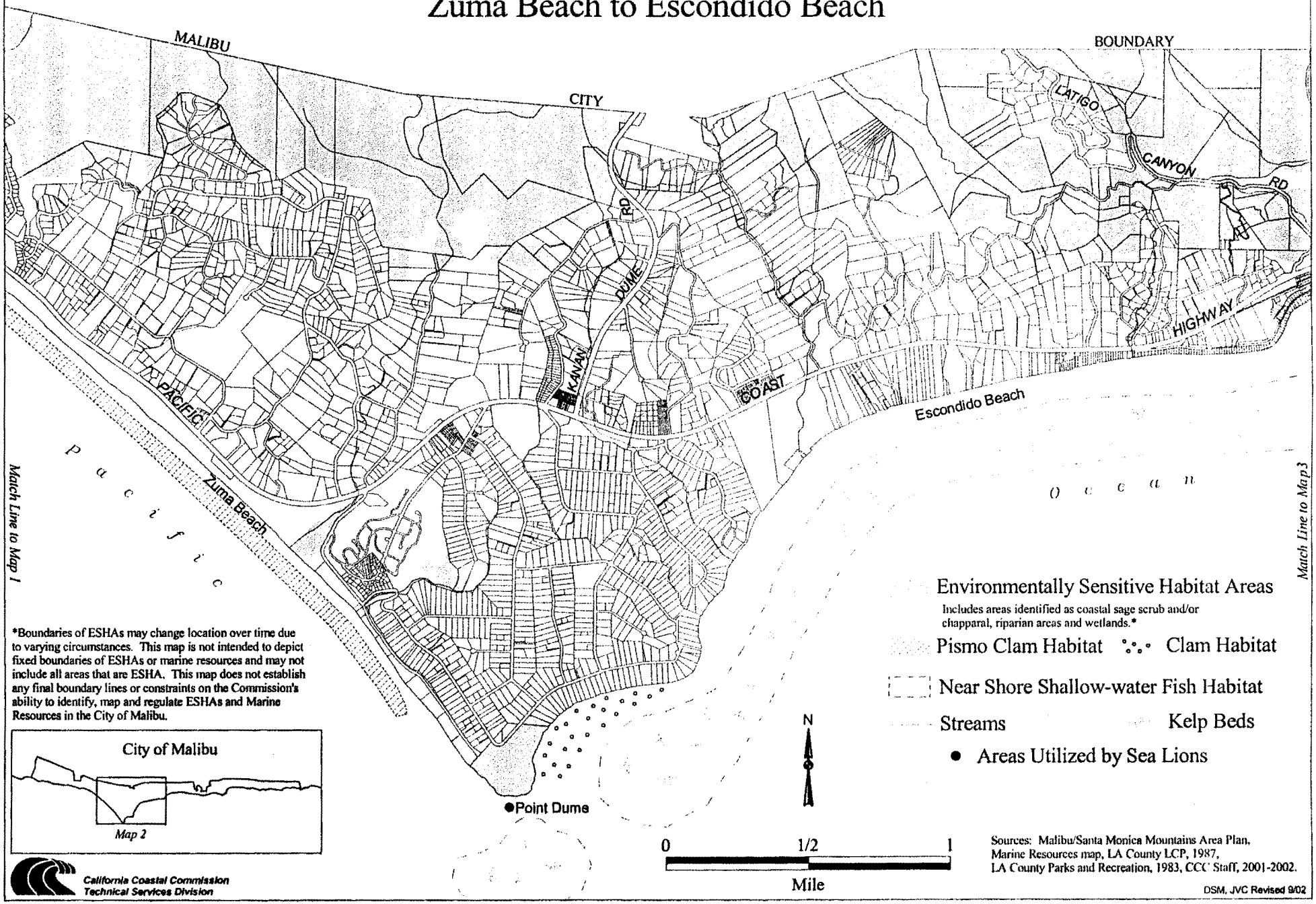
3.37 New development within or adjacent to ESHA shall include a detailed biological study of the site.

f. Environmental Review

3.38 The Environmental Review Board (ERB) shall be comprised of qualified professionals with technical expertise in biological resources (marine/coastal, wetland/riparian protection and restoration, upland habitats and connectivity), geology (coastal protection devices, slope

Local Coastal Program - City of Malibu

ESHA and Marine Resources Map 2: Zuma Beach to Escondido Beach



Environmentally Sensitive Habitat Areas

Includes areas identified as coastal sage scrub and/or chapparal, riparian areas and wetlands.*

Pismo Clam Habitat

Clam Habitat

Near Shore Shallow-water Fish Habitat

Streams

Kelp Beds

Areas Utilized by Sea Lions

*Boundaries of ESHAs may change location over time due to varying circumstances. This map is not intended to depict fixed boundaries of ESHAs or marine resources and may not include all areas that are ESHA. This map does not establish any final boundary lines or constraints on the Commission's ability to identify, map and regulate ESHAs and Marine Resources in the City of Malibu.

Sources: Malibu/Santa Monica Mountains Area Plan, Marine Resources map, LA County LCP, 1987, LA County Parks and Recreation, 1983, CCC Staff, 2001-2002.

California Coastal Commission
Technical Services Division

DSM, JVC Revised 9/02

4.5.4 Environmentally Sensitive Habitat Buffers

A. Public accessways and trails, including directional signs

B. Interpretive signage designed to provide information about the value and protection of the resources

C. Restoration projects where the primary purpose is restoration of the habitat.

D. Invasive plant eradication projects if they are designed to protect and enhance habitat values.

4.6. DEVELOPMENT STANDARDS

4.6.1. Buffers

New development adjacent to the following habitats shall provide native vegetation buffer areas to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the habitat they are designed to protect. Vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted within buffers except as provided in Section 4.6.1 (E) or (F) of the Malibu LIP. The following buffer standards shall apply:

A. Stream/Riparian

New development shall provide a buffer of no less than 100 feet in width from the outer edge of the canopy of riparian vegetation. Where riparian vegetation is not present, the buffer shall be measured from the outer edge of the bank of the subject stream.

However, in the Point Dume area, new development shall be designed to avoid encroachment on slopes of 25 percent grade or steeper.

B. Wetlands

New development shall provide a buffer of no less than 100 feet in width from the upland limit of the wetland.

C. Woodland ESHA

New development shall provide a buffer of no less than 100 feet in width from the outer edge of the tree canopy for oak or other native woodland

D. Coastal Bluff ESHA

New development shall provide a buffer of no less than 100 feet from the bluff edge.

E. Coastal Sage Scrub ESHA

New development shall provide a buffer of sufficient width to ensure that no required fuel modification area (Zones A, B, and C, if required) will extend into the ESHA and that no structures will be within 100 feet of the outer edge of the plants that comprise the coastal sage scrub plant community.

F. Chaparral ESHA

New development shall provide a buffer of sufficient width to ensure that no required fuel modification area (Zones A, B, and C, if required) will extend into the ESHA and that no structures will be within 100 feet of the outer edge of the plants that comprise the chaparral plant community.

G. Other ESHA

For other ESHA areas not listed above, the buffer recommended by the Environmental Review Board or City biologist, in consultation with the California Department of Fish and Game, as necessary to avoid adverse impacts to the ESHA shall be required.

4.6.2. Lighting

Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity features, shielded, and directed away from ESHA to minimize impacts on wildlife. Night lighting for sports courts or other private recreational facilities in ESHA, ESHA buffer, or where night lighting would increase illumination in ESHA shall be prohibited. Permitted lighting shall conform to the following standards:

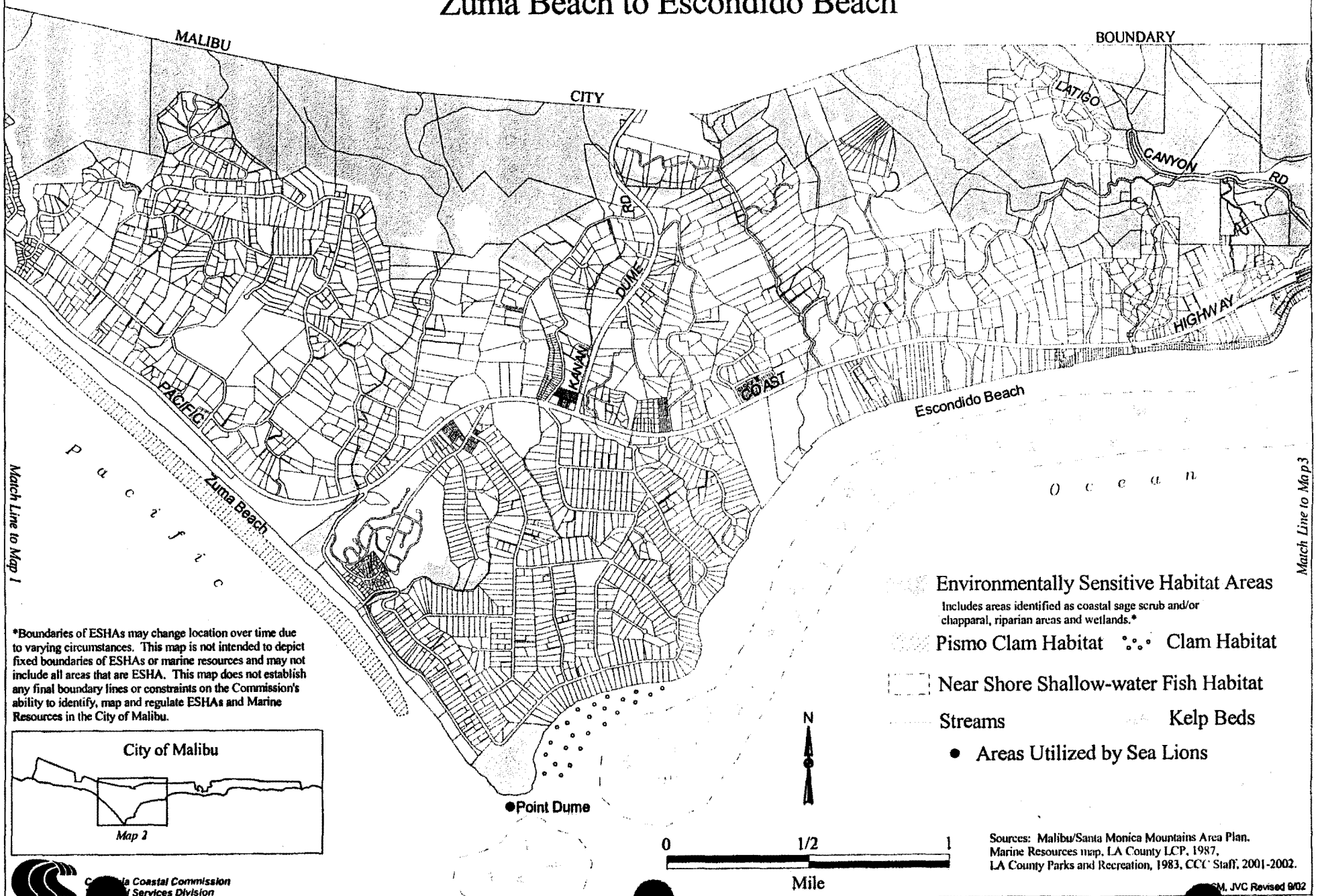
1. The minimum necessary to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent, unless a higher wattage is authorized by the Planning Director.

2. Security lighting attached to the residence that is controlled by motion detectors and is limited to 60 watts, or the equivalent.

3. The minimum lighting necessary for safe vehicular use of the driveway. The lighting shall be limited to 60 watts, or the equivalent.

Local Coastal Program - City of Malibu

ESHA Overlay Map 2:
Zuma Beach to Escondido Beach



Environmentally Sensitive Habitat Areas

Includes areas identified as coastal sage scrub and/or chapparal, riparian areas and wetlands.*

Pismo Clam Habitat Clam Habitat

Near Shore Shallow-water Fish Habitat

Streams Kelp Beds

● Areas Utilized by Sea Lions

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Sources: Malibu/Santa Monica Mountains Area Plan. Marine Resources map, LA County LCP, 1987, LA County Parks and Recreation, 1983, CCC Staff, 2001-2002.

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Services Division

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considered ESHA and not subject to the ESHA protection policies of the LUP. If the area is determined to be adjacent to ESHA, Policies 3.23 to 3.31 shall apply. The ERB shall provide recommendations to the applicable decision-making body (Planning Director, Planning Commission, or City Council) as to the ESHA status of the area in question. If the decision-making body finds that an area previously mapped as ESHA does not meet the definition of ESHA, a modification shall be made to the LUP ESHA Map, as part of a map update, consistent with Policy 3.5. If an area is not ESHA or ESHA buffer, LCP policies and standards for protection of ESHA and ESHA buffer shall not apply and development may be allowed (consistent with other LCP requirements) even if the ESHA map has not been amended.

b. ESHA Protection

3.8 Environmentally Sensitive Habitat Areas (ESHAs) shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

3.9 Public accessways and trails are considered resource dependent uses. Accessways and trails located within or adjacent to ESHA shall be sited to minimize impacts to ESHA to the maximum extent feasible. Measures, including but not limited to, signage, placement of boardwalks, and limited fencing shall be implemented as necessary to protect ESHA.

3.10 If the application of the policies and standards contained in this LCP regarding use of property designated as Environmentally Sensitive Habitat Area, including the restriction of ESHA to only resource-dependent use, would likely constitute a taking of private property, then a use that is not consistent with the Environmentally Sensitive Habitat Area provisions of the LCP shall be allowed on the property, provided such use is consistent with all other applicable policies and is the minimum amount of development necessary to avoid a taking.

3.11 Applications for development of a non-resource dependent use within ESHA or for development that is not consistent with all ESHA policies and standards of the LCP shall demonstrate the extent of ESHA on the property.

3.12 No development shall be allowed in wetlands unless it is authorized under Policy 3.89. For all ESHA other than wetlands, the allowable development area (including the building pad and all graded slopes, if any, as well any

permitted structures) on parcels where all feasible building sites are ESHA or ESHA buffer shall be 10,000 square feet or 25 percent of the parcel size, whichever is less. If it is demonstrated that it is not feasible from an engineering standpoint to include all graded slopes within the approved development area, then graded slope areas may be excluded from the approved development area. For parcels over 40 acres in size, the maximum development area may be increased by 500 sq. ft. for each additional acre in parcel size to a maximum of 43,560-sq. ft. (1-acre) in size. The development must be sited to avoid destruction of riparian habitat to the maximum extent feasible. These development areas shall be reduced, or no development shall be allowed, if necessary to avoid a nuisance, as defined in California Civil Code Section 3479. Mitigation of adverse impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives shall be required.

3.13 The allowable development area may be increased for projects that comprise two or more legal lots, if the existing lots are merged into one lot and one consolidated development area is provided with one access road or driveway. The allowable development area shall not exceed the total of the development areas allowed for each individual parcel in Policy 3.12.

3.14 New development shall be sited and designed to avoid impacts to ESHA. If there is no feasible alternative that can eliminate all impacts, then the alternative that would result in the fewest or least significant impacts shall be selected. Impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives shall be fully mitigated, with priority given to on-site mitigation. Off-site mitigation measures shall only be approved when it is not feasible to fully mitigate impacts on-site or where off-site mitigation is more protective in the context of a Natural Community Conservation Plan that is certified by the Commission as an amendment to the LCP. Mitigation shall not substitute for implementation of the project alternative that would avoid impacts to ESHA.

3.15 Mitigation measures for impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives, including habitat restoration and/or enhancement shall be monitored for a period of no less than five years following completion. Specific mitigation objectives and performance standards shall be designed to measure the success of the restoration and/or enhancement. Mid-course corrections shall be implemented if necessary. Monitoring reports shall be provided to the City annually and at the conclusion of the five-year monitoring period that document the success or failure of the mitigation. If performance standards are not met by the end of five years, the monitoring period shall

5.11 Recreational development and commercial visitor-serving facilities shall have priority over non-coastal dependent uses. All uses shall be consistent with protection of public access and ESHA.

5.12 Visitor serving retail uses shall be permitted in all commercial zones in the City. Visitor serving retail uses shall fit the character and scale of the surrounding community.

5.13 Public use of private parking facilities currently underutilized on weekends (i.e. serving office buildings) adjacent to the beach shall be a permitted use in all commercial zones.

5.14 All new commercial and higher density residential development must be located and designed to facilitate provision or extension of transit service to the development and must provide nonautomobile circulation within the development to the extent feasible.

5. Civic Center Policies

5.15 No development shall be approved on any parcel located within the Civic Center Overlay Area (LIP Zoning Map 5), other than improvements to existing uses, for a period of two (2) years commencing September 15, 2002, or until a Specific Plan, or other comprehensive plan encompassing all parcels located within the Civic Center Overlay Area is adopted by the City and certified by the Coastal Commission as an LCP amendment.

5.16 The provisions of Policy 5.15 shall not apply to coastal development permits for uses that are visitor-serving or part of a development agreement approved under a LCP amendment certified by the Coastal Commission. Any coastal development permit approved shall include a wetland delineation for the project site(s).

5.17 The components of a specific plan or other comprehensive plan for the Civic Center area shall include, but not be limited to:

- Land use designations and permitted uses.
- Provision for visitor serving commercial uses, including overnight accommodations, throughout the area.
- Maximum density and intensity standards, including floor area ratios for commercial use not to exceed the maximum floor area ratio currently allowed pursuant to the Land Use Plan where public benefits and amenities are provided as part of the project.

- Development standards, including heights, lot coverage, setbacks, and open space requirements.
- Measures to protect wetland habitat identified through a wetland delineation prepared for the Civic Center area pursuant to LUP Policy 3.81a.
- Provisions for shared or consolidated parking areas.
- Provisions for public open space areas, and restoration or enhancement of habitat.
- Design guidelines, including architectural design, lighting, signs, and landscaping.
- Provisions for mixed use development.

5.18 Other than as provided in 5.15 through 5.17 above, subsequent to September 15, 2004, if no Specific Plan, Development Agreement or other comprehensive plan has been approved by the Coastal Commission as an LCP amendment, Visitor-Serving Commercial, General Commercial, and Community Commercial uses shall be allowed on individual parcels located in the Civic Center Overlay area, as designated by the Land Use Map, consistent with all policies of the LCP. A maximum FAR of 0.15 is permitted, except that the project FAR may be increased to no greater than a maximum of 0.20 FAR if public benefits and amenities, including public open space and habitat restoration or enhancement, are provided and the project site is included as part of a planned development or development agreement for multiple parcels, approved under a LCP amendment certified by the California Coastal Commission. Any LCP amendment to provide for a planned development or development agreement shall be subject to a wetland delineation determination in accordance with the requirements of Policy 3.81(a) prior to approval.

5.19 Subsequent to September 15, 2004, if no Specific Plan or comprehensive plan is approved by the Coastal Commission as an LCP amendment, applications for new development, other than improvements to existing uses, on individual parcels located in the Civic Center Overlay area shall be subject to a wetland delineation determination in accordance with the requirements of Policy 3.81(a) prior to approval of any new development on the site.

6. Residential Development Policies

5.20 All residential development, including land divisions and lot line adjustments, shall conform to all applicable LCP policies, including density provisions. Allowable densities are stated as maximums. Compliance with

5. Site Development Criteria. All proposed commercial construction shall comply with the following site development standards:

a. The gross square footage of all buildings on a given parcel shall be limited to a maximum Floor Area Ratio (F.A.R.) of 0.15, or 15% of the lot area (excluding any street rights of way). Additional gross square footage may be approved, up to the maximum allowed for the parcel under the Land Use Plan provided the increase complies with the provisions of Section e and/or f below, where applicable. Additional square footage for commercial development located in the Civic Center area may be approved, up to the maximum allowed for the parcel under the Land Use Plan, only if it is included as part of a specific plan, planned development or other comprehensive plan approved as a Local Coastal Program amendment certified by the California Coastal Commission in compliance with the provisions of Section e below.

b. 40% of the lot area shall be devoted to landscaping. An additional 25% of the lot area shall be devoted to open space. Open space areas may include courtyards, patios, natural open space and additional landscaping. Parking lots, buildings, exterior hallways and stairways shall not qualify as open space.

c. Commercial buildings located within floodplains, liquefaction or earthquake fault zones shall comply with any other site specific hydrologic, geologic and seismic conditions based on the required hydrology soils and geotechnical reports and final recommendations from the City Geologist or City Engineer.

d. The applicant shall provide appropriate graphic information and calculations on the site plan to satisfy compliance with this subsection.

e. Civic Center Development Criteria. Lands within the Civic Center Overlay Area for which a Civic Center Specific Plan, planned development, development agreement, or other comprehensive plan has been approved pursuant to the requirements of the Land Use Plan shall be developed in accordance with said plan or agreement. Any specific plan, planned development, development agreement, or other comprehensive plan shall not be effective until adopted by the City and certified by the Coastal Commission as an amendment to the LCP. This section does not apply to improvements to existing development in the Civic Center or development already approved by the Coastal Commission and the City.

(1) No development shall be approved on any parcel located within the Civic Center Overlay Area (LIP Zoning Map 5), other than improvements to existing uses, for a period of two (2) years commencing September 15, 2002, or until a Specific Plan, or other comprehensive plan encompassing all parcels located within the Civic Center Overlay Area is adopted by the City and certified by the Coastal Commission as an LCP amendment.

(2) The provisions in (1) above shall not apply to coastal development permits for uses that are visitor-serving or part of a development agreement approved under a LCP amendment certified by the Coastal Commission. Any coastal development permit approved shall include a wetland delineation for the project site(s).

(3) If a specific plan or other comprehensive plan is adopted by the City and certified by the Coastal Commission, commercial development shall be allowed in the Civic Center Overlay area up to the maximum Floor Area Ratio (FAR) allowed for the specific commercial use designation under the Land Use Plan.

(4) Other than as provided in (1) and (2) above, subsequent to September 15, 2004, if no specific plan, development agreement, or other comprehensive plan has been approved by the Coastal Commission as an LCP amendment, commercial uses shall be allowed on individual parcels located in the Civic Center Overlay area as designated by the Land Use Plan Map, consistent with all policies of the LCP. A maximum FAR of 0.15 is permitted, except that the FAR may be increased to no greater than a maximum of 0.20 if public benefits and amenities, including public open space and, where applicable, habitat restoration or enhancement, are provided and the project site is included as part of a planned development or development agreement for multiple parcels, approved under a LCP amendment by the Coastal Commission. Any LCP amendment to provide for a planned development or development agreement shall be subject to a wetland delineation determination in accordance with policy 4.4.3(B) of the Malibu LIP prior to approval.

(5) Subsequent to September 15, 2004, if no specific plan or other comprehensive plan has been approved by the Coastal Commission as an LCP amendment, applications for new commercial development, other than improvements to existing uses, on individual parcels located in the Civic Center Overlay area shall be subject to a wetland delineation determination in accordance with policy 4.4.3(B) of the Malibu LIP prior to approval of any new development on the site.

f. Additional Square Footage. The City Council shall have the authority to approve additional square footage for commercial development, except within the Civic Center area, as provided in Section 3.8 (A)(5) of the Malibu LIP, where the applicant has offered to the City public benefits and amenities in connection with a project subject to a Development Agreement processed pursuant to Section 13.28 of the Malibu LIP. In considering a request for additional square footage, the City Council shall apply one of the following Guidelines:

The Increase in Land Value Model - The economic value of the public benefits and amenities offered by the applicant should be at least 50% of the Increase in Land Value attributable to the additional square footage, determined as follows: The lot area needed to build the proposed square