

## CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA  
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# W 11g

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Hearing Date: 11/14/2007  
Comm Action:



## **STAFF REPORT: REGULAR CALENDAR**

**APPLICATION NO.:** 4-07-014

**APPLICANT:** Marc Lane & Samatha Blake

**AGENT:** None

**PROJECT LOCATION:** 24071 Hovenweep Lane, Malibu, Los Angeles County

**PROJECT DESCRIPTION:** Construct a 4,771 sq ft., three-story single family residence with an attached five car tandem 1,917 sq. ft. basement garage, solar photovoltaic, 677 ft. long partially paved driveway, septic system, water tank, temporary residential trailer and two storage containers, terraced gardens and landscaping, 6 ft. high fire wall and fence, remove fence enclosure, and 2,320 cu. yds. of grading (1,160 cu. yds. of cut and 1,160 cu. yds. of fill)

Existing Lot Area:	36,833 sq. ft.
Building Coverage:	3,263 sq. ft.
Paved Coverage:	3,575 sq/ft
Landscape Coverage:	12,000 sq/ft
Parking Spaces:	5
Max. Ht. Above Finish Grade:	35 ft.

### **SUMMARY OF STAFF RECOMMENDATION:**

Staff recommends that the Commission **APPROVE** the proposed project with **Twelve (12) Special Conditions** addressing: 1) plans conforming to geologic recommendation, 2) drainage and polluted runoff control plans, 3) landscaping and erosion control, 4) assumption of risk, 5) structural appearance, 6) lighting restriction, 7) removal of natural vegetation, 8) habitat impact mitigation, 9) future development restriction, 10) deed restriction, 11) revised plans restricting maximum height to no more than 28 ft. above existing grade and requiring use of fire resistant materials, and 12) removal of temporary construction trailers.

The project site is located on a 0.85 acre lot on a site with a 4:1 south facing slope south of and below Schueren Road near its intersection with Saddle Peak and Stunt Roads within the upper reaches of the Las Flores Canyon Watershed of the Santa Monica Mountains in Los Angeles County. The site is accessed from Hovenweep Lane which extends approximately 560 ft. south to Schueren Road. The project site is

located within a large bend along Schueren Road, thus Schueren Road is located both immediately north and south of the subject site (Exhibits 1 and 2). The lot is located immediately east of a neighboring undeveloped 16 acre parcel of land owned by the Santa Monica Mountains National Recreation Area (National Park Service). The subject lot extends from Saddle Peak Road at the top along the northern property boundary to a relatively flat area along Hovenweep Lane on the southern property boundary; the building site on the lot is relatively narrow averaging about 100 feet wide. The majority of the subject lot is undeveloped and vegetated with dense chaparral considered environmentally sensitive habitat area (ESHA), except for the existing building site and area adjacent to Hovenweep Lane that were graded prior to the effective date of the Coastal Act in January 1977 which are now primarily vegetated with non-native grassland. There are no oak trees on the property. An approximate 17-foot wide section of the unimproved Hovenweep Lane extends across the property from the southwest to southeast corners of the lot. These existing disturbed areas pre-date the effective date of the Coastal Act in 1977 and are not considered ESHA.

The subject lot is surrounded to the south, southeast, and west by larger lots predominantly covered with chaparral vegetation and constitute an environmentally sensitive habitat area. Although all parcels immediately adjacent to the subject site are undeveloped, some residential development has occurred within the general vicinity on properties to the south and southeast.

The project site is visible from adjoining land located to the west owned by the Santa Monica Mountains National Recreation Area (SMNRA). The subject site and the adjoining lot owned by the SMNRA are located within a "bend" of Schueren Road; thus, Schueren Road is located to the north, south, and west of the site. To the northeast above the lot, a distance as close as 200 feet of the residence, there is a portion of Topanga State Park along Saddle Peak Road. There is one existing public trail, the "Backbone Trail" located as close as 300 feet from the residence, traversing the ridge to the north and above Schueren and Saddle Peak Roads. In addition, the Los Angeles County Department of Regional Planning and National Park Service have indicated that the planned future "Tuna Canyon Trail" would extend across a portion of the subject site (from the east to the northwestern corner of the site). Since the project site is located on a slope within a relatively undeveloped area dominated by chaparral vegetation, it will be visible from these two public lands and two trails.

The applicant proposes to construct the four-level residence (including the five-car basement garage, by cutting into the slope up to about 12 feet deep at the north side of the building pad at the 2,293 foot elevation level in order to reduce the visual obtrusiveness of the structure. The first floor on top of the garage is 2,154 sq. ft. at the 2,305 foot elevation. The second floor is 1,596 sq. ft. at the 2,316.5 foot elevation and the third floor loft is 1,021 sq. ft. at the 2,326 foot elevation. The roof peaks at the 2,340 foot elevation creating a total of 35 feet of height above the finished grade.

The applicant is also proposing improvements to an existing 17-foot wide access road, including a driveway to the project site in order to provide for a partially paved all-weather surface and widen the road to a uniform width of 20 feet. Staff notes that the

existing Hovenweep Lane appears in aerial photos of the site from 1977, which indicates that its creation from Schueren Road to the east side of the subject lot pre-dates the effective date of the Coastal Act.

Staff has explored alternatives to the project to minimize impacts to the chaparral ESHA and public views of the project. Given the steep slopes on site, relatively small size and narrow width of the lot, staff has concluded that the proposed location of the residence is the environmentally preferred alternative. In this case, although the residence will be located only 43 ft. from SMNRA/NPS land, the residence will be constructed on the far eastern portion of the lot and will be located as far from the adjacent SMNRA/NPS lands as feasible given the narrow width of the lot (approximately 100 ft. in width). However, the proposed four-level structure would extend 35 feet above finished grade and would be highly visible from several designated scenic public roads, public park lands, and both existing and future planned public equestrian/hiking trails. Further, as viewed from Schueren Road to the south, the actual height of the structure would appear to be approximately 45 feet in height, taking into account the visible face of the partially subterranean basement garage below the residence. Thus, as proposed, the project would adversely impact public views from a two scenic highways, scenic vistas from public view locations within State Park Lands and NPS lands, and existing and planned public trails. Mitigation measures, reducing the maximum height of the residence to 28 feet above existing grade would minimize these visual impacts. Thus, Special Condition No. 11 requires the applicant to submit revised plans, for the review and approval of the Executive Director, to reduce the height of the residence to a maximum of 28 feet above existing grade.

The standard of review for this project is the Chapter 3 policies of the Coastal Act. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

**LOCAL APPROVALS RECEIVED:** County of Los Angeles Fire Department Preliminary Fuel Modification Plan Approval and Fire Access Road Plan; County of Los Angeles Regional Planning Approval in Concept; Los Angeles County Department of Health Services approval for the septic system.

**SUBSTANTIVE FILE DOCUMENTS:** Los Angeles County Certificate of Compliance Exemption CC-4983 recorded as Document #82-1305018 on December 29, 1982; "Preliminary Engineering Geologic and Geotechnical Engineering Report for Proposed Single Family Dwelling at 24071 Hovenweep Lane, Malibu, California," prepared by Donald Kowalewsky, Environmental & Engineering Geology, on February 10, 2006; "Biological Assessment Study, Project APN 4453-024-003, Malibu," prepared by David Carroll and Associates, May 24, 2005.

**STAFF RECOMMENDATION:**

**I. Approval with Conditions**

The staff recommends that the Commission adopt the following resolution:

**MOTION:**        *I move that the Commission approve Coastal Development Permit No. 4-07-014 pursuant to the staff recommendation.*

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**RESOLUTION TO APPROVE THE PERMIT:**

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

**II. Standard Conditions**

**1. Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

**2. Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

**3. Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

**4. Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

**5. Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

### **III. Special Conditions**

#### **1. Plans Conforming to Geologic Recommendations**

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in the "Preliminary Engineering Geologic and Geotechnical Engineering Report for Proposed Single Family Dwelling at 24071 Hovenweep Lane, Malibu, California," prepared by Donald Kowalewsky, Environmental & Engineering Geology, on February 10, 2006; These recommendations, including recommendations concerning grading, foundations, slabs, retaining walls, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the consultant prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission that may be required by the consultant shall require amendment(s) to the permit(s) or new Coastal Development Permit(s).

#### **2. Drainage and Polluted Runoff Control Plans**

**A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit for the review and approval of the Executive Director, final drainage and runoff control plans, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of stormwater leaving the developed site. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is in conformance with geologist's recommendations. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

- (a) Selected BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85<sup>th</sup> percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.
- (b) Runoff shall be conveyed off site in a non-erosive manner.
- (c) Energy dissipating measures shall be installed at the terminus of outflow drains.

- (d) The plan shall include provisions for maintaining the drainage system, including structural BMPs, in a functional condition throughout the life of the approved development. Such maintenance shall include the following: (1) BMPs shall be inspected, cleaned and repaired when necessary prior to the onset of the storm season, no later than September 30<sup>th</sup> each year and (2) should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

### **3. Landscaping and Erosion Control Plans**

***Prior to issuance of a coastal development permit***, the applicant shall submit landscaping and erosion control plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The plans shall incorporate the criteria set forth below. All development shall conform to the approved landscaping and erosion control plans:

#### **A) Landscaping Plan**

- 1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within (60) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants, as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996. All native plant species shall be of local genetic stock. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized or maintained within the property.
- 2) All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting shall be primarily of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire

safety requirements. All native plant species shall be of local genetic stock. Within 30 days of the removal of the temporary trailers, these areas shall also be landscaped according to this plan. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;

- 3) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- 4) Vegetation on the subject parcel within 20 feet of the proposed residence may be removed to mineral earth, vegetation on the subject parcel within a 200-foot radius of the main structure may be selectively thinned in order to reduce fire hazard. All vegetation removal and thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The fuel modification plan shall include details regarding the types, sizes and location of plant materials to be removed, and how often thinning is to occur. In addition, the applicant shall submit evidence that the fuel modification plan for the subject parcel has been reviewed and approved by the Forestry Department of Los Angeles County. Irrigated lawn, turf and ground cover planted within the thirty foot radius of the proposed house shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.
- 5) Rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
- 6) Fencing of the entire property is prohibited. Fencing shall extend no further than Zone A of the final fuel modification plan approved by the Los Angeles County Fire Department pursuant to subsection (5) above. The fencing type and location shall be illustrated on the landscape plan and may include a vehicular and pedestrian gates at the driveway along Hovenweep Lane. Fencing shall also be subject to the color requirements outlined in Special Condition Five (5) below.

The Permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission - approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

#### **B) Interim Erosion Control Plan**

- 1) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags.

- 2) The plan shall specify that grading shall take place only during the dry season (April 1 – October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive Director. The applicant shall install or construct temporary sediment basins (including debris basins, desilting basins, or silt traps), temporary drains and swales, sand bag barriers, silt fencing, and shall stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and stabilize open trenches as soon as possible. These erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site, unless removed to an appropriate, approved dumping location either outside of the coastal zone or within the coastal zone to a site permitted to receive fill.
- 3) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

**C) Monitoring.**

- (1) Five years from the date of the receipt of the Certificate of Occupancy for the residence the applicant shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies whether the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.
- (2) If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

**4. Assumption of Risk, Waiver of Liability and Indemnity**



By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from wildfire, landslides, and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards

## **5. Structural Appearance**

**Prior to the issuance of the coastal development permit**, the applicant shall submit for the review and approval of the Executive Director, a color palette and material specifications for the outer surface of all structures authorized by the approval of Coastal Development Permit No. 4-07-014. The palette samples shall be presented in a format not to exceed 8½" x 11" x ½" in size. The palette shall include the colors proposed for the roofs, trims, exterior surfaces, driveways/access roads, retaining walls, and other structures authorized by this permit. Acceptable colors shall be limited to colors compatible with the surrounding environment (earth tones) including shades of green, brown and gray with no white or light shades and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored and constructed with only the colors and window materials authorized pursuant to this special condition. Alternative colors or materials for future repainting or resurfacing or new windows may only be applied to the structures authorized by Coastal Development Permit No. 4-07-014 if such changes are specifically authorized by the Executive Director as complying with this special condition.

## **6. Lighting Restriction**

- A. The only outdoor night lighting allowed on the subject parcel is limited to the following:
  - 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 above finished grade, are directed downward and generate the same or less lumens equivalent to those generated by a 60 watt incandescent bulb, unless a greater number of lumens is authorized by the Executive Director.

2. Security lighting attached to the residence and garage shall be controlled by motion detectors and is limited to same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
  3. The minimum necessary to light the entry area to the driveway with the same or less lumens equivalent to those generated by a 60 watt incandescent bulb.
- B. No lighting around the perimeter of the site and no lighting for aesthetic purposes is allowed.

## **7. Removal of Native Vegetation**

Removal of natural vegetation for the purpose of fuel modification within the 20-foot zone surrounding the proposed structure shall not commence until the local government has issued a building or grading permit for the development approved pursuant to this permit. Vegetation thinning within the 20-200 foot fuel modification zone shall not occur until commencement of construction of the structure approved pursuant to this permit.

## **8. Habitat Impact Mitigation**

***Prior to the issuance of the coastal development permit,*** the applicant shall submit, for the review and approval of the Executive Director, a map delineating all areas of chaparral or oak woodland habitat (ESHA) that will be disturbed by the proposed development, including fuel modification and brush clearance requirements on the project site and adjacent property. The chaparral ESHA areas on the site and adjacent property shall be delineated on a detailed map, to scale, illustrating the subject parcel boundaries and, if the fuel modification/brush clearance zones extend onto adjacent property, adjacent parcel boundaries. The delineation map shall indicate the total acreage for all chaparral ESHA, both on and offsite that will be impacted by the proposed development, including the fuel modification/brush clearance areas. A 200-foot clearance zone from the proposed structures, except that no vegetation thinning is allowed on the adjoining National Park Service property located to the west, shall be used to determine the extent of off-site brush clearance for fire protection purposes. The delineation shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains.

Mitigation shall be provided for impacts to the chaparral and/or oak woodland ESHA from the proposed development and fuel modification/brush clearance requirements by one of the three following habitat mitigation methods:

### **A. Habitat Restoration**

- 1) Habitat Restoration Plan

**Prior to the issuance of the coastal development permit**, the applicant shall submit a habitat restoration plan, for the review and approval of the Executive Director, for an area of degraded chaparral habitat equivalent to the area of chaparral ESHA impacted by the proposed development and fuel modification/brush clearance area. The habitat restoration area may either be onsite or offsite within the coastal zone either in the City of Malibu or elsewhere in the Santa Monica Mountains. The habitat restoration area shall be delineated on a detailed site plan, to scale, that illustrates the parcel boundaries and topographic contours of the site. The habitat restoration plan shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the Santa Monica Mountains and shall be designed to restore the area in question for habitat function, species diversity and vegetation cover. The restoration plan shall include a statement of goals and performance standards, revegetation and restoration methodology, and maintenance and monitoring provisions. If the restoration site is offsite, the applicant shall submit written evidence to the Executive Director that the property owner has irrevocably agreed to allow the restoration work, maintenance and monitoring required by this condition and not to disturb any native vegetation in the restoration area.

The applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating compliance with the performance standards outlined in the restoration plan and describing the revegetation, maintenance and monitoring that was conducted during the prior year. The annual report shall include recommendations for mid-course corrective measures. At the end of the five-year period, a final detailed report shall be submitted for the review and approval of the Executive Director. If this report indicates that the restoration project has been, in part or in whole, unsuccessful, based on the approved goals and performance standards, the applicant shall submit a revised or supplemental restoration plan with maintenance and monitoring provisions, for the review and approval of the Executive Director, to compensate for those portions of the original restoration plan that were not successful. Should supplemental restoration be required, the applicant shall submit, on an annual basis for five years, a written report, for the review and approval of the Executive Director, prepared by a qualified resource specialist, evaluating the supplemental restoration areas. At the end of the five-year period, a final report shall be submitted evaluating whether the supplemental restoration plan has achieved compliance with the goals and performance standards for the restoration area. If the goals and performance standards are not met within 10 years, the applicant shall submit an application for an amendment to the coastal development permit for an alternative mitigation program and shall implement whatever alternative mitigation program the Commission approves, as approved.

The habitat restoration work approved in the restoration plan shall be carried out prior to occupancy of the residence.

## 2) Open Space Deed Restriction

No development, as defined in section 30106 of the Coastal Act, shall occur in the habitat restoration area, as shown on the habitat restoration site plan required pursuant to (A)(1) above.

Prior to the issuance of the coastal development permit, the applicant shall submit evidence that the applicant has executed and recorded a deed restriction (if the applicant is not the owner, then the applicant shall submit evidence that the owner has executed and recorded the deed restriction), in a form and content acceptable to the Executive Director, reflecting the above restriction on development and designating the habitat restoration area as open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of both the parcel on which the restoration area lies and the open space area/habitat restoration area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

## 3) Performance Bond

Prior to the issuance of the permit, the applicant shall post performance bonds to guarantee implementation of the restoration plan as follows: a) one equal to the value of the labor and materials; and b) one equal to the value of the maintenance and monitoring for a period of 5 years. Each performance bond shall be released upon satisfactory completion of items (a) and (b) above. If the applicant fails to either restore or maintain and monitor according to the approved plans, the Coastal Commission may collect the security and complete the work on the property.

## B. Habitat Conservation

**Prior to the issuance of the coastal development permit**, the applicant shall (or, if the applicant is not the owner of the habitat conservation site, then the owner of the habitat conservation site shall) execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over the entirety of a legal parcel or parcels containing chaparral ESHA. The chaparral ESHA located on the mitigation parcel or parcels must be of equal or greater area than the ESHA area impacted by the proposed development, including the fuel modification/brush clearance areas. No development, as defined in section 30106 of the Coastal Act, shall occur on the mitigation parcel(s) and the parcel(s) shall be preserved as permanent open space. The deed restriction shall include a graphic depiction and narrative legal descriptions of the parcel or parcels. The deed restriction shall run with the land, binding all successors and assigns, and

shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction.

Prior to occupancy of the residence, the applicant shall submit evidence, for the review and approval of the Executive Director, that the recorded documents have been reflected in the Los Angeles County Tax Assessor Records.

If the mitigation parcel(s) is/are larger in size than the impacted habitat area, the excess acreage may be used to provide habitat impact mitigation for other development projects that impact like ESHA.

### **C. Habitat Impact Mitigation Fund**

**Prior to the issuance of the coastal development permit**, the applicant shall submit evidence, for the review and approval of the Executive Director, that compensatory mitigation, in the form of an in-lieu fee, has been paid to the Mountains Recreation and Conservation Authority to mitigate adverse impacts to chaparral and/or oak woodland habitat ESHA. The fee shall be calculated as follows:

#### **1. Development Area, Irrigated Fuel Modification Zones, Off-site Brush Clearance**

The in-lieu fee for these areas shall be \$12,000 per acre within the development area and any required irrigated fuel modification zones. The total acreage shall be based on the map delineating these areas required by this condition.

#### **2. Non-irrigated Fuel Modification Zones**

The in-lieu fee for non-irrigated fuel modification areas shall be \$3,000 per acre. The total acreage shall be based on the map delineating these areas required by this condition.

Prior to the payment of any in-lieu fee to the Mountains Recreation and Conservation Authority, the applicant shall submit, for the review and approval of the Executive Director, the calculation of the in-lieu fee required to mitigate adverse impacts to chaparral habitat ESHA, in accordance with this condition. After review and approval of the fee calculation, the fee shall be paid to the Mountains Recreation and Conservation Authority's Coastal Habitat Impact Mitigation Fund for the acquisition, or permanent preservation of chaparral and/or oak woodland habitat in the Santa Monica Mountains coastal zone.

## 9. Future Development Restriction

This permit is only for the development described in Coastal Development Permit No. 4-07-014. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6) the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply to any future development on any portion of the parcel. Accordingly, any future improvements to any portion of the property, including but not limited to the residence, garage, water tank, septic system, landscaping, and removal of vegetation or grading other than as provided for in the approved fuel modification/landscape plan prepared pursuant to Special Condition Three (3), shall require an amendment to Coastal Development Permit No. 4-07-014 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

## 10. Deed Restriction

***Prior to issuance of the coastal development permit,*** the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

## 11. Revised Plans

***A. Prior to the issuance of the Coastal Development Permit,*** the applicant shall submit, for the review and approval of the Executive Director, two sets of revised site plans and elevations stamped by a licensed architect, as well as revised grading plans stamped by a registered engineer, that incorporate the following changes:

- 1) The proposed residence and garage shall not exceed 28 feet in height from existing grade at any given location.
- 2) The proposed structure shall be constructed with fire resistant materials including a Class A roof, sealed or boxed eaves, dual paned glass, stucco, steel and or concrete exterior materials, or other similar fire resistant materials, to the extent feasible. No exterior wood materials are allowed.

**B. Prior to issuance of the Coastal Development Permit**, the applicant shall submit, for the review and approval of the Executive Director, the following approvals for the revised building plans:

- a) Los Angeles County Planning Department “Approval in Concept”; and
- b) Los Angeles County Fire Department approval of Final Fuel Modifications Plans.

C. The Permittee shall undertake development in accordance with the final approved site plan(s) and elevations, grading plan(s), and fuel modification plan(s). Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

## **12. Removal of Temporary Construction Trailers**

With the acceptance of this coastal permit, the applicants agree that the temporary construction trailers/storage containers on the site shall be removed within two years of the issuance of this coastal development permit or within thirty (30) days of the applicant’s receipt of the Certificate of Occupancy for the proposed residence from the County of Los Angeles, whichever is less, to a site located outside the Coastal Zone or a site with a valid coastal development permit for the installation of these trailers/storage containers. Additional time may be granted by the Executive Director for good cause.

## **IV. Findings and Declarations**

The Commission hereby finds and declares:

### **A. Project Description and Background**

The applicants propose to construct a 4,771 sq ft., three-story single family residence with an attached five car tandem 1,917 sq. ft. basement garage, solar photovoltaic system, 700 ft. long partially paved driveway, septic system, 5,000 gallon water tank partially buried, temporary 44 ft. by 14 ft. residential trailer and two 40 ft. by 8 ft. storage containers to be removed prior to occupancy of the residence, thermal exchange system within graded area, terraced gardens and landscaping, 6 ft. high fire wall and fence, remove existing fence enclosure (former dog run), and 2,320 cu. yds. of grading (1,160 cu. yds. of cut and 1,160 cu. yds. of fill). The grading for the residence and its access driveway is 693 cu. yds. of cut and 1,102 cu. yds. of fill while the grading for Hovenweep Lane is 645 cu. yds of cut and 58 cu. yds. of fill. The proposed residence will be cut into the slope up to about 12 feet at the north side of the building pad at the 2,293 foot elevation level (Exhibits 1-13, 15-24).

The first residential floor above the basement level garage is 2,154 sq. ft. at the 2,305 foot elevation. The second floor is 1,596 sq. ft. at the 2,316.5 foot elevation and the third floor loft is 1,021 sq. ft. at the 2,326 foot elevation. The roof peaks at the 2,340 foot elevation and will be 35 feet high above the finished grade. Cut material is proposed to be used as fill for the driveway and turnaround area, a garden area surrounding the driveway and along the western and eastern sides of the residence for fire department required walkways. The size of the proposed development area, including the cut/fill slopes for the building pad (excluding the driveway and fire department turnaround area) is approximately 6,900 sq. ft. in total area.

The development also includes improvements to the 677 ft. long portion of the existing, partially paved Hovenweep Lane access driveway. Road improvements will include placement of gravel material over 208 linear feet of road and the paving of about 469 linear feet of road. In addition, the project also includes installation of a septic system, a partially buried water tank, a temporary residential trailer and two storage containers, terraced gardens and landscaping, a 6 ft. high fire wall along the western property boundary and fence, the removal of a fenced area, and 2,320 cu. yds. of grading (1,160 cu. yds. of cut and 1,160 cu. yds. of fill). Staff notes that the existing Hovenweep Lane appears in aerial photos of the site from 1977 which indicates that its creation from Schueren Road to the east side of the subject lot pre-dates the effective date of the Coastal Act.

The project site is located on a 0.85 acre lot on a site with a 4:1 south facing slope south of, and below, Schueren Road near its intersection with Saddle Peak and Stunt Roads within the upper reaches of the Las Flores Canyon Watershed of the Santa Monica Mountains in Los Angeles County. The site is accessed from Hovenweep Lane, which extends to the subject site from Schueren Road to the south. The project site is located within a large bend along Schueren Road, thus Schueren Road is located both immediately north and south of the subject site (Exhibits 1 and 2). The lot is located immediately east of a neighboring undeveloped 16 acre parcel of land owned by the Santa Monica Mountains National Recreation Area lands to the west. The subject lot descends to the south from Saddle Peak Road at the top of the slope along the northern property boundary to a relatively flat area adjacent to Hovenweep Lane on the southern property boundary. The subject parcel is relatively narrow averaging about 100 feet in width. The majority of the lot is undeveloped and vegetated with dense chaparral which is considered environmentally sensitive habitat area (ESHA), except for the existing building pad and disturbed area adjacent to Hovenweep Lane. Staff has reviewed historic aerial photographs of the site and confirmed that the existing disturbed areas were graded prior to the effective date of the Coastal Act in 1977. There are no oak trees on the property. An approximate 17-foot wide section of the existing unimproved Hovenweep Lane extends across the property from the southwest to southeast corners of the lot and from there to the east of the subject lot. These disturbed areas on the lot and this portion of Hovenweep Lane pre-date the effective date of the Coastal Act in 1977 and are not considered ESHA.

The subject lot is surrounded to the west, north, and east by undeveloped, vacant lots of various sizes predominantly covered in chaparral habitats. Although no immediately



adjacent lots have been developed with residential development, to the south and southeast of the site are lots developed with single family residences adjacent to Schueren Road.

## **1. Background**

In 1986, the Commission approved a 1,910 sq. ft. single family residence with a 500 sq. ft. carport, septic tank and driveway on the subject site (Coastal Permit No. 5-86-456, Bauer). However, the applicant never satisfied the conditions of approval which were required to be met prior to issuance and, subsequently, the coastal permit was never issued and expired in 1988. The applicant has informed staff that a prior owner used the property since 1966 for occasional residential use with a temporary recreational vehicle and a fenced area on the southern portion of the property as a dog run/pen. Currently, there are no existing trailers or residential structures on the site and the applicant proposes to remove the existing dog run/pen fence as part of this application.

## **B. Geologic and Wildfire Hazard**

The proposed development is located in the Santa Monica Mountains, an area that is generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Santa Monica Mountains area include landslides, erosion, and flooding. In addition, fire 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.

Section **30253** of the Coastal Act states in pertinent part 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, 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.***

## **Geology**

Section 30253 of the Coastal Act mandates that new development be sited and designed to provide geologic stability and structural integrity, and minimize risks to life and property in areas of high geologic, flood, and fire hazard. The applicant has submitted the following reports for the proposed development: "Preliminary Engineering Geologic and Geotechnical Engineering Report for Proposed Single Family Dwelling at 24071 Hovenweep Lane, Malibu, California," prepared by Donald Kowalewsky, Environmental & Engineering Geology, on February 10, 2006; This report addresses the

geologic conditions on the site, including drainage, subsurface conditions, landslides, faulting, and seismicity.

The subject property is located on a south facing slope of the Santa Monica Mountains about ¼ mile west of an upper tributary of Las Flores Canyon within the Las Flores Canyon watershed. The overall trapezoidal shape of the subject lot trends northwest to southeast. Elevations of the property vary from 2,366 feet above sea level on the northwestern corner to about 2,260 feet at the southwestern corner. The steepest portions of the site's topography are located in the northern portion of the property adjacent to Saddle Peak Road. The winter storms of 2005 created a small mudslide from Saddle Peak Road affecting the northwest corner of the property.

The earthen materials observed on the property consist of fill, topsoil, alluvial fan deposits and Sespe Formation bedrock. The alluvial fan deposits exceed 8 feet in depth. According to the geologic consultant, no landslides, or adverse geologic structures are present onsite in the vicinity of the project site, with one exception. This exception includes the steep portion of the lot adjacent to Saddle Peak Road located about 200 feet from the proposed building site. However since the northern most portion of the lot had slid in the winter of 2005 reducing the width of the roadway along Saddle Peak Road, there remains a future risk of landslides on the subject lot. The Commission has approved a slide repair project at the October 2007 meeting allowing the County of Los Angeles Public Works Department to repair Saddle Peak and this slide on the subject lot. Further, the geologic consultants have found the geology of the proposed project site to be suitable for the construction of a single-family residence and septic system.

The geologic and geotechnical reports for the residence and septic system include several recommendations to be incorporated into project construction, grading, foundations, slabs, retaining walls, and drainage to ensure the stability and geologic safety for the proposed project site and adjacent properties. To ensure that the recommendations of the consultant have been incorporated into all proposed development, the Commission, as specified in **Special Condition One (1)**, requires the applicant to comply with and incorporate the recommendations contained in the submitted geologic report into all final design and construction, and to obtain the approval of the geotechnical consultant prior to commencement of construction.

The Commission finds that controlling and diverting run-off in a non-erosive manner from the proposed structures, impervious surfaces, and building pad will also add to the geologic stability of the project site. Therefore, in order to minimize erosion and ensure stability of the project site, and to ensure that adequate drainage and erosion control is included in the proposed development, the Commission requires the applicants to submit drainage and erosion control plans certified by the geotechnical engineer, as specified in **Special Conditions Two (2) and Three (3)**.

Further, the Commission finds that landscaping of graded and disturbed areas on the subject site will serve to stabilize disturbed soils, reduce erosion and thus enhance and

maintain the geologic stability of the site. Therefore, **Special Condition Three (3)** requires the applicant to submit landscaping plans certified by the consulting geotechnical engineer as in conformance with their recommendations for landscaping of the project site. **Special Condition Three (3)** also requires the applicant to utilize and maintain native and noninvasive plant species compatible with the surrounding area for landscaping the project site.

Invasive and non-native plant species are generally characterized as having a shallow root structure in comparison with their high surface/foliage weight. The Commission notes that non-native and invasive plant species with high surface/foliage weight and shallow root structures do not serve to stabilize slopes and that such vegetation results in potential adverse effects to the stability of the project site. Native species, alternatively, tend to have a deeper root structure than non-native and invasive species, and once established aid in preventing erosion. Therefore, the Commission finds that in order to ensure site stability, all slopes and disturbed and graded areas of the site shall be landscaped with appropriate native plant species, as specified in **Special Condition Three (3)**.

Furthermore, in order to ensure that vegetation clearance for fire protection purposes does not occur prior to commencement of grading or construction of the proposed structures, the Commission finds that it is necessary to impose a restriction on the removal of natural vegetation as specified in **Special Condition Seven (7)**. This restriction specifies that natural vegetation shall not be removed until grading or building permits have been secured and construction of the permitted structures has commenced. The limitation imposed by **Special Condition Seven (7)** avoids loss of natural vegetative coverage resulting in unnecessary erosion in the absence of adequately constructed drainage and run-off control devices and implementation of the landscape and interim erosion control plans.

**Special Condition Ten (10)** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as a restriction on the use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restriction are imposed on the subject property.

The Commission finds that the proposed project, as conditioned, will minimize potential geologic hazards on the project site and adjacent properties, as required by §30253 of the Coastal Act.

## **Wildfire**

The proposed project is located in the Santa Monica Mountains, an area subject to an extraordinary potential for damage or destruction from wild fire. Typical vegetation in the Santa Monica Mountains consists mostly of 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.

In addition, the subject property is located east and immediately adjacent to property owned by the Santa Monica Mountains National Recreation Area (SMMNRA)/National Park Service (NPS). The normally 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. However, in this case, although the typical fuel modification zone on this parcel would extend from the approved structure up to 200 feet into chaparral ESHA on the adjoining parcel to the west owned by the SMMNRA/NPS, the SMMNRA/NPS has informed staff that National Park Service policies do not allow for removal of native vegetation and wildlife habitat for the purpose of accommodating adjacent private property development. Thus, since vegetation removal or fuel modification for the proposed residence can not occur on the adjacent park land, the applicant is proposing a 6 foot tall, 275 ft. long concrete fire wall along a portion of the western property line in order to provide additional fire protection..

**Special Conditions Three (3) and Eleven (11)** require the applicant to submit a final fuel modification plan approved by the Los Angeles County Fire Department. In addition, **Special Condition Eleven (11)** requires the applicant to submit, for the review and approval of the Executive Director, revised site plans and elevations stamped by a licensed architect, as well as revised grading plans stamped by a registered engineer, that incorporate that the proposed structure shall be constructed with fire resistant materials including a Class A roof, sealed or boxed eaves, dual paned glass, stucco, steel and or concrete exterior materials and no exterior wood materials. The proposed project, as conditioned, will be as fire resistant as feasible to minimize the potential for a wildfire damaging the structure and increasing the fuel modification required in the future.

However, although the applicant is proposing to construct a fire wall and Special Condition Eleven (11) has been required to ensure the residence will be constructed using fire resistant materials, the Commission finds that potential hazards from wildfire can not be eliminated on the subject site. Thus, due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from wild fire, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through **Special Condition No. Four (4)**, assumption of risk, the applicants acknowledge the nature of the fire hazard which exists on the site and which may affect the safety of the proposed development. Moreover, through acceptance of Special Condition Four (4), the applicants also agree to indemnify the Commission, its officers, agents and employees against any and all expenses or liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted project.

For the reasons set forth above, the Commission finds that, as conditioned, the proposed project is consistent with §30253 of the Coastal Act.

### **C. Environmentally Sensitive Habitat Areas**

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** states:

***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 **30240** states:

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such 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 such areas, and shall be compatible with the continuance of such habitat areas.***

Section **30107.5** of the Coastal Act, defines an environmentally sensitive area as:

***"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.***

In addition, the Malibu/Santa Monica Mountains LUP provides policy guidance regarding the protection of environmentally sensitive habitats. The Coastal Commission, as guidance in the review of development proposals in the Santa Monica Mountains, has applied these policies.

***P63 Uses shall be permitted in ESHAs, DSRs, Significant Watersheds, and Significant Oak Woodlands, and Wildlife Corridors in accordance with Table I and all other policies of this LCP.***

***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. Residential use shall not be considered a resource dependent use.***

***P69 Development in areas adjacent to environmentally sensitive habitat areas (ESHAs) shall be subject to the review of the Environmental Review Board, shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.***

***P72 Open space or conservation easements or equivalent measures may be required in order to protect undisturbed watershed cover and riparian areas located on parcels proposed for development. Where new development is proposed adjacent to Environmentally Sensitive Habitat Areas, open space or conservation easements shall be required in order to protect resources within the ESHA.***

***P73 The use of insecticides, herbicides, or any toxic chemical substance (with the exception of non-regulated home pesticides considered necessary for maintenance of households) shall be prohibited in designated environmentally sensitive habitats, except in an emergency which threatens the habitat itself.***

***P74 New development shall be located as close as feasible to existing roadways, services, and existing development to minimize the effects on sensitive environmental resources.***

***P81 To control runoff into coastal waters, wetlands and riparian areas, as required by Section 30231 of the Coastal Act, the maximum rate of storm water runoff into such areas from new development should not exceed the peak level that existed prior to development.***

***P82 Grading shall be minimized for all new development to ensure the potential negative effects of runoff and erosion on these resources are minimized.***

***P84 In disturbed areas, landscape plans shall balance long-term stability and minimization of fuel load. For instance, a combination of taller, deep-rooted plants and low-growing ground covers to reduce heat output may be used. Within ESHAs and Significant Watersheds, native plant species shall be used, consistent with fire safety requirements.***

Section 30231 of the Coastal Act requires that the biological productivity and the quality of coastal waters and streams be maintained and, where feasible, restored through, among other means, controlling runoff, preventing depletion of ground water supplies

and substantial interference with surface water flows, maintaining natural buffer areas that protect riparian habitats, and minimizing alteration of natural streams. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas must be protected against disruption of habitat values. Pursuant to Section 30107.5, in order to determine whether an area constitutes an ESHA, and is therefore subject to the protections of Section 30240, the Commission must ask four questions:

- 1) Is there a rare habitat or species in the subject area?
- 2) Is there an especially valuable habitat or species in the area, based on:
  - a) Does any habitat or species present have a special nature?
  - b) Does any habitat or species present have a special role in the ecosystem?
- 3) Is any habitat or species that has met test 1 or 2 (i.e., that is rare or especially valuable) easily disturbed or degraded by human activities and developments?

The first test of ESHA is whether a habitat or species is rare. The Coastal Commission has found that the Mediterranean Ecosystem in the Santa Mountains is itself rare, and valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. Therefore, habitat areas that provide important roles in that ecosystem are especially valuable and meet the first criterion for the ESHA designation. In the Santa Monica Mountains, coastal sage scrub and chaparral have many important roles in the ecosystem, including the provision of critical linkages between riparian corridors, the provision of essential habitat for species that require several habitat types during the course of their life histories, the provision of essential habitat for local endemics, the support of rare species, and the reduction of erosion, thereby protecting the water quality of coastal streams. For these and other reasons discussed in **Exhibit 14**, which is incorporated herein, the Commission finds that large contiguous, relatively pristine stands of coastal sage scrub and chaparral in the Santa Monica Mountains meet the definition of ESHA. This is consistent with the Commission's past findings on the Malibu LCP<sup>1</sup>.

The 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, many areas within the Santa Monica Mountains 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." This test is met for

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<sup>1</sup> Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

relatively pristine 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.

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

The project site is located on a 0.85 acre lot on a site with a 4:1 south facing slope south of, and below, Schueren Road near its intersection with Saddle Peak and Stunt Roads within the upper reaches of the Las Flores Canyon Watershed of the Santa Monica Mountains in Los Angeles County (Exhibits 1-16). The site is accessed from Hovenweep Lane which extends from Schueren Road to the south to the subject property. The lot adjoins Santa Monica Mountains National Recreation Area (SMMNRA)/National Park Service (NPS) land to the west. Slopes on the subject lot descend from Saddle Peak Road along the northern property boundary to a relatively flat area along Hovenweep Lane on the southern property boundary. The subject lot is relatively narrow averaging about 100 feet in width. The majority of the lot is undeveloped and vegetated with dense chaparral which extends offsite into a large contiguous chaparral habitat area and is considered environmentally sensitive habitat area (ESHA). The existing building pad and disturbed area adjacent to Hovenweep Lane have been previously graded and are dominated by non-native grassland. Staff has confirmed, based on review of historic aerial photographs, that these two existing disturbed areas on site and Hovenweep Lane were graded prior to the effective date of the Coastal Act in 1977. Thus, the existing building pad, the disturbed area adjacent to Hovenweep Lane, and Hovenweep Lane itself do not constitute ESHA. There are no oak trees on the property. An approximate 17-foot wide section of the unimproved Hovenweep Lane extends across the property from the southwest to southeast corners of the lot and from there to the east of the subject lot.

The subject lot is surrounded to the west, north, and by lots of various sizes predominantly covered in chaparral habitats. To the south and southeast are lots developed with single family residences adjacent to Schueren Road. The areas to the west, north and east of the lot are characterized by undeveloped natural terrain vegetated in chaparral habitat. As such, there is a large contiguous block of relatively undisturbed native vegetation consisting of chaparral habitat that encompasses the project site and surrounding area.

The applicant proposes to construct a 4,771 sq. ft., three story single family residence with a five car tandem 1,917 sq. ft. basement garage, solar photovoltaic system, 700 ft. long partially paved driveway, septic system, water tank, temporary residential trailer and two storage containers, terraced gardens and landscaping, 6 ft. high fire wall and fence, remove fence, and 2,320 cu. yds. of grading (1,160 cu. yds. of cut and 1,160 cu. yds. of fill). The development also includes improvements to a 677 ft. long segment of the existing partially paved Hovenweep Lane access road which will include placement



of gravel road material over 208 linear feet and the paving of about 469 linear feet of the roadway. In addition, the road will be expanded to a uniform width of 20 feet.

According to the biologic report submitted by the applicant titled: "Biological Assessment Study, Project APN 4453-024-003, Malibu," prepared by David Carroll and Associates, May 24, 2005, the subject lot is undeveloped with 30 – 35% of the site consisting of ceanothus chaparral habitat and 60 – 65% consisting of non-native grasses. The site has burned twice during the past 35 years, once during the Wright Fire in 1970 and again by the Old Topanga Fire in 1993 (Exhibit 16). A review of the Commission's historic aerial photographs indicates that over half of the site was cleared with a dirt access road (Hovenweep Lane) prior to 1977.

Due to the important ecosystem role of chaparral habitat in the Santa Monica Mountains (detailed in **Exhibit 14**), the Commission finds that the chaparral habitat on and surrounding the subject site meets the definition of ESHA under Section 30107.5 of the Coastal Act. The existing 60 – 65% of the lot and the 17-foot wide strip of the dirt road (Hovenweep Lane) leading to and adjacent to the south side of the lot were disturbed prior to the effective date of the Coastal Act, however, do not meet the definition of ESHA.

As explained above, the project site and the surrounding area constitute an environmentally sensitive habitat area (ESHA) pursuant to Section 30107.5. Section 30240 of the Coastal Act requires that "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." Section 30240 restricts development on the parcel to only those uses that are dependent on the resource. The applicant proposes to construct a single-family residence on the lot, which would result in the loss of ESHA habitat area and vegetation within the building pad area, as well as within those areas where fuel modification would be required for fire protection purposes. The applicant has also proposed a septic system immediately south of the building.

The subject lot adjoins a parcel owned by the Santa Monica Mountains National Recreation Area (SMMNRA)/National Park Service (NPS) which is located to the west. The normally 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. However, in this case, although the typical fuel modification zone on this parcel would extend from the approved structure up to 200 feet into chaparral ESHA on the adjoining parcel to the west owned by the SMMNRA/NPS, the SMMNRA/NPS has informed staff that National Park Service policies do not allow for removal of native vegetation and wildlife habitat for the purpose of accommodating adjacent private property development. Since no clearing for fuel modification purposes is allowed on SMMNRA/NPS property, the applicants are proposing a 6 foot high "fire wall" along 275 ft. of their western property boundary to reduce the fire hazard on site.

As a result, according to the applicant, no fuel modification is required by the Los Angeles County on NPS property.

As single-family residences do not have to be located within ESHAs to function, the Commission does not consider these uses to be dependent on ESHA resources. Application of Section 30240, by itself, would require denial of the project, because the project would result in significant disruption of habitat values and is not a use dependent on those sensitive habitat resources.

However, the Commission must also consider Section 30010, and the Supreme Court decision in *Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1003, 112 S.Ct. 2886. Section 30010 of the Coastal Act provides that the Coastal Act shall not be construed as authorizing the Commission to exercise its power to grant or deny a permit in a manner which will take private property for public use. Application of Section 30010 may overcome the presumption of denial in some instances. The subject of what government action results in a “taking” was addressed by the U.S. Supreme Court in *Lucas v. South Carolina Coastal Council*. In *Lucas*, the Court identified several factors that should be considered in determining whether a proposed government action would result in a taking. For instance, the Court held that where a permit applicant has demonstrated that he or she has a sufficient real property interest in the property to allow the proposed project, and that project denial would deprive his or her property of all economically viable use, then denial of the project by a regulatory agency might result in a taking of the property for public use unless the proposed project would constitute a nuisance under State law. Other Supreme Court precedent establishes that another factor that should be considered is the extent to which a project denial would interfere with reasonable investment-backed expectations.

The Commission interprets Section 30010, together with the *Lucas* decision, to mean that if Commission denial of the project would deprive an applicant’s property of all reasonable economic use, the Commission may be required to allow some development even where a Coastal Act policy would otherwise prohibit it, unless the proposed project would constitute a nuisance under state law. In other words, Section 30240 of the Coastal Act cannot be read to deny all economically beneficial or productive use of land because Section 30240 cannot be interpreted to require the Commission to act in an unconstitutional manner.

In the subject case, the applicant purchased the property in 2004 for approximately \$300,000. The parcel was designated in the County’s certified Land Use Plan in 1986 for residential use (Rural Land III). At the time the applicant purchased the lot, the County’s certified Land Use Plan (LUP) designated the for residential development on the lot up to one unit per parcel/lot of 2 acres in size as long as all structures are clustered and grading and vegetation removal are minimized. Based on this fact, along with the presence of existing and approved residential development on nearby parcels, the applicant had reason to believe that they had purchased a lot on which they would be able to build a residence.

The Commission finds that in this particular case, other allowable uses for the subject site, such as a recreational park or a nature preserve, are not currently feasible and would not provide the owner an economic return on the investment. The lot is 0.85 acres and there are other, residential developments to the south, and southeast of the site. Public parkland and open space have been acquired on adjacent land to the west and to the north and northeast in the vicinity, but there is no current offer to purchase the property from any public park agency. The Commission thus concludes that in this particular case there is no viable alternative use for the site other than residential development. The Commission finds, therefore, that outright denial of all residential use would interfere with reasonable investment-backed expectations and deprive the property of all reasonable economic use.

Next the Commission turns to the question of nuisance. There is no evidence that construction of a residence would create a nuisance under California law. Other houses have been constructed in similar situations in chaparral habitat in Los Angeles County, apparently without the creation of nuisances. The County's Health Department has not reported evidence of septic system failures. In addition, the County has reviewed and approved a septic system onsite, ensuring that a system is possible onsite that will not create public health problems. Furthermore, the use that is proposed is residential, rather than, for example, industrial, which might create noise or odors or otherwise create a public nuisance. In conclusion, the Commission finds that a residential project can be allowed to permit the applicant a reasonable economic use of their property consistent with Section 30010 of the Coastal Act.

While the applicant is entitled under Section 30010 to an assurance that the Commission will not act in such a way as to take their property, this section does not authorize the Commission to avoid application of the policies of the Coastal Act, including Section 30240, altogether. Instead, the Commission is only directed to avoid construing these policies in a way that would take property. Aside from this instruction, the Commission is still otherwise directed to enforce the requirements of the Act. Therefore, in this situation, the Commission must still comply with Section 30240 by avoiding impacts that would disrupt and/or degrade environmentally sensitive habitat, to the extent this can be done without a taking of the property.

As discussed above, residential development will be approved within ESHA on the project site in order to provide an economically viable use. Alternatives and mitigation measures have been considered in order to identify the overall project that can protect ESHA against any significant disruption of habitat values, to the maximum extent feasible.

In this case, although the subject property site (with the exception of the existing building pad, disturbed area adjacent to Hovenweep Lane, and Hovenweep Lane itself) constitute ESHA, the construction of a single family residence on the southern portion of the lot will result in the loss of ESHA within the areas required for fuel modification. Additionally, removal of habitat area for such residential development and the presence of human activity on the site will result in impacts to the ESHA that will remain on the

site through habitat fragmentation and disturbance through noise, lighting, and other impacts. The only alternative that could avoid these impacts would be the “no project” alternative. However, as discussed above, the “no project” alternative is not considered feasible as it would not afford the applicant a reasonable economic use of the property. Other alternatives considered include siting the proposed development in different areas of the property, different sizes and designs of the proposed structures.

The applicants proposed development area is approximately 6,900 sq. ft., excluding the required fire department turnaround area and the driveway leading to it. The structure is proposed to be cut fully into the slope with a subterranean garage level. This is substantially smaller than the maximum development area of 10,000 sq. ft. typically required by the Commission in past permit actions on lots containing ESHA.

The residence, as now proposed, however, would still require removal and thinning of native chaparral considered ESHA for fuel modification purposes. Given these impacts, Commission staff explored an alternative location for the residence. One alternative included relocating the residence approximately 40 ft. to the south of the proposed building site, within the area currently proposed disturbed area for the septic system’s leach fields. However, relocating the building site south where the proposed leach fields are located would require relocating the leach field to the south west within an area of isolated relatively undisturbed chaparral habitat, thereby increasing the potential direct impacts to chaparral vegetation on site. In addition, because the subject parcel is surrounded on all sides by ESHA, relocation of the residence 40 ft. further south would not result in any reduction to impacts to ESHA resulting from fuel modification requirements. Further, no other sites for the house or septic system are available on the property that would reduce impacts to native chaparral ESHA onsite, due to the small size of the lot and the steep topography north of the proposed building site.

However, given the location of the chaparral ESHA on the site, there will still be significant impacts to ESHA resulting from the proposed residence’s fuel modification around the residence. The following discussion of ESHA impacts from new development and fuel modification is based on the findings of the Malibu LCP<sup>2</sup>.

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

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<sup>2</sup> Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

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 some cases, as with the proposed development, this zone can be reduced to 30 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. 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. Additionally, 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 and chaparral 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 and chaparral 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 down-gradient 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. 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)<sup>3</sup>. 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<sup>4</sup>.

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<sup>5</sup>. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat<sup>6</sup>. These native ants are the primary food resource for

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<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> 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.

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<sup>7</sup>. 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 long-evolved native ant-plant mutualisms<sup>8</sup>. 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<sup>9</sup>.

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.<sup>10</sup> 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<sup>11</sup>.

The cumulative impacts of development on legal lots containing ESHA in the Santa Monica Mountains, including the required fuel modification and/or brushing is substantial. As discussed above, these impacts can be reduced by considering project alternatives and mitigation measures, but they cannot be completely avoided. However, the Commission can only find that this project alternative minimizes ESHA impacts if the remaining ESHA on the site is preserved to the extent possible. As such, this project alternative, as a whole, will minimize impacts to ESHA to the maximum extent feasible if the remaining ESHA on the project site is protected. The most effective way to protect the remaining ESHA on the site is through an open space conservation easement held by the Mountains Recreation and Conservation Authority that prohibits development on the remainder of the site now and in the future.

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<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.

<sup>10</sup> Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. *Nature* 413:635-639.

<sup>11</sup> 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.

While impacts from fuel modification and development in ESHA can be reduced through siting and design alternatives for new development, they cannot be completely avoided, given the high fire risk and the extent of ESHA on the site. The Commission finds that the loss of chaparral ESHA resulting from the removal, conversion, or modification of natural habitat for new development, including fuel modification and brush clearance must be mitigated. The acreage of habitat that is impacted must be determined based on the size of the required fuel modification zone.

The applicants' approved fuel modification plan (approved by the Los Angeles County Fire Department) shows the use of the standard three zones of vegetation modification. Zone "A" (setback zone) extends 20 feet from the proposed residence and garage. Zone "B" (irrigated zone) extends from the outermost edge of Zone "A" to 100 feet from the structure. Zone "C" (thinning zone) extends from Zone "A" to 200 feet from the proposed residence. However, in this case, the subject lot adjoins a parcel owned by the Santa Monica Mountains National Recreation Area (SMMNRA)/National Park Service (NPS) which is located to the west. The normally 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. Thus, in this case, although the typical fuel modification zone on this parcel would extend from the approved structure up to 200 feet into chaparral ESHA on the adjoining parcel to the west owned by the SMMNRA/NPS, the SMMNRA/NPS has informed staff that National Park Service policies do not allow for removal of native vegetation and wildlife habitat for the purpose of accommodating adjacent private property development. Since no clearing for fuel modification purposes is allowed on SMMNRA/NPS property, the applicants are proposing a 6 foot high "fire wall" along 275 ft. of their western property boundary to reduce the fire hazard on site. As a result, according to the applicant, no fuel modification is required by the Los Angeles County on NPS property.. In order to ensure that fire hazard is minimized, **Special Conditions Three (3) and Eleven (11)** require the applicant to submit final fuel modification plans for the subject property, approved by the Los Angeles County Fire Department.

As noted above, with the exception of the existing building pad, disturbed area, and dirt access road (Hovenweep Lane) the subject site is considered ESHA. The ESHA areas that will be impacted by the proposed project are the areas of proposed residential fuel modification and brush clearance, with the exception of those areas in the vicinity of the previously disturbed dirt access road. The precise area of ESHA that will be impacted by the proposed development has not been calculated. Therefore, the Commission finds that it is necessary to require the applicant to delineate the ESHA both on and offsite that will be impacted by the proposed development including the areas affected by fuel modification and brushing activities, as required by **Special Condition Eight (8)**.

The Commission has identified three methods for providing mitigation for the unavoidable loss of ESHA resulting from development, including habitat restoration, habitat conservation, and an in-lieu fee for habitat conservation. The Commission finds that these measures are appropriate in this case to mitigate the loss of chaparral habitat



on and offsite. These three mitigation methods are provided as three available options for compliance with **Special Condition Eight (8)**. The first method is to provide mitigation through the restoration of an area of degraded habitat (either on the project site, or at an off-site location) that is equivalent in size to the area of habitat impacted by the development. A restoration plan must be prepared by a biologist or qualified resource specialist and must provide performance standards, and provisions for maintenance and monitoring. The restored habitat must be permanently preserved through the recordation of an open space easement. This mitigation method is provided for in **Special Condition Eight (8), subpart A**.

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. This mitigation method is provided for in **Special Condition Eight (8), subpart B**.

The third habitat impact mitigation option is an in-lieu fee for habitat conservation. The fee is based on the habitat types in question, the cost per acre to restore or create the comparable habitat types, and the acreage of habitat affected by the project. In order to determine an appropriate fee for the restoration or creation of chaparral and coastal sage scrub habitat, the Commission's biologist contacted several consulting companies that have considerable experience carrying out restoration projects. Overall estimates varied widely among the companies, because of differences in the strategies employed in planning the restoration (for instance, determining the appropriate number of plants or amount of seeds used per acre) as well as whether all of the restoration planting, monitoring and maintenance was carried out by the consultant or portions are subcontracted. Additionally, the range of cost estimates reflect differences in restoration site characteristics including topography (steeper is harder), proximity to the coast (minimal or no irrigation required at coastal sites), types of plants (some plants are rare or difficult to cultivate), density of planting, severity of weed problem, condition of soil, etc. Larger projects may realize some economy of scale.

Staff determined the appropriate mitigation for loss of or chaparral ESHA should be based on the actual installation of replacement plantings on a disturbed site, including the cost of acquiring the plants (seed mix and container stock) and installing them on the site (hydroseeding and planting). Three cost estimates were obtained for the installation of plants and seeds for one-acre of restoration. These estimates were \$9,541, \$12,820, and \$13,907 per acre of plant installation. The Commission finds it appropriate to average the three estimates of plant installation to arrive at the reasonable in-lieu fee to mitigate for the loss of ESHA associated with the approval of development within an ESHA. Based on this averaging, the required in-lieu fee for habitat mitigation is \$12,000 (rounded down from the average figure of \$12,089 to simplify administration) per acre of habitat.

The Commission finds that the in-lieu fee of \$12,000 per acre is appropriate to provide mitigation for the habitat impacts to ESHA areas where all native vegetation will be removed (building site, the "A" zone required for fuel modification, and off-site brush clearance, if required), and where vegetation will be significantly removed and any remaining vegetation will be subjected to supplemental irrigation (the "B" zone or any other irrigated zone required for fuel modification). In these areas, complete removal or significant removal of ESHA, along with irrigation completely alters the habitat and eliminates its value to the native plant and animal community.

ESHA modified for the "C" zone that is thinned but non-irrigated (required for fuel modification) is certainly diminished in habitat value, but unlike the building site, "A" zone, "B" zone, and any other irrigated zone, habitat values are not completely destroyed. Native vegetation in the "C" zone is typically required to be thinned, and shrubs must be maintained at a certain size to minimize the spread of fire between the individual plants. This area is not typically required to be irrigated, although in this case, as discussed below, temporary irrigation may be required in order to re-establish chaparral vegetation that had previously been removed by dirt bike and all-terrain vehicle use. As such, the Commission finds that it is not appropriate to require the same level of in-lieu fee mitigation for impacts to ESHA within a non-irrigated "C" zone required for fuel modification. Although the habitat value in the "C" zone (or any other non-irrigated zone) is greatly reduced, it is not possible to precisely quantify the reduction. The Commission's biologist believes that the habitat value of non-irrigated fuel modification zones is reduced by at least 25 percent (and possibly more) due to the direct loss of vegetation, the increased risk of weed invasion, and the proximity of disturbance. The Commission finds that it is also less costly and difficult to restore chaparral habitat when some of the native vegetation remains, rather than when all of the native habitat is removed. Because of the uncertainty and the inability to precisely quantify the reduction in habitat value, the Commission concludes that it is warranted to impose a mitigation fee of \$3,000 per acre (one quarter of the cost of full restoration) for the "C" zone or other non-irrigated fuel modification zone.

In this case, the applicant's approved fuel modification plan (approved by the Los Angeles County Fire Department) shows the use of three zones of vegetation modification. Zone "A" (setback zone) extends 20 feet from the proposed residence and garage. Zone "B" (irrigation zone) extends from the outer edge of Zone "A" to 100 feet from the proposed residence and garage. Zone "C" (thinning zone) extends from Zone "A" to 200 feet from the proposed residence and garage. As such, the ESHA area that will be permanently impacted by the proposed project is the required fuel modification area and proposed residence area excluding the disturbed area adjacent to Hovenweep Lane and south and central portion of the subject lot. The appropriate in-lieu fee calculation would then be based on \$12,000 per acre for any irrigated fuel modification area (the "A" and "B" Zones), or brush clearance area offsite and \$3,000 per acre of un-irrigated fuel modification area (zone "C") on or offsite.

The Commission notes that the use of rodenticides containing anticoagulant compounds have been linked to the death of sensitive predator species, including

mountain lions and raptors, in the Santa Monica Mountains. These species are a key component of chaparral and coastal sage scrub communities in the Santa Monica Mountains considered ESHA. Therefore, in order to avoid adverse impacts to sensitive predator species, **Special Condition Three (3)**, disallows the use of rodenticides containing any anticoagulant compounds on the subject property.

Furthermore, in order to ensure that vegetation clearance for fire protection purposes does not occur prior to commencement of grading or construction of the proposed structures, the Commission finds that it is necessary to impose a restriction on the removal of natural vegetation as specified in **Special Condition Seven (7)**. This restriction specifies that natural vegetation shall not be removed until grading or building permits have been secured and construction of the permitted structures has commenced. The limitation imposed by **Special Condition Seven (7)** avoids loss of natural vegetative coverage resulting in unnecessary erosion in the absence of adequately constructed drainage and run-off control devices and implementation of the landscape and interim erosion control plans.

The Commission notes that streams and drainages, such as Las Flores Canyon Creek located downslope of the proposed building pad, provide important habitat for plant and animal species. Section 30231 of the Coastal Act provides that the quality of coastal waters and streams shall be maintained and restored whenever feasible through means such as: controlling runoff, preventing interference with surface water flows and alteration of natural streams, and by maintaining natural vegetation buffer areas. In past permit actions the Commission has found that new development adjacent to or upslope of coastal streams and natural drainages results in potential adverse impacts to riparian habitat and marine resources from increased erosion, contaminated storm runoff, introduction of non-native and invasive plant species, disturbance of wildlife, and loss of riparian plant and animal habitat.

The Commission finds that potential adverse effects of the proposed development on riparian and aquatic habitats of these streams may be further minimized through the implementation of a drainage and polluted runoff control plan, which will ensure that erosion is minimized and polluted run-off from the site is controlled and filtered before it reaches natural drainage courses within the watershed. Therefore, the Commission requires **Special Condition Two (2)**, the Drainage and Polluted Runoff Control Plan, which requires the applicant to incorporate appropriate drainage devices and Best Management Practices (BMPs) to ensure that run-off from the proposed structures, impervious surfaces, and building pad area is conveyed offsite in a non-erosive manner and is treated/filtered to reduce pollutant load before it reaches coastal waterways. **Special Condition Two (2)** will ensure implementation of these and other BMPs to reduce polluted runoff. Additionally, **Special Condition Three (3)** requires all graded areas to be replanted with native vegetation so as to reduce erosion and sediment laden runoff into coastal waterways.

In addition, the Commission has found that night lighting of areas in the Malibu/Santa Monica Mountains creates a visual impact to nearby scenic roads, parks, and trails. In

addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. The subject site contains environmentally sensitive habitat. Therefore, **Special Condition Six (6)** limits night lighting of the site in general; limits lighting to the developed area of the site; and specifies that lighting be shielded downward. The restriction on night lighting is necessary to protect the night time rural character of this portion of the Santa Monica Mountains consistent with the scenic and visual qualities of this coastal area. In addition, low intensity security lighting will assist in minimizing the disruption of wildlife traversing this rural and relatively undisturbed area at night. Thus, the lighting restrictions will attenuate the impacts of unnatural light sources and reduce impacts to sensitive wildlife species.

Furthermore, fencing of the site would adversely impact the movement of wildlife through the chaparral and oak woodland ESHA on this parcel. Therefore, the Commission finds it is necessary to limit fencing to the development area as required in **Special Condition Three (3)**. In addition, **Special Condition Nos. 3 and 12** require the applicant to remove the temporary construction trailers/storage containers within 2 years of the issuance of the coastal permit or within 30 days of the County of Los Angeles's certificate of occupancy whichever occurs first. Additional time may be granted by the Executive Director for good cause. The areas where these trailers are located are also required to be landscaped according to the approved landscape plan within 30 days of the removal.

Finally, the Commission finds that the amount and location of any new development that may be proposed in the future on the subject site is significantly limited by the unique nature of the site and the environmental constraints discussed above. Therefore, to ensure that any future structures, additions, change in landscaping or intensity of use at the project site, that may otherwise be exempt from coastal permit requirements, are reviewed by the Commission for consistency with the resource protection policies of the Coastal Act, **Special Condition Nine (9)**, the future development restriction, has been required. **Special Condition Ten (10)** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

For the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30230, 30231, 30240, and 30107.5 of the Coastal Act.

#### D. Water Quality

The Commission recognizes that new development in the Santa Monica Mountains 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, and 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:

***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, minimizing alteration of natural streams.***

The project site is located in the Las Flores Creek Canyon watershed. While no development is proposed in drainages onsite, the proposed development will result in an increase in impervious surface, which in turn decreases the infiltrative function and capacity of existing permeable land on site. The reduction in permeable space leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. Further, pollutants commonly found in runoff associated with residential use include petroleum hydrocarbons including 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; fertilizers, herbicides, and pesticides; and bacteria and pathogens from 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 which provide food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; and acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes and reduce optimum populations of marine organisms and have adverse impacts on human health.

Therefore, in order to find the proposed development consistent with the water and marine resource policies of the Coastal Act, the Commission finds it necessary to require the incorporation of Best Management Practices designed to control the volume, velocity and pollutant load of stormwater leaving the developed site. Critical to the successful function of post-construction structural BMPs in removing pollutants in stormwater to the Maximum Extent Practicable (MEP), is the application of appropriate design standards for sizing BMPs. The majority of runoff is generated from small storms because most storms are small. Additionally, storm water runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event. Designing BMPs for the small, more frequent storms,

rather than for the large infrequent storms, results in improved BMP performance at lower cost.

The Commission finds that sizing post-construction structural BMPs to accommodate (infiltrate, filter or treat) the runoff from the 85<sup>th</sup> percentile storm runoff event, in this case, is equivalent to sizing BMPs based on the point of diminishing returns (i.e. the BMP capacity beyond which, insignificant increases in pollutants removal (and hence water quality protection) will occur, relative to the additional costs. Therefore, the Commission requires the selected post-construction structural BMPs be sized based on design criteria specified in **Special Condition No. Two (2)**, and finds this will ensure the proposed development will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

Furthermore, interim erosion control measures implemented during construction and post construction landscaping will serve to minimize the potential for adverse impacts to water quality resulting from drainage runoff during construction and in the post-development stage. Therefore, the Commission finds that **Special Condition Three (3)** is necessary to ensure the proposed development will not adversely impact water quality or coastal resources.

Finally, the proposed development includes the installation of an on-site septic system to serve the residence. The applicants' geologic consultants performed percolation tests and evaluated the proposed septic system. The report concludes that the site is suitable for the septic system and there would be no adverse impact to the site or surrounding areas from the use of a septic system. Finally, the County of Los Angeles Environmental Health Department has given in-concept approval of the proposed septic system, determining that the system meets the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of resources. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30231 of the Coastal Act.

## **E. Visual Resources**

Section **30251** of the Coastal Act states:

***The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.***

Section 30251 of the Coastal Act requires scenic and visual qualities to be considered and preserved. Section 30251 also requires that development be sited and designed to protect views of scenic areas, minimize alteration of landforms, and be visually compatible with the surrounding area.

In addition, the Malibu/Santa Monica Mountains LUP provides policy guidance regarding the protection of visual resources. The Coastal Commission, as guidance in the review of development proposals in the Santa Monica Mountains, has applied these policies.

- P91** *All new development shall be designed to minimize impacts and alterations of physical features, such as ravines and hillsides, and processes of the site (i.e., geological, soils, hydrological, water percolation and runoff) to the maximum extent feasible.*
- P125** *New development shall be sited and designed to protect public views from LCP-designated highways to and along the shoreline and to scenic coastal areas, including public parklands. Where physically and economically feasible, development on a sloped terrain should be set below road grade.*
- P129** *Structures should be designed and located so as to create an attractive appearance and harmonious relationship with the surrounding environment.*
- P130** *In highly scenic areas and along scenic highways, new development (including buildings, fences, paved areas, signs, and landscaping) shall:*
- Be sited and designed to protect views to and along the ocean and to and along other scenic features, as defined and identified in the Malibu LUP.*
  - Minimize the alteration of natural landforms*
  - Be landscaped to conceal raw cut slopes*
  - Be visually compatible with and subordinate to the character of its setting.*
  - Be sited so as to not significantly intrude into the skyline as seen from public viewing places.*
- P131** *Where feasible, prohibit placement of structures that will break the ridgeline views, as seen from public places*
- P134** *Structures shall be sited to conform to the natural topography, as feasible. Massive grading and reconfiguration of the site shall be discouraged.*
- P142** *New development along scenic roadways shall be set below the road grade on the down hill side wherever feasible, to protect designated scenic canyon and ocean views.*

The Commission examines the building site, the proposed grading, and the size and height of the building pad and structure. In order to ensure that adverse impacts to public views are minimized, the Commission reviews the publicly accessible locations where the proposed development is visible to assess potential visual impacts to the public. The development of the proposed four-level structure (a three-story residence above a partially underground garage level) raises two issues regarding the siting and design: one, whether or not public views from public roadways will be adversely impacted, or two, whether or not public views from public trails and lands will be impacted.

The Coastal Act and the certified Malibu/Santa Monica Mountains Land Use Plan protects visual resources in the Santa Monica Mountains. The proposed development is located south of Saddle Peak and in the vicinity of Schueren Road. The proposed development is located on a south facing slope below Saddle Peak Road and the crest of the ridgeline near the intersection of Saddle Peak, Schueren, and Stunt Roads, all of which are visually prominent locations. This ridgeline is designated Significant Ridgeline along the Piuma to Saddle Peak ridge in the 1986 Malibu/Santa Monica Mountains Land Use Plan as slopes on both the north and south side of the ridgeline are considered integral to the Malibu Canyon and Saddle Peak viewshed area. Both Saddle Peak and Schueren Roads are identified in the 1986 LUP as Scenic Highways, second priority and first priority, respectively. The LUP designates Schueren Road (and Piuma Road to the west) as a first priority scenic highway by stating: "This route, running from Malibu Canyon Road to Saddle Peak Road, parallels a portion of the Backbone Ridge, offering simultaneous views of the ocean, major canyons, and steep rocky slopes." The LUP also designates Saddle Peak Road as a second priority scenic highway by stating: "Intersects Stunt and Schueren Roads on the west, Tuna Canyon Road on the east. This route also parallels a portion of the Backbone Ridge, offering simultaneous views of the ocean, major canyons, and steep rocky slopes."

Travelers along both Schueren and Saddle Peak Roads have a view of the unique sandstone rock formations south of Schueren Road designated a public view of a highly scenic area and as "Scenic Element" defined in the LUP "as natural features of the landscape with exhibit a high scenic value." The Schueren Road Sandstone is designated as Scenic Element No. 13 in the LUP. This sandstone formation is also highly visible from a portion of Topanga State Park to the north and northeast of the project site, the Saddle Peak ridge which includes the Backbone Trail to the northwest, north and northeast, and NPS land located to the north. Northbound vehicle travelers on Schueren Road get a full view of the south facing slope of the Saddle Peak ridge and the project site near its intersection with Hovenweep Lane. Travelers in either direction on Saddle Peak Road get a view of the Saddle Peak ridge and the subject site located south of Saddle Peak Road.

The applicants propose to construct a 4,771 sq ft., three-story single family residence with a five car tandem 1,917 sq. ft. basement garage, solar photovoltaic system, 677 ft. long partially paved driveway, septic system, 5,000 gallon water tank partially buried, temporary 44 ft. by 14 ft. residential trailer and two 40 ft. by 8 ft. storage containers to



be removed at occupancy, thermal exchange system within graded area, terraced gardens and landscaping, 6 ft. high fire wall and fence, remove fence enclosure (former dog run), and 2,320 cu. yds. of grading (1,160 cu. yds. of cut and 1,160 cu. yds. of fill). The grading for the residence and its access driveway is 693 cu. yds. of cut and 1,102 cu. yds. of fill while the grading for Hovenweep Lane is 645 cu. yds. of cut and 58 cu. yds. of fill. The proposed residence is cut into the slope up to about 12 feet at the north side of the building pad at the 2,293 foot elevation level (Exhibits 1-13, 15-24).

The first residential floor above the garage is 2,154 sq. ft. at the 2,305 foot elevation. The second residential floor is 1,596 sq. ft. at the 2,316.5 foot elevation and the third residential floor loft is 1,021 sq. ft. at the 2,326 foot elevation. The roof peaks at the 2,340 foot elevation creating a total of 35 feet of height above the finished grade. Cut material is proposed to be used as fill for the driveway and turnaround area, a garden area surrounding the driveway and along the western and eastern sides of the residence for fire department required walkways. The size of the building pad including the cut for the pad, the fill areas, less the fire department turnaround area and its supporting fill, and the access driveway is 6,900 sq. ft.

The proposed project also includes improvements to a 677 ft. long portion of partially paved Hovenweep Lane access road, including placement of gravel road material over 208 linear feet and the paving of about 469 linear feet. In addition, the project also includes installation of a septic system, a partially buried water tank, a temporary residential trailer and two storage containers, terraced gardens and landscaping, a 6 ft. high fire wall along the western property boundary and fence, the removal of a fenced area, and 2,320 cu. yds. of grading (1,160 cu. yds. of cut and 1,160 cu. yds. of fill). Staff notes that the existing Hovenweep Lane appears in aerial photos of the site since prior to 1977, which indicates that its creation pre-dates the effective date of the Coastal Act.

The project site is located on a 0.85 acre lot on a site with a 4:1 south facing slope south of and below Schueren Road near its intersection with Saddle Peak and Stunt Roads within the upper reaches of the Las Flores Canyon Watershed of the Santa Monica Mountains in Los Angeles County. The site is accessed from Hovenweep Lane which extends from the portion of Schueren Road located to the south. The lot adjoins Santa Monica Mountains National Recreation Area (NPS) lands to the west. Slopes on the subject lot descend from the top of a ridge and Saddle Peak Road along the northern property boundary to a relatively flat area along Hovenweep Lane on the southern property boundary. The lot is relatively narrow averaging about 100 feet in width. The majority of the lot is undeveloped and vegetated with dense chaparral, except for the existing building site and existing disturbed area adjacent to Hovenweep Lane that was graded prior to the effective date of the Coastal Act in 1977. There are no oak trees on the property. An approximate 17-foot wide section of the unimproved Hovenweep Lane extends across the property from the southwest to southeast corners of the lot and from there to the east of the subject lot. These disturbed areas on the lot and this portion of Hovenweep Lane pre-date the effective date of the Coastal Act in 1977 and are not considered ESHA.

The subject lot is surrounded by vacant lots and parcels of various sizes located to the west, north, east predominantly covered in chaparral habitats. To the south and southeast are lots developed with single family residences adjacent to Schueren Road.

The project site is visible from adjoining land located to the west owned by the Santa Monica Mountains National Recreation Area (SMMNRA)/National Park Service (NPS); this land is located within a "U shaped bend" of Schueren Road. To the north and northeast, a distance as close as 200 feet from the project site there is a portion of Topanga State Park along the north side of Saddle Peak Road. There is one existing public trail, the Backbone Trail located as close as about 300 feet from the project site at about the 2,385 foot elevation traversing the ridge above Saddle Peak Road. The planned future public Tuna Canyon Trail would traverse the project site from the east by crossing Hovenweep Lane along the adjoining lot to the east. The potential future trail would cross the subject lot north of the proposed residence. The project site is located on a slope within an area dominated by chaparral vegetation and with relatively few neighboring structures and will be highly visible from the designated scenic public roads in the area, nearby NPS and State Park lands, the existing Backbone Trail, and the planned Tuna Canyon Trail.

The following is an analysis of the public views of the proposed residence as viewed from 5 different sites along public roads, an existing trail and public park lands as identified in Exhibit 18. Each of these 5 viewsites include the specific location identified on Exhibit 18 with the elevation of the view site, its distance from the proposed residence and the roof peak elevation difference either below or above the viewsite location. Each of these 5 viewsites are illustrated with a photograph of the proposed residence as depicted by story poles and yellow ribbon across the peak of the roof and the outline of the roof perimeter (Exhibits 19 – 21). Viewsite No. 6 is from Hovenweep Lane, a private road, at the southeast corner of the subject lot to the south elevation of the SFR. The elevation of the top of the roof peak is 2340 foot elevation above sea level.

A review of the public views affected from each of these viewsites concludes that the proposed four-level structure (three-story residence with a partially subterranean garage level) would be 35 feet above the finished grade and highly visible from several public viewing areas. Further, the structure will not be in character with the very limited development in the immediate area. All adjoining lots and parcels adjacent to the subject lot are currently vacant and vegetated with relatively undisturbed chaparral vegetation. There is one lot within the general vicinity, located to the southeast along Schueren Road, with existing residential development that is two stories in height (as compared to the proposed 35 ft. high, 4-level residential structure. As viewed from viewsite Nos. 1, 2, and 3 identified on Exhibit 18 located along Saddle Peak Road, the Backbone Trail and the intersection of Saddle Peak, Stunt, and Schueren Roads, respectively, (as identified in Exhibits 18, 19 and 20) the peak of the proposed roof will be located below the elevation of these viewsites. However, from these three viewsites, public views of the relatively undisturbed chaparral vegetation and or some sandstone rocks will still be partially blocked by the 35 foot tall residence within a canyon,

sandstone rock formation and Pacific Ocean viewshed. As viewed from viewsite No. 4 at the intersection of Schueren Road and Hovenweep Lane (as identified in Exhibits 18 and 20) the peak of the roof will be about 126 feet above this No. 4 viewsite at a distance of about 560 feet and will block a currently undisturbed view of chaparral vegetation within a canyon viewshed. As viewed from viewsite No. 5 on the adjoining NPS land, as identified in Exhibits 18 and 21, the peak of the roof will extend approximately 50 feet above about 15 feet of existing landform above this viewsite which is a canyon viewshed and will be highly visible. Viewsite No. 6 identifies the south facing elevation as viewed from Hovenweep Lane, a private road, at the southeast corner of the lot (Exhibits 18 and 21). This elevation face is about 45 feet high (Exhibit 10).

A review of the proposed residence, which will be cut into the slope at the 2,293 foot elevation with its maximum roof height at the 2,340 foot elevation as viewed from these public viewsites concludes it will be highly visible from the public viewsites noted above and identified in Exhibits 18-21. Further, although the residence, as proposed, would not exceed 35 ft. in height from finished grade at any given point of the sloping project site, due to the changes in topography on site, the exposed portions of the residence as viewed from Schueren Road to the south looking north would actually appear to be approximately 45 ft. in height. Thus, the Commission finds that in order to reduce the public visibility of the residence, the height of the structure must be reduced to no more than 28 feet above existing grade. The Commission finds that that this reduction in height would still allow for construction of a multiple story residence with an underground garage cut into the slope. Landscape screening, such as trees and shrubs, could further reduce the public visibility of the structure from the west, north, northeast and south. Therefore, the Commission finds it necessary to impose **Special Condition No. Eleven (11)** that requires the applicant to submit revised plans for the review and approval of the Executive Director reducing the height of the residence/garage to a maximum of 28 feet above existing grade at a maximum height of 2,333 feet above sea level. The Commission also finds it necessary to impose **Special Condition No. Three (3)** that requires the applicant to revise the landscape plan to include vertical elements such as trees and shrubs along the west, north, and east sides of the main residence and partially buried water tank to partially screen these structures from public views from public roads, lands and trails.

The grading necessary to cut the building pad into the slope and fill the area surrounding for the driveway turnaround area, and adjacent sides to provide areas to walk around the structure, is the minimum amount necessary to access the building site from Hovenweep Lane while meeting the requirements of the Los Angeles County Fire Department. Furthermore, no significant cut or fill slopes will result from the above referenced grading, and no adverse or significant visual impacts are anticipated as a result of the driveway colored an earthen tone as seen from Schueren Road and NPS lands as required by **Special Condition No. Five (5)**.

In this case, even with the reduction in height of the proposed structure, as required by **Special Condition No. Eleven (11)** the structure will still be visible from public roads,

lands and trails located to the west, north, east, and south as noted above. However, the Commission finds that the proposed residential structure and driveway, will be less visually intrusive through the use of earth tones for the structures and roofs of the buildings, the driveway, and non-glare glass which helps the structures blend in with the natural setting. Thus, in order to further minimize adverse impacts to public views, the Commission finds it necessary to impose **Special Condition No. Five (5)** to restrict the color of the subject structure, driveway, and partially buried water tank to those compatible with the surrounding environment and prohibit the use of white tones, while requiring the use of non-glare glass windows.

The Commission finds that the amount and location of any new development that may be proposed in the future on the subject site is significantly limited by the unique nature of the site and the environmental constraints discussed above. To ensure that any future additions to the permitted structures, which would otherwise be exempt from coastal permit requirements, are reviewed for consistency with Section 30251 of the Coastal Act, the Commission finds, that it is necessary to require that all future additions or improvements to the permitted structures, or any future development on the subject parcel, will require a permit or permit amendment, as required by **Special Condition No. Nine (9)**.

Further, the Commission has found that the use of native plant materials in landscaping plans can soften the visual impact of construction in the Santa Monica Mountains. The use of native plant materials to revegetate graded or disturbed areas reduces the adverse affects of erosion, which can degrade visual resources in addition to causing siltation pollution in ESHAs, and soften the appearance of development within areas of high scenic quality. The applicant has submitted a landscape and fuel modification plan that uses numerous native species compatible with the vegetation associated with the project site for landscaping and erosion control purposes that will be as required to be revised to include the applicant's revise project description. Furthermore, the plan indicates that only those materials designated by the County Fire Department as being a "high fire hazard" are to be removed as a part of this project and that native materials surrounding the residential structure are to "thinned" rather than "cleared" for wildland fire protection. **Special Condition No. Three (3)** requires that the landscape plan be completed within sixty days of residential occupancy with trees and shrubs to partially screen the development from the north, west, south and east. The planting coverage shall also be adequate to provide ninety (90) percent coverage within two (2) years and shall be repeated, if necessary, to provide such coverage.

The Commission has found that night lighting of areas in the Malibu / Santa Monica Mountains area creates a visual impact to nearby scenic beaches, scenic roads, parks, and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. Therefore, in order to protect the night time rural character of this portion of the Santa Monica Mountains, consistent with the scenic and visual qualities of this coastal area, the Commission limits the nighttime lighting of the property, residence and garage to that necessary for safety as outlined in **Special Condition No. Six (6)**.

**Special Condition No. Ten (10)** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

Therefore, the Commission finds that the project, as conditioned, minimizes impacts to public views to and along the coast and thus, is consistent with Section 30251 of the Coastal Act.

#### **F. Public Access and Trails**

The Coastal Act requires that maximum public access to and along the coast be provided in new development projects. The Coastal Act also requires new development to provide adequate lands suitable for recreation to serve the needs of new residents.

Coastal Act Section 30210 states:

**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.**

Coastal Act Section 30212 states:

**(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.**

Coastal Act Section 30212.5 states:

**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.**

Coastal Act Section 30213 states:

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

Coastal Act Section 30223 states:

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

Coastal Act Section 30252 states:

**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.**  
(emphasis added)

Coastal Act Section 30254 states:

**... Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.**

Coastal Act Section 30530 states:

**It is the intent of the Legislature, consistent with the provisions of Chapter 9 (commencing with Section 31400) of Division 21, that a program to maximize public access to and along the coastline be prepared and implemented in a manner that ensures coordination among and the most efficient use of limited fiscal resources by federal, state, and local agencies responsible for acquisition, development, and maintenance of public coastal accessways. There is a need to coordinate public access programs so as to minimize**

**costly duplication and conflicts and to assure that, to the extent practicable, different access programs complement one another and are incorporated within an integrated system of public accessways to and along the state's coastline. The Legislature recognizes that different public agencies are currently implementing public access programs and encourages such agencies to strengthen those programs in order to provide yet greater public benefits.**

In permitting residential areas in the Santa Monica Mountains to build out, planning agencies have found that to assure continued availability of the recreational resources of the mountains by the general public, compatible recreational facilities to serve both residents of the new development and existing recreational visitors must be provided. A comprehensive recreation plan for the Santa Monica Mountains has been adopted, as cited above, that includes acquisition by the National Park Service and the California Department of Parks and Recreation of extensive tracts of land for recreation. Careful review of development near such areas to ensure that it is sited and designed to be compatible with recreational uses, and development of a system of scenic highways and hiking and equestrian trails to link the larger units together while retaining access to views, provide recreational opportunities, and provide an alternative mode of access to all areas of the mountains and adjacent coastal areas.

Los Angeles County incorporated the Riding and Hiking Trails Master Plan into the Land Use Plan certified by the Coastal Commission in 1986. In order to preserve and formalize the public's right to use these trails, this trail system map was included as part of the certified Malibu/Santa Monica Land Use Plan (LUP). Policy 44 of the LUP requires that trails identified in the Riding and Hiking Trails Master Plan be dedicated at the time of development of the property on which the trails are located:

**P44 A trail dedication requirement shall be a condition of approval for new development as defined in Coastal Act Section 30212(b) where the property encompasses a mapped trail alignment, as indicated in Figure 3 of the LUP, or where the Coastal Commission has previously required trail easements. Nothing in this policy shall preclude relocating a trail that has historically been used by the public as a trail so long as the new trail is equivalent for purposes of public use. Both new development and the trail alignment shall be sited to provide maximum privacy for residents and maximum safety for trail users. Property owners and residents shall not be permitted to grade or develop the trail area in such a way as to render the trail unsafe or unusable. Where a trail is proposed prior to development occurring in an area, credit shall be given to the landowner that will run with the land by formal agreement if a donation is involved. The dedication of a trail right-of-way shall give the landowner the right to request the County to deduct that area from the assessed area of that parcel for tax purposes. It is expressly understood that the public agency shall accept the public liability for operation of the trail.**

The subject property is not currently used by members of the public for hiking or equestrian use. However, one of the trails identified in the certified LUP is the Tuna Canyon Trail, which would provide access from the coastal area at Las Tuna Beach to

the Backbone Trail. This future planned trail would run along a ridge west of Tuna Canyon Road, across Little Las Flores Canyon, along Swenson Road, continuing to the top of Saddle Peak area where the Backbone Trail is located at the intersection of Saddle Peak, Schueren and Stunt Roads. A segment of the planned future Tuna Canyon Trail bisects the subject lot, as identified in a letter from the Los Angeles County Department of Regional Planning to the property owner dated November 2, 2006 with a parcel map identifying the specific location of the Tuna Canyon Trail (Exhibits 22 and 23). Although no physical trail is currently located on the project site, the planned trail would cross the subject lot in a northwesterly direction towards Saddle Peak Road, extending across the adjoining NPS parcel located to the west.

In 1986, the Commission approved a 1,910 sq. ft. single family residence with a 500 sq. ft. carport, septic tank and driveway on the subject site (Coastal Permit No. 5-86-456, Bauer). However, since the applicant never satisfied the conditions of approval that were required to be met prior to issuance of the permit, the coastal permit was never issued and subsequently expired in 1988. As part of its approval of CDP 5-86-455, the Commission required the applicant to record an offer to dedicate a ten foot wide trail across the property to a public agency or private association for public hiking and equestrian use, subject to alignment by the Los Angeles County Department of Parks and Recreation. However, this trail dedication was never recorded and the coastal permit was not issued.

Staff has contacted the National Park Service to discuss the proposed trail route and alternative routes. NPS staff confirmed that the future construction of a trail across the NPS land adjoining the applicant's lot would be difficult considering the very steep slope; the planned trail would cross in a northwest direction to access Saddle Peak Road. Along a similar very steep slope, an alternative trail route might cross further to the west to access Saddle Peak Road. Staff discussed alternative routes across the applicant's subject lot, one along the northern most portion of the lot to access NPS land, a second at the current mapped location (Exhibit 23), and a third along the southern portion of the subject lot just north and west of a turn along Hovenweep Lane. Further study along these possible alternative routes is needed. However, in this case of the proposed project, the applicant has declined to voluntarily offer a trail easement across any portion of the subject property. Although the certified LUP indicates that a planned trail would be located on the subject site, there is no existing trail on the subject site and no evidence that the public has ever previously used the subject site. In addition, there is no evidence that the public has any prescriptive rights on the subject parcel. Thus, the Commission finds that the proposed project will not result in any impacts to public access and that the recordation of an easement for public access across the property is not necessary in conjunction with the proposed development. Therefore, the Commission finds that the proposed project is consistent with Sections 30210, 30212(a), 30212.5, 30213, 30223, 30252, 30254, and 30530 of the Coastal Act.



## **G. Local Coastal Program**

Section 30604 of the Coastal Act states:

***a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).***

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Development Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program, which conforms to Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the projects and are accepted by the applicant. As conditioned, the proposed developments will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed developments, as conditioned, will not prejudice the County of Los Angeles' ability to prepare a Local Coastal Program for this area which is also consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

## **H. California Environmental Quality Act**

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, project alternatives and mitigation measures have been considered and incorporated into the project. Five types of mitigation actions include those that are intended to avoid, minimize, rectify, reduce, or compensate for significant impacts of development. Mitigation measures required as part of this coastal development permit amendment include the avoidance of impacts to

ESHA through clustering structures, prohibiting development outside of the approved development area as required by the future improvement condition. Mitigation measures required to minimize impacts include requiring drainage best management practices (water quality), interim erosion control (water quality and ESHA), limiting lighting (ESHA), restricting structure color (visual resources), and requiring future improvements to be considered through a CDP, reduced height of the residence and use of fire resistant construction materials. Finally, the habitat impact mitigation condition is a measure required to compensate for impacts to ESHA. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

407014 lane & blake report final



Project: APN 4453-024-003

USGS TOPOGRAPHIC MAP

EXHIBIT 1  
APPLICATION No. 4-07-014  
TOPOGRAPHIC MAP

Appendix G 2

County of Los Angeles, Rick Auerbach, Assessor

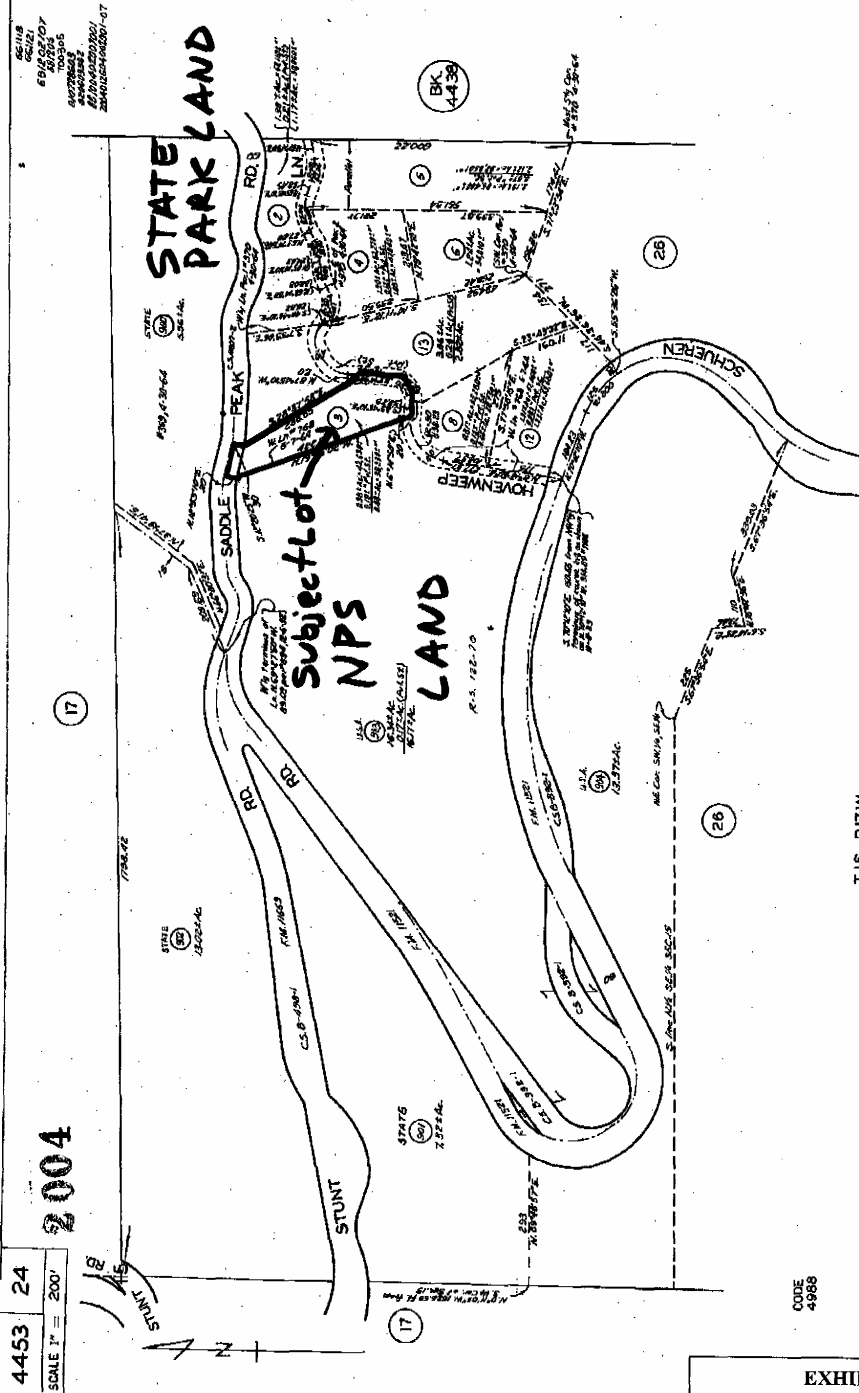


EXHIBIT 2  
APPLICATION No. 4-07-014  
COUNTY APN MAP

4453 24  
SCALE 1" = 200'

2004

CODE  
4986

FOR PREV. ASSMT SEE  
4453-24

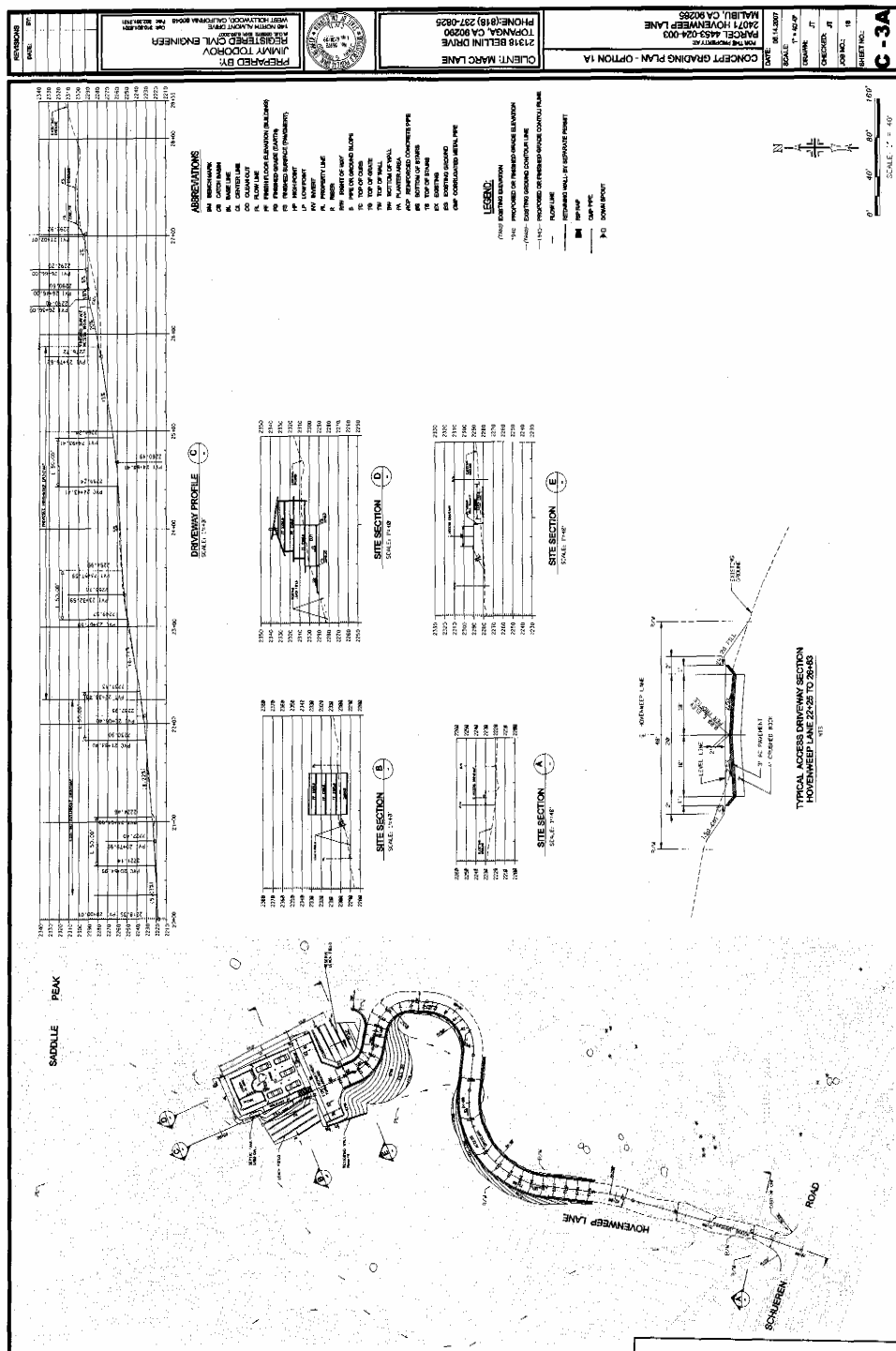
T.I.S., R.I.T.W.

SECTION LINES PER C.S.D. 498-1

ASSESSOR'S MAP  
COUNTY OF LOS ANGELES, CALIF.

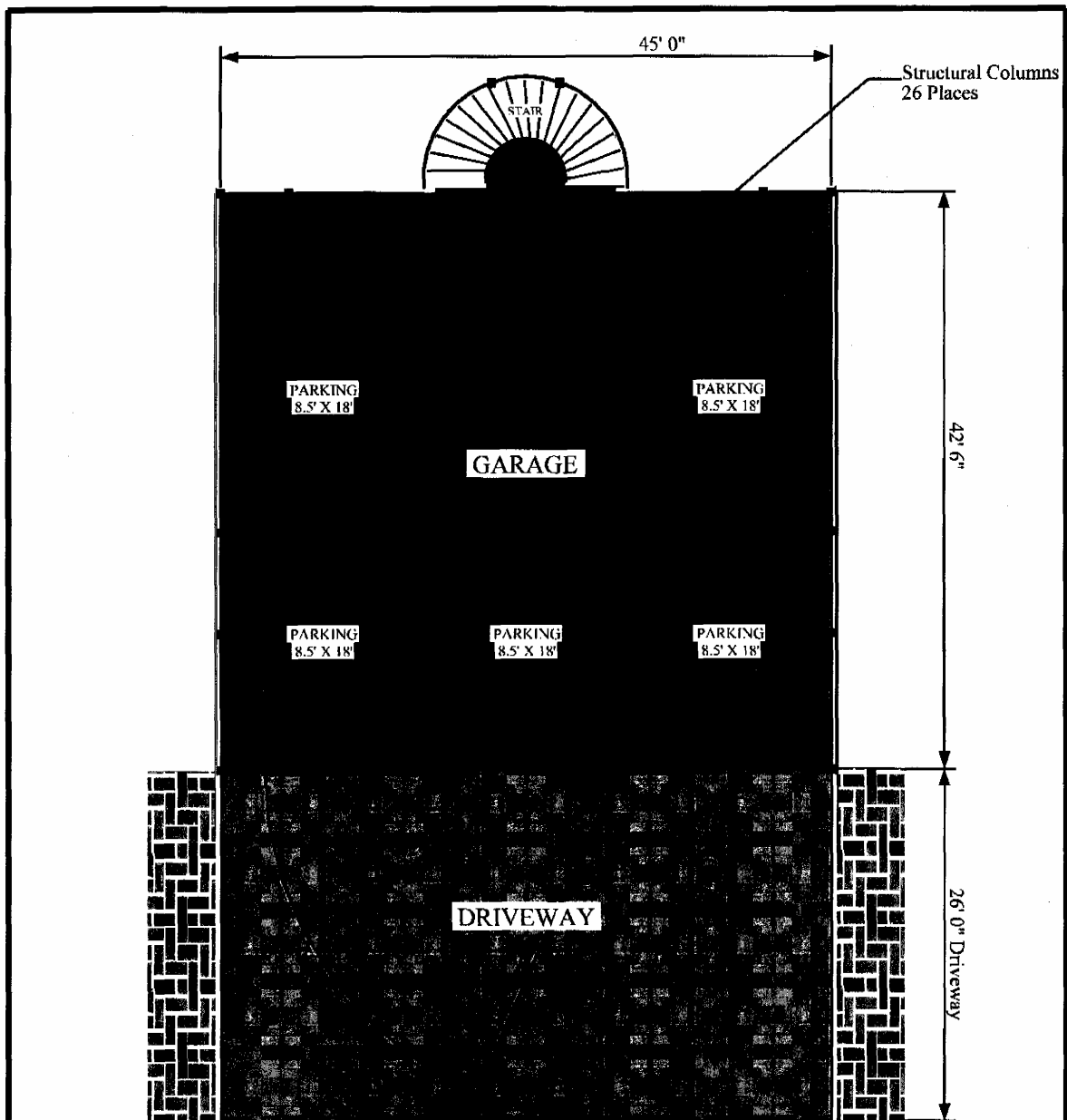






**EXHIBIT 4**  
**APPLICATION No. 4-07-014**  
**GRADING PLAN & SITE SECTIONS**





### Floor Plan, Floor 0

24071 Hovenweep Lane  
Malibu, CA 90265

APN: 4453-024-003  
N 34 04' 50", W 118 38' 36"

Residence for Marc Lane and Samantha Blake

Drawn by: Marc Lane (818) 237-0825

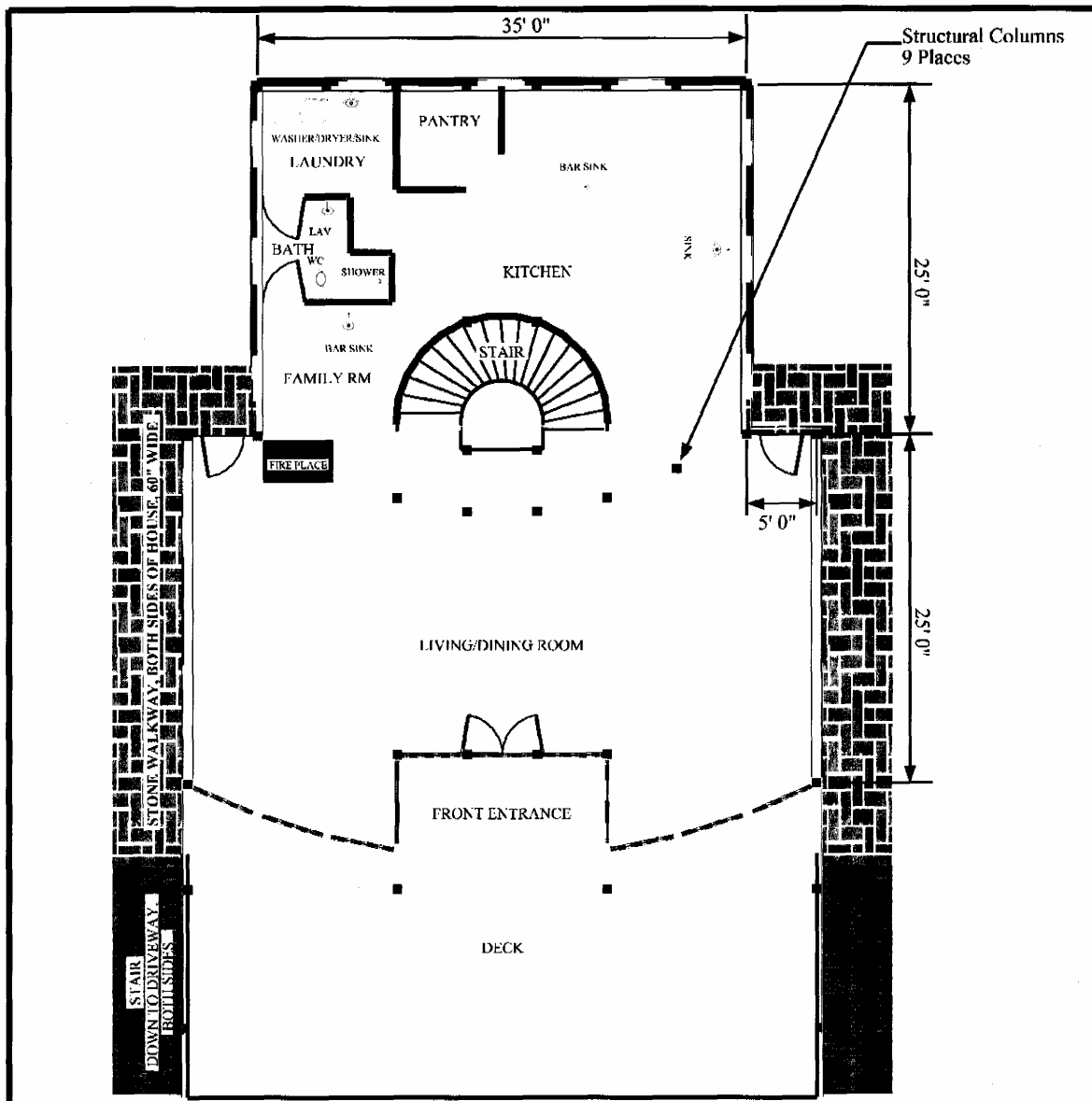
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Sheet 1/1

EXHIBIT 6  
APPLICATION No. 4-07-014  
GARAGE FLOOR PLAN





### Floor Plan, Floor 1

24071 Hovenweep Lane  
Malibu, CA 90265

APN: 4453-024-003  
N 34 04' 50", W 118 38' 36"

Residence for Marc Lane and Samantha Blake

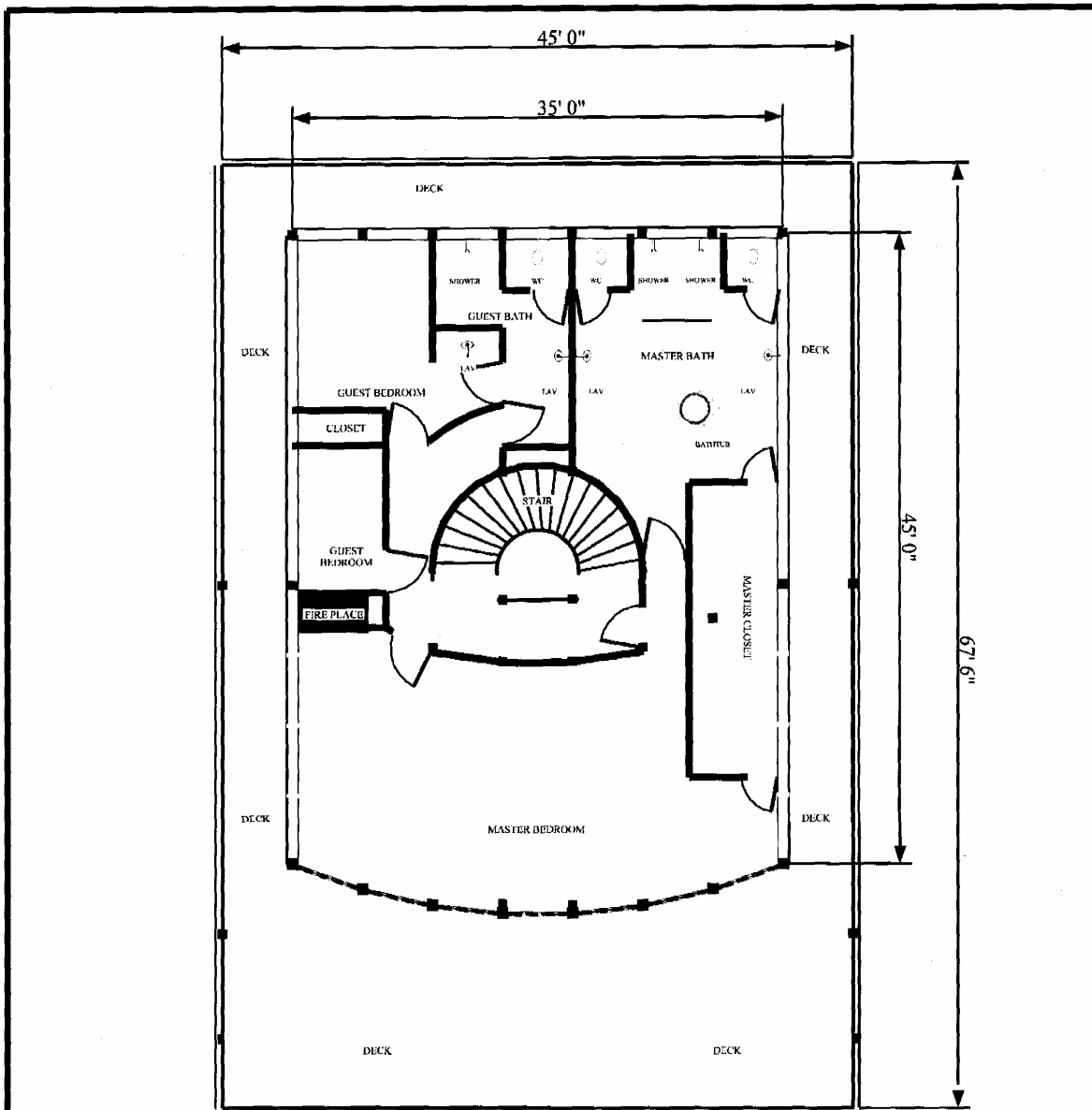
Drawn by: Marc Lane (818) 237-0825

Date: 2006-08-13

Scale: 1" = 10'

Sheet 1/1

EXHIBIT 7  
APPLICATION No. 4-07-014  
FIRST FLOOR PLAN



## Floor Plan, Floor 2

24071 Hovenweep Lane  
Malibu, CA 90265

APN: 4453-024-003  
N 34 04' 50", W 118 38' 36"

Residence for Marc Lane and Samantha Blake

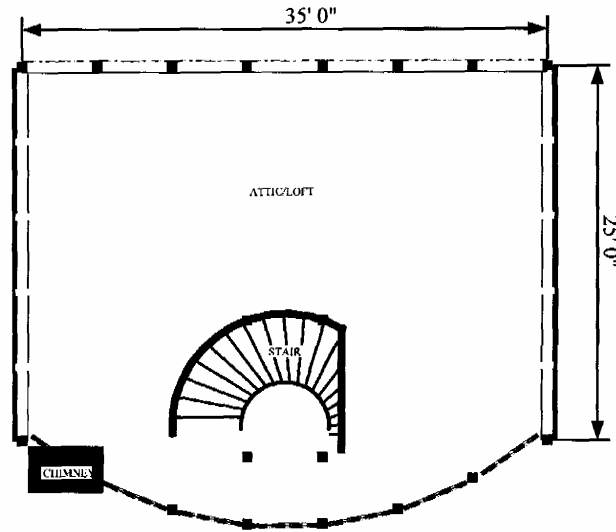
Drawn by: Marc Lane (818) 237-0825

Date: 2006-08-12

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Sheet 1/1

EXHIBIT 8  
APPLICATION No. 4-07-014  
SECOND FLOOR PLAN



### Floor Plan, Floor 3

24071 Hovenweep Lane  
Malibu, CA 90265

APN: 4453-024-003  
N 34 04' 50", W 118 38' 36"

Residence for Marc Lane and Samantha Blake

Drawn by: Marc Lane (818) 237-0825

Date: 2006-08-12

Scale: 1" = 10'

Sheet 1/1

EXHIBIT 9  
APPLICATION No. 4-07-014  
THIRD FLOOR PLAN

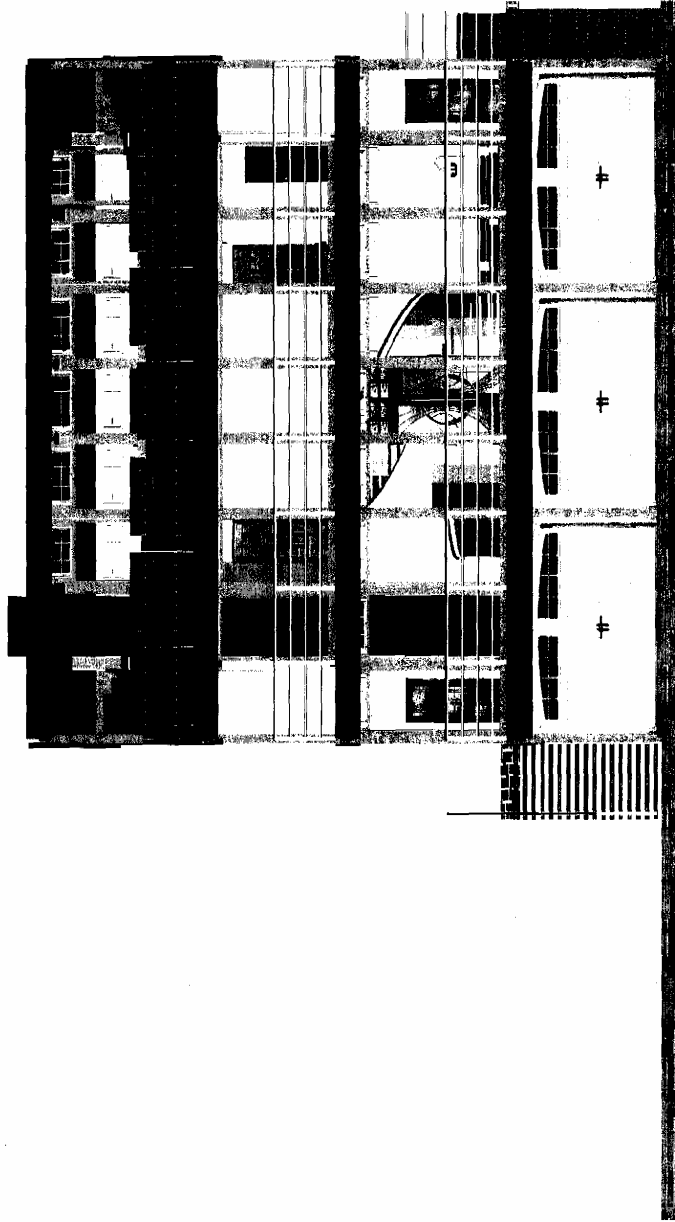


EXHIBIT 10  
APPLICATION No. 4-07-014  
SOUTH ELEVATION

Elevation, South	
24071 Hovenweep Lane Malibu, CA 90265	APN: 4453-024-003 N 34 04' 50", W 118 38' 36"
Residence for Marc Lane and Samantha Blake	
Drawn by: Marc Lane (818) 237-0825	
Date: 2007-01-27	Scale: 1" = 10'
Sheet 1/1	

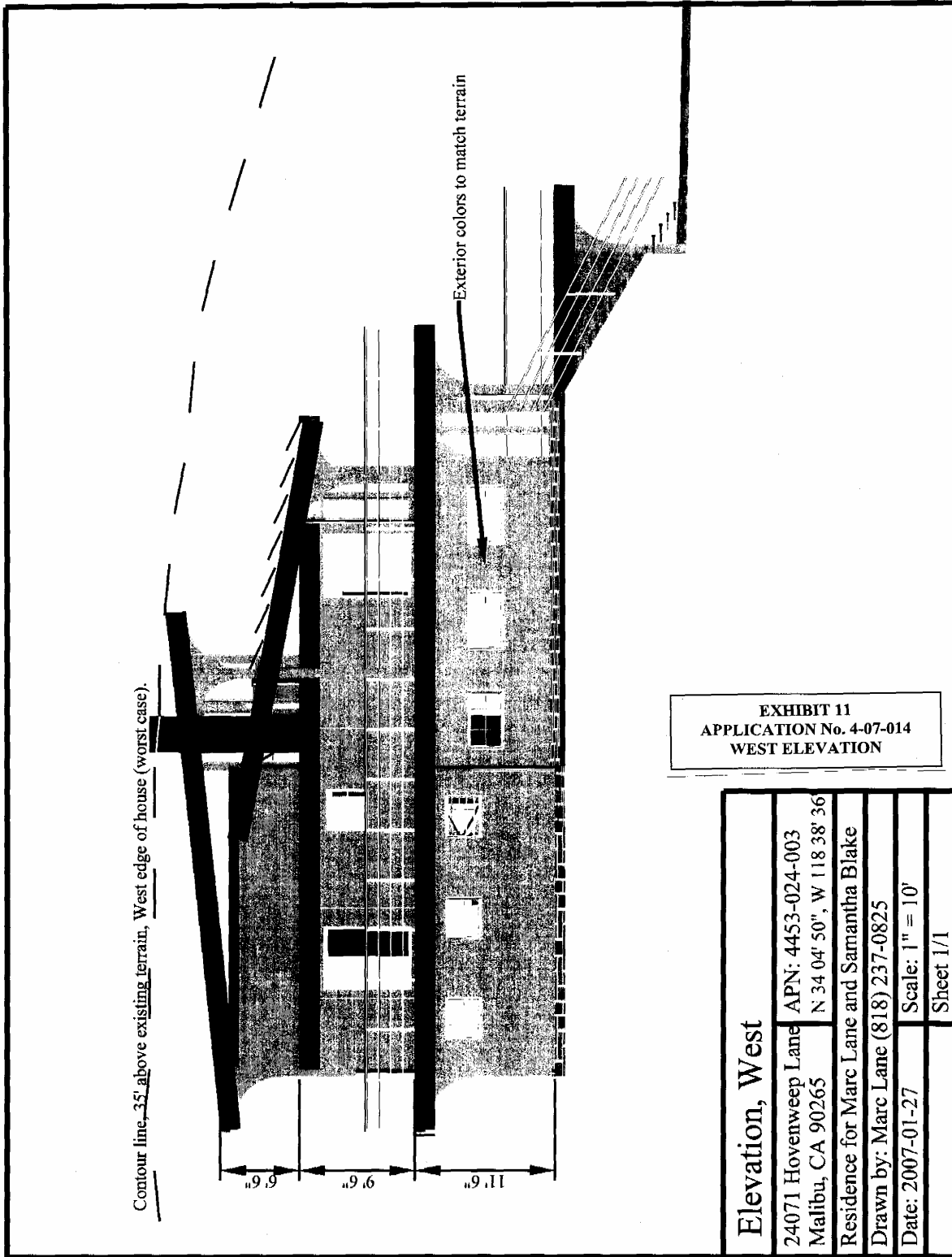


EXHIBIT 11  
APPLICATION No. 4-07-014  
WEST ELEVATION

Elevation, West	
24071 Hovenweep Lane Malibu, CA 90265	APN: 4453-024-003 N 34 04' 50", W 118 38' 36"
Residence for Marc Lane and Samantha Blake	
Drawn by: Marc Lane (818) 237-0825	
Date: 2007-01-27	Scale: 1" = 10'
	Sheet 1/1

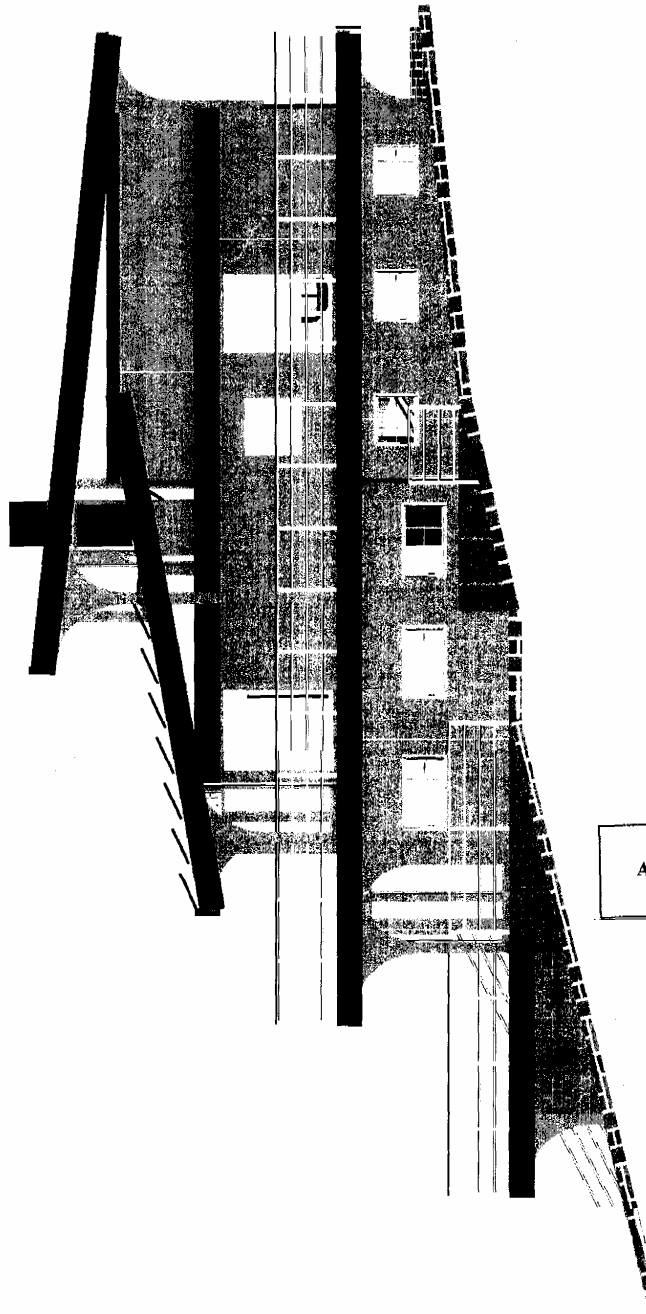


EXHIBIT 12  
APPLICATION No. 4-07-014  
EAST ELEVATION

Elevation, East	
24071 Hovenweep Lane Malibu, CA 90265	APN: 4453-024-003 N 34 04' 50", W 118 38' 36"
Residence for Marc Lane and Samantha Blake	
Drawn by: Marc Lane (818) 237-0825	
Date: 2007-01-28	Scale: 1" = 10'
	Sheet 1/1

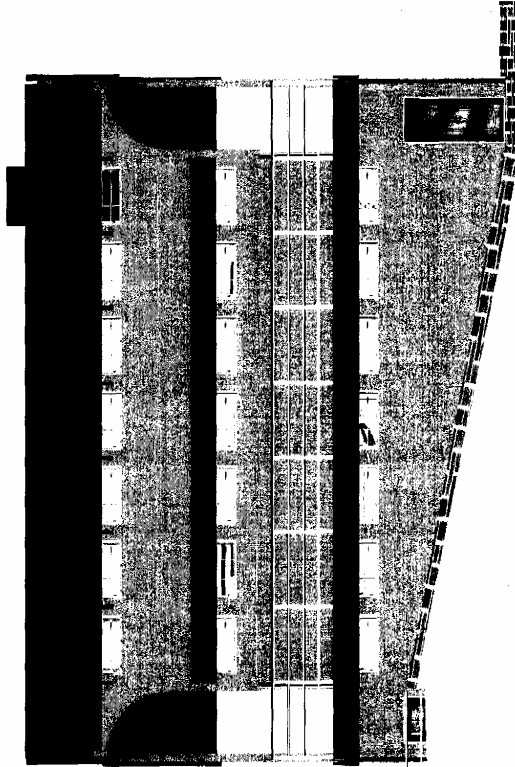


EXHIBIT 13  
APPLICATION No. 4-07-014  
NORTH ELEVATION

Elevation, North	
24071 Hovenweep Lane	APN: 4453-024-003
Malibu, CA 90265	N 34 04' 50", W 118 38' 36"
Residence for Marc Lane and Samantha Blake	
Drawn by: Marc Lane (818) 237-0825	
Date: 2007-01-27	Scale: 1" = 10'
	Sheet 1/1

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400



MEMORANDUM

FROM: John Dixon, Ph.D.  
Ecologist / Wetland Coordinator

TO: Ventura Staff

SUBJECT: Designation of ESHA in the Santa Monica Mountains

DATE: March 25, 2003

In the context of the Malibu LCP, the Commission found that the Mediterranean Ecosystem in the Santa Mountains is rare, and especially valuable because of its relatively pristine character, physical complexity, and resultant biological diversity. Therefore, areas of undeveloped native habitat in the Santa Monica Mountains that are large and relatively unfragmented may meet the definition of ESHA by virtue of their valuable roles in that ecosystem, regardless of their relative rarity throughout the state. This is the only place in the coastal zone where the Commission has recognized chaparral as meeting the definition of ESHA. The scientific background presented herein for ESHA analysis in the Santa Monica Mountains is adapted from the Revised Findings for the Malibu LCP that the Commission adopted on February 6, 2003.

For habitats in the Santa Monica Mountains, particularly coastal sage scrub and chaparral, there are three site-specific tests to determine whether an area is ESHA because of its especially valuable role in the ecosystem. First, is the habitat properly identified, for example as coastal sage scrub or chaparral? The requisite information for this test generally should be provided by a site-specific biological assessment. Second, is the habitat largely undeveloped and otherwise relatively pristine? Third, is the habitat part of a large, contiguous block of relatively pristine native vegetation? This should be documented with an aerial photograph from our mapping unit (with the site delineated) and should be attached as an exhibit to the staff report. For those habitats that are absolutely rare or that support individual rare species, it is not necessary to find that they are relatively pristine, and are neither isolated nor fragmented.

**Designation of Environmentally Sensitive Habitat in the  
Santa Monica Mountains**

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).

EXHIBIT 14  
APPL. NO. 4-07-014  
ESHA Memo



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 Santa Monica Mountains, rare species and habitats often fall within one of two common categories. Many rare species or habitats 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, many areas within the Santa Monica Mountains 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." This test is met for relatively pristine 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.

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

#### **Ecosystem Context of the Habitats of the Santa Monica Mountains**

The Santa Monica Mountains comprise the largest, most pristine, and ecologically complex example of a Mediterranean ecosystem in coastal southern California.

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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<sup>1</sup>. 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, was estimated to be 90 percent free of development in 2000<sup>2</sup>. Therefore, this relatively pristine area is both large and mostly unfragmented, which fulfills a fundamental tenet of conservation biology<sup>3</sup>. The need for large contiguous areas of natural habitat in order to maintain critical ecological processes has been emphasized by many conservation biologists<sup>4</sup>.

In addition to being a large single expanse of land, the Santa Monica Mountains ecosystem is still connected, albeit somewhat tenuously, to adjacent, more inland ecosystems<sup>5</sup>. 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<sup>6</sup> 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

<sup>1</sup> National Park Service. 2000. Draft general management plan & environmental impact statement. Santa Monica Mountains National Recreation Area – California.

<sup>2</sup> Ibid.

<sup>3</sup> 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. Soric 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.

<sup>4</sup> 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), 2<sup>nd</sup> 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), 2<sup>nd</sup> 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.

<sup>5</sup> 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).

<sup>6</sup> 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<sup>7</sup>. 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<sup>8</sup>.

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<sup>9</sup>. Large terrestrial predators are particularly good indicators of habitat connectivity and of the general health of the ecosystem<sup>10</sup>. 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<sup>11</sup>. Sightings of cougars in both inland and coastal areas of the Santa Monica Mountains<sup>12</sup> 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 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<sup>13</sup>. Beyond simply destabilizing the ecosystem, fragmentation and disturbance

<sup>7</sup> Letters received and included in the September 2002 staff report for the Malibu LCP.

<sup>8</sup> Schoch, D. 2001. Survey lists 300 pathways as vital to state wildlife. Los Angeles Times. August 7, 2001.

<sup>9</sup> 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.

<sup>10</sup> 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. *Conserv. Biol.* 10: 949-963. Noss, R. F. 1995. Maintaining ecological integrity in representative reserve networks. World Wildlife Fund Canada.

<sup>11</sup> 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.

<sup>12</sup> Recent sightings of mountain lions include: 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.

<sup>13</sup> Gause, G. F. 1934. The struggle for existence. Baltimore, William and Wilkins 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.

can even cause unexpected and irreversible changes to new and completely different kinds of ecosystems (habitat conversion)<sup>14</sup>.

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<sup>15</sup>. These streams are somewhat unique along the California coast because of their topographic setting. As a "transverse" range, the Santa Monica Mountains are 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. The many different physical habitats of the Santa Monica Mountains support at least 17 native vegetation types<sup>16</sup> 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<sup>17</sup>.

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,

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<sup>14</sup> Scheffer, M., S. Carpenter, J. A. Foley, C. Folke and B. Walker. 2001. Catastrophic shifts in ecosystems. *Nature* 413:591-596.

<sup>15</sup> NPS. 2000. op.cit.

<sup>16</sup> 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.

<sup>17</sup> 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.

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

### **Major Habitats within the Santa Monica Mountains**

The most recent vegetation map that is available for the Santa Monica Mountains 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<sup>18</sup>. 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<sup>19</sup>. 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." Dr. Todd Keeler-Wolf of the California Department of Fish and Game is currently conducting a more detailed, quantitative vegetation survey of the Santa Monica Mountains.

The National Park Service map can be used to characterize broadly the types of plant communities present. The main generic plant communities present in the Santa Monica Mountains<sup>20</sup> are: coastal sage scrub, chaparral, riparian woodland, coast live oak woodland, and grasslands.

### **Riparian Woodland**

Some 49 streams connect inland areas with the coast, and there are many smaller drainages as well, many of which are "blue line." 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<sup>21</sup>. At least four types of riparian communities are discernable in the Santa Monica Mountains: walnut riparian areas, mulefat-dominated riparian areas, willow riparian areas and sycamore riparian woodlands. Of these, the

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<sup>18</sup> 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.

<sup>19</sup> 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.

<sup>20</sup> 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.)

<sup>21</sup> Ibid.

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 Santa Monica Mountains. 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<sup>22</sup>. 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 important connecting links in the Santa Monica Mountains. 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 sensitive species including: the coast range newt, the Pacific pond turtle, 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<sup>23</sup>, and the steelhead trout is federally endangered. The health of the streams is dependent on the ecological functions provided by the associated riparian woodlands. These 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<sup>24</sup> 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

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<sup>22</sup> 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.

<sup>23</sup> 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.

<sup>24</sup> 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).

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<sup>25</sup>. 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<sup>26</sup>. 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<sup>27</sup>. Writing at the same time as Faber, Bowler asserted that, "[t]here is no question that riparian habitat in southern California is endangered."<sup>28</sup> 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 Special Concern has suffered a variety of impacts from human-related disturbances<sup>29</sup>. Human-caused increased fire frequency has resulted in increased sedimentation rates, which exacerbates the cannibalistic predation of adult newts on the larval stages.<sup>30</sup> In addition impacts from non-native species of crayfish and mosquito fish 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 mosquito fish and crayfish<sup>31</sup>. These introduced predators have eliminated the newts from streams where they previously occurred by both direct predation and suppression of breeding.

<sup>25</sup> Testimony by R. Dagit, Resource Conservation District of the Santa Monica Mountains at the CCC Habitat Workshop on June 13, 2002.

<sup>26</sup> Dr. Lee Kats, Pepperdine University, personal communication to Dr J. Allen, CCC.

<sup>27</sup> 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.

<sup>28</sup> 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.

<sup>29</sup> 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.

<sup>30</sup> Kerby, L.J., and L.B. Kats. 1998. Modified interactions between salamander life stages caused by wildfire-induced sedimentation. Ecology 79(2):740-745.

<sup>31</sup> Gamradt, S.C. and L.B. Kats. 1996. Effect of introduced crayfish and mosquitofish on California newts. Conservation Biology 10(4):1155-1162.

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

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.<sup>32</sup> 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<sup>33</sup>. 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 lower elevation areas with high fire frequency, 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."<sup>34</sup> Several other researchers have noted the replacement of chaparral by coastal sage scrub, or coastal sage scrub by chaparral depending on fire history.<sup>35</sup> In transitional and other settings, the mosaic of chaparral and coastal sage

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<sup>32</sup> Cooper, W.S. 1922. The broad-sclerophyll vegetation of California. Carnegie Institution of Washington Publication 319. 124 pp.

<sup>33</sup> Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024. (See attached comment document in Appendix).

<sup>34</sup> Hanes, T.L. 1965. Ecological studies on two closely related chaparral shrubs in southern California. Ecological Monographs 41:27-52.

<sup>35</sup> 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.



scrub enriches the seasonal plant resource base and provides additional habitat variability and seasonality for the many species that inhabit the area.

*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. Whereas coastal sage scrub is 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<sup>36</sup>. New growth of chaparral evergreen shrubs takes place about four months later than coastal sage scrub plants and it continues later into the summer<sup>37</sup>. For example, in coastal sage scrub, California sagebrush flowers and grows from August to February and coyote bush flowers from August to November<sup>38</sup>. 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<sup>39</sup>. The insects in turn are followed by insectivorous birds such as the blue-gray gnatcatcher<sup>40</sup>, 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

<sup>36</sup> 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*, 2<sup>nd</sup> Edition. Calif. Native Plant Soc. Spec. Publ. #9.

<sup>37</sup> Schoenherr, A. A. 1992. *A natural history of California*. University of California Press, Berkeley. 772p.

<sup>38</sup> Dale, N. 2000. Flowering plants of the Santa Monica Mountains. California Native Plant Society, 1722 J Street, Suite 17, Sacramento, CA 95814.

<sup>39</sup> Bailmer, G. R. 1995. What's bugging coastal sage scrub. *Fremontia* 23(4):17-26.

<sup>40</sup> Root, R. B. 1967. The niche exploitation pattern of the blue-gray gnatcatcher. *Ecol. Monog.* 37:317-350.

the Santa Monica Mountains<sup>41</sup>. Five species of hummingbirds also follow the flowering cycle<sup>42</sup>.

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<sup>43</sup>.

Like the scrub jay, most of the species of birds that inhabit the Mediterranean ecosystem in the Santa Monica Mountains require more than one community type in order to 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<sup>44</sup>."

Thus, the Mediterranean ecosystem of the Santa Monica Mountains is a mosaic of vegetation types linked together ecologically. The high biodiversity of the area results

<sup>41</sup> Letter from Dr. Marti Witter, NPS, dated Sept. 13, 2001, in letters received and included in the September 2002 staff report for the Malibu LCP.

<sup>42</sup> 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

<sup>43</sup> Borchert, M. I., F. W. Davis, J. Michaelson 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.

<sup>44</sup> 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.

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<sup>45</sup>.

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<sup>46</sup> 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<sup>47</sup> 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 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.

#### Coastal Sage Scrub

"Coastal sage scrub" is a generic vegetation type that is inclusive of several subtypes<sup>48</sup>. In the Santa Monica Mountains, coastal sage scrub is mostly of the type termed "Venturan Coastal Sage Scrub." 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.

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<sup>45</sup> 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 and included in the September 2002 staff report for the Malibu LCP.

<sup>46</sup> 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), 2<sup>nd</sup> Interface Between Ecology and Land Development in California, U.S. Geological Survey Open-File Report 00-62.

<sup>47</sup> 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.

<sup>48</sup> 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.

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, lemonade berry, 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<sup>49</sup>, 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 Santa Monica Mountains. 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, 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 Santa Monica Mountains, coastal sage scrub and chaparral provide that function. Significant development in coastal sage scrub would reduce the riparian corridors to linear islands of habitat with severe edge effects<sup>50</sup>, 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 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.

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

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<sup>49</sup> 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.

<sup>50</sup> 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.

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distributed from the San Francisco Bay area to Mexico<sup>51</sup>. 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."<sup>52</sup>

Coastal sage scrub in southern California provides habitat for about 100 rare species<sup>53</sup>, many of which are also endemic to limited geographic regions<sup>54</sup>. In the Santa Monica Mountains, rare animals that inhabit coastal sage scrub<sup>55</sup> 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<sup>56</sup>. 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<sup>57</sup>. A total of 32 sensitive species of reptiles, birds and mammals have been identified in this community by the National Park Service.<sup>58</sup>

One of the most important ecological functions of coastal sage scrub in the Santa Monica Mountains 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

<sup>51</sup> Westman, W.E. 1981. Diversity relations and succession in Californian coastal sage scrub. *Ecology* 62:170-184.

<sup>52</sup> Ibid.

<sup>53</sup> 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 Sage Scrub (CSS) Natural Communities Conservation Plan (NCCP). CDFG and Calif. Resources Agency, 1416 9<sup>th</sup> St., Sacramento, CA 95814.

<sup>54</sup> Westman, W.E. 1981. op. cit.

<sup>55</sup> 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.

<sup>56</sup> 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.

<sup>57</sup> 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.

<sup>58</sup> NPS, 2000, op cit.

fire. Several CSS species (e.g., *Eriogonum cinereum*) in the Santa Monica Mountains 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.<sup>59</sup> 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.<sup>60</sup> Losses since that time have been significant and particularly severe in the coastal zone.

Therefore, because of its increasing rarity, its important role in the functioning of the Santa Monica Mountains Mediterranean ecosystem, and its extreme vulnerability to development, coastal sage scrub within the Santa Monica Mountains meets the definition of ESHA under the Coastal Act.

#### 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<sup>61</sup>. 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<sup>62</sup>. On average, chaparral is found in wetter habitats than coastal sage scrub, being more common at higher elevations and on north facing slopes.

The broad category "northern mixed chaparral" is the major type of chaparral shown in the National Park Service map of the Santa Monica Mountains. However, northern mixed chaparral can be variously 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<sup>63</sup>. The rare red shank chaparral plant community also occurs in the Santa Monica Mountains. Although included within the category "northern mixed chaparral" in

<sup>59</sup> Dr. John O'Leary, SDSU, personal communication to Dr. John Dixon, CCC, July 2, 2002

<sup>60</sup> Westman, W.E. 1981. op. cit.

<sup>61</sup> Dr. Stephen Davis, Pepperdine University. Presentation at the CCC workshop on the significance of native habitats in the Santa Monica Mountains. June 13, 2002.

<sup>62</sup> 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.

<sup>63</sup> Ibid.

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<sup>64</sup>.

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<sup>65</sup>. 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.<sup>66</sup>

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 Santa Monica Mountains 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<sup>67</sup>. 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 Santa Monica Mountains.

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

<sup>64</sup> Ibid.

<sup>65</sup> 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.

<sup>66</sup> Ibid.

<sup>67</sup> 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.

penetrating the bedrock below<sup>68</sup>, so chaparral literally holds the hillsides together and prevents slippage.<sup>69</sup> In addition, the direct soil erosion from precipitation is also greatly 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<sup>70</sup>. Thus, the erosion from a 2-inch rain-day event drops from 5 yd<sup>3</sup>/acre of soil one year after a fire to 1 yd<sup>3</sup>/acre after 4 years.<sup>71</sup> 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 <sup>3</sup> /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, chaparral within the Santa Monica Mountains meets the definition of ESHA under the Coastal Act.

#### Oak Woodland and Savanna

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, coffeeberry, and poison oak. Coast live oak woodland is more

<sup>68</sup> 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.

<sup>69</sup> 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.

<sup>70</sup> 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 Santa Monica Mountains. (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.

<sup>71</sup> Ibid.



tolerant of salt-laden fog than other oaks and is generally found nearer the coast<sup>72</sup>. Coast live oak also occurs as a riparian corridor species within the Santa Monica Mountains.

Valley oaks are endemic to California and reach their southern most extent in the Santa Monica Mountains. Valley oaks were once widely distributed throughout California's perennial grasslands in central and coastal valleys. Individuals of this species may survive 400-600 years. Over the past 150 years, valley oak savanna habitat has been drastically reduced and altered due to agricultural and residential development. The understory is now dominated by annual grasses and recruitment of seedlings is generally poor. This is a very threatened habitat.

The important ecosystem functions of oak woodlands and savanna are widely recognized<sup>73</sup>. These habitats support a high diversity of birds<sup>74</sup>, and provide refuge for many species of sensitive bats<sup>75</sup>. 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 their important ecosystem functions and vulnerability to development, oak woodlands and savanna within the Santa Monica Mountains met the definition of ESHA under the Coastal Act.

#### Grasslands

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

#### California Perennial Grassland

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

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<sup>72</sup> NPS 2000. op. cit.

<sup>73</sup> 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.

<sup>74</sup> 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

<sup>75</sup> 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.

and substrate factors<sup>76</sup>. Mixed with these native needlegrasses are many non-native annual species that are characteristic of California annual grassland<sup>77</sup>. Native perennial grasslands are now exceedingly rare<sup>78</sup>. In California, native grasslands once covered nearly 20 percent of the land area, but today are reduced to less than 0.1 percent<sup>79</sup>. The California Natural Diversity Database (CNDDDB) lists purple needlegrass habitat as a community needing priority monitoring and restoration. The CNDDDB 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 where they are intermingled with coastal sage scrub, chaparral and oak woodlands.

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<sup>80</sup>.

Therefore, because of their extreme rarity, important ecosystem functions, and vulnerability to development, California native perennial grasslands within the Santa Monica Mountains meet the definition of 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

<sup>76</sup> 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.

<sup>77</sup> 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.

<sup>78</sup> 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.

<sup>79</sup> NPS 2000. op. cit.

<sup>80</sup> NPS 2000. op. cit.

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<sup>81</sup>, 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.

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.

### **Effects of Human Activities and Development on Habitats within the Santa Monica Mountains**

The natural habitats of the Santa Monica Mountains are highly threatened by current development pressure, fragmentation and impacts from the surrounding megalopolis. The developed portions of the Santa Monica Mountains represents the extension of this urbanization into natural areas. About 54% of the undeveloped Santa Monica Mountains are in private ownership<sup>82</sup>, and computer simulation studies of the development patterns over the next 25 years predict a serious increase in habitat fragmentation<sup>83</sup>. 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.

#### **Increased Fire Frequency**

Since 1925, all the major fires in the Santa Monica Mountains have been caused by human activities<sup>84</sup>. Increased fire frequency 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 a Coastal Commission

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<sup>81</sup> Holstein, G. 2001. Pre-agricultural grassland in Central California. *Madrono* 48(4):253-264. Stromberg, M.R., P. Kephart and V. Yadon. 2001. Composition, invasibility and diversity of coastal California grasslands. *Madrono* 48(4):236-252.

<sup>82</sup> 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.

<sup>83</sup> 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.

<sup>84</sup> NPS, 2000, op. cit.

Workshop stated<sup>85</sup> *"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 forbs 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.

#### Fuel Clearance

The removal of vegetation for fire protection in the Santa Monica Mountains is required by law in "Very High Fire Hazard Severity Zones"<sup>86</sup>. Fuel removal is reinforced by insurance carriers<sup>87</sup>. 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<sup>88</sup> around the home. The combination of insurance incentives and regulation assures that the 200-foot clearance zone will be applied universally<sup>89</sup>. 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<sup>90</sup>. While the directly impacted area is large, the effects of fuel modification extend beyond the 200-foot clearance area.

#### 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, wren-tit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, California towhee) and 3) urban-associated species

<sup>85</sup> 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.

<sup>86</sup> 1996 Los Angeles County Fire Code Section 1117.2.1

<sup>87</sup> Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. 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.

<sup>88</sup> Fuel Modification Plan Guidelines. Co. of Los Angeles Fire Department, Fuel Modification Unit, Prevention Bureau, Forestry Division, Brush Clearance Section, January 1998.

<sup>89</sup> Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024.

<sup>90</sup> Ibid.

(mourning dove, American crow, Western scrub-jay, Northern mockingbird)<sup>91</sup>. 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<sup>92</sup>.

#### 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<sup>93</sup>. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat<sup>94</sup>. 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<sup>95</sup>. 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 long-evolved native ant-plant mutualisms<sup>96</sup>. 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

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<sup>91</sup> 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.

<sup>92</sup> 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.

<sup>93</sup> 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.

<sup>94</sup> 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.

<sup>95</sup> 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.

<sup>96</sup> 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.

predator species are seen and more exotic arthropod species are present than in undisturbed habitats<sup>97</sup>.

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.<sup>98</sup> 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<sup>99</sup>.

#### 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<sup>100</sup>. 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<sup>101</sup>.

#### **Summary**

In a past action, the Coastal Commission found<sup>102</sup> that the Santa Monica Mountains Mediterranean Ecosystem, which includes the undeveloped native habitats of the Santa Monica Mountains, is rare and especially valuable because of its relatively pristine

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<sup>97</sup> Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.

<sup>98</sup> Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. *Nature* 413:635-639.

<sup>99</sup> 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.

<sup>100</sup> Longcore, T and C. Rich. 2002. Protection of environmentally sensitive habitat areas in proposed local coastal plan for the Santa Monica Mountains. The Urban Wildlands Group, Inc., P.O. Box 24020 Los Angeles, CA 90024.

<sup>101</sup> Ibid, and Ecological Consequences of Artificial Night Lighting, Conference, February 23-24, 2002, UCLA Los Angeles, California.

<sup>102</sup> Revised Findings for the City of Malibu Local Coastal Program (as adopted on September 13, 2002) adopted on February 6, 2003.

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character, physical complexity, and resultant biological diversity. The undeveloped native habitats within the Santa Monica Mountains 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 the native habitats in the Santa Monica Mountains was emphasized nearly 20 years ago by the California Department of Fish and Game<sup>103</sup>. Commenting on a Draft Land Use Plan for the City of Malibu, 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 chaparral (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."

This analysis by the Department of Fish and Game is consonant with the findings of the Commission in the case of the Malibu LCP, and with the conclusion that large contiguous areas of relatively pristine native habitat in the Santa Monica Mountains meet the definition of ESHA under the Coastal Act.

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<sup>103</sup> Letter from F. A. Worthley, Jr. (CDFG) to N. Lucast (CCC) re Land Use Plan for Malibu dated March 22, 1983.

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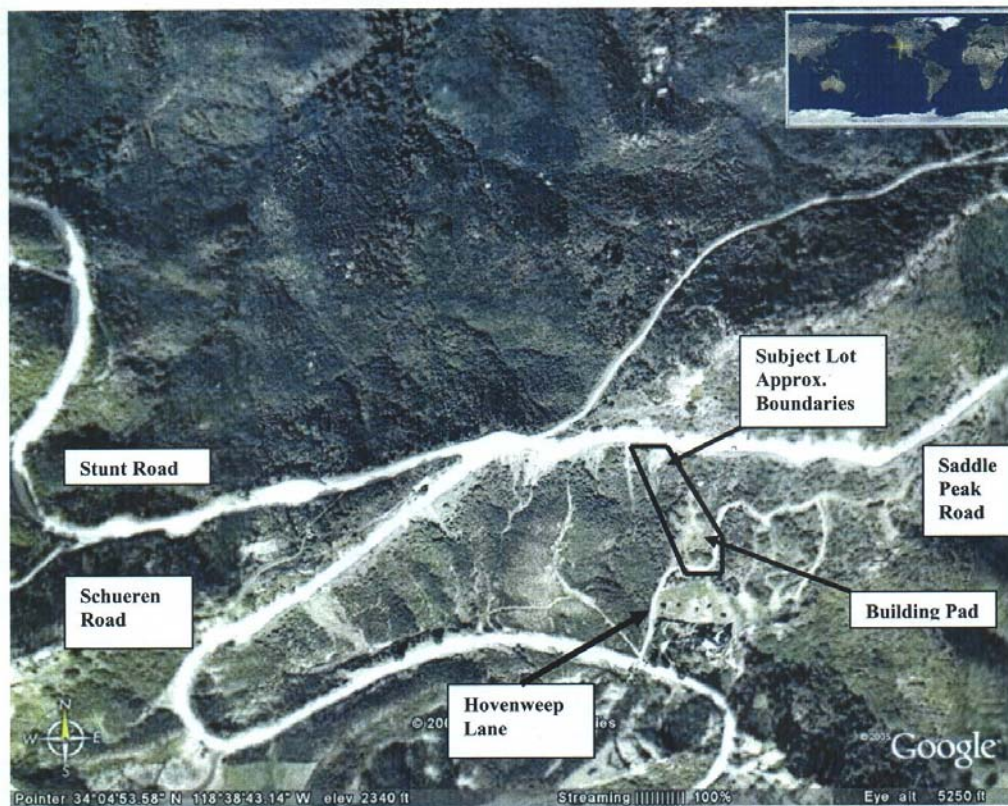


Exhibit 15  
App. No. 4-07-014  
2007 Aerial  
Photograph





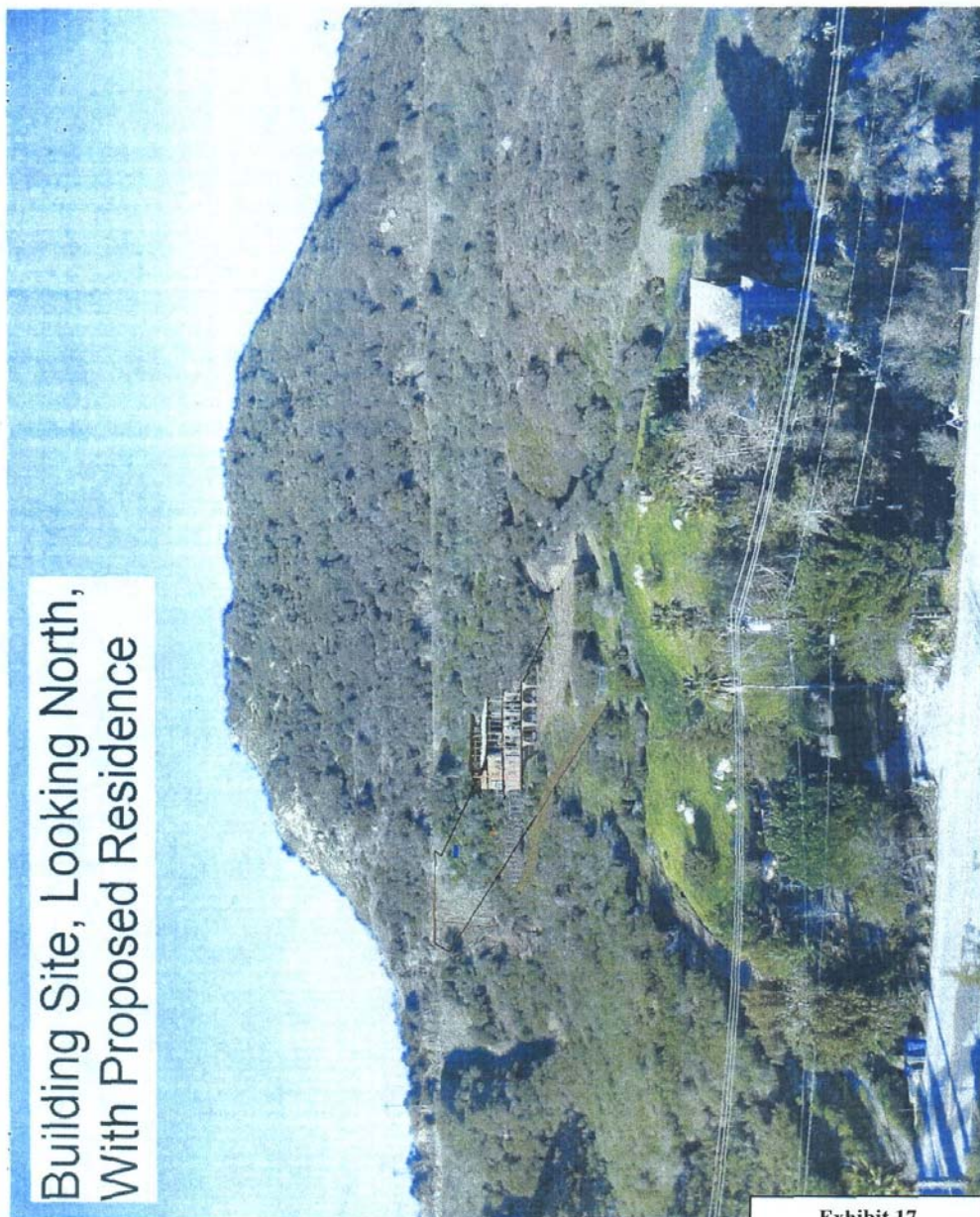
A. Disturbed Grassland



B. *Ceanothus megacarpus* Chaparral

SITE PHOTOS

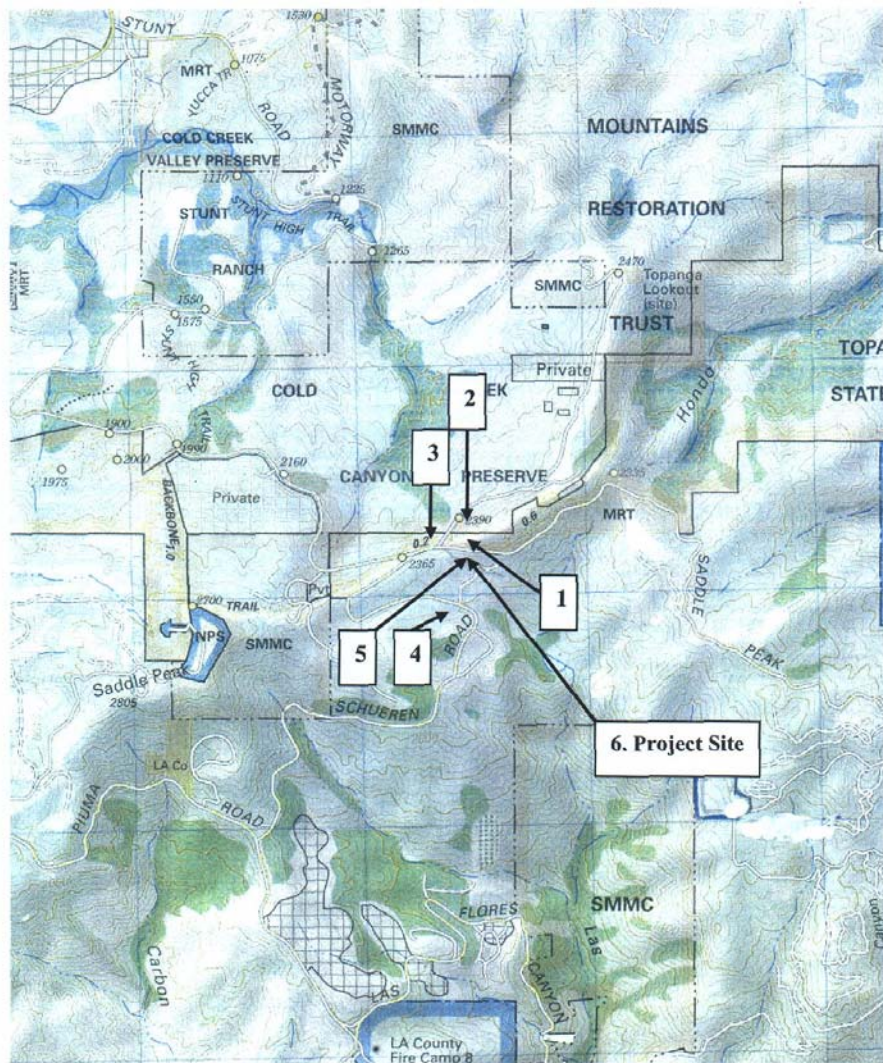
Exhibit 16  
Appl. No. 4-07-014  
Site Vegetation  
Photos



Building Site, Looking North,  
With Proposed Residence

Exhibit 17  
Appl. No. 4-07-014  
Applicant's Photo of  
Site With Proposed  
Residence





Proposed Single Family Residence, below grade Garage level, is cut at 2293 elevation, top of 3<sup>rd</sup> floor loft roof peak is at 2340 foot elevation.

1. View of SFR from Saddle Peak Road at 2372 foot elevation located about 160 feet from SFR. SFR roof peak is about 32 feet below viewsite.
2. View of SFR from Backbone Trail at 2340 foot elevation located about 300 feet from SFR. SFR roof peak is about 60 feet below viewsite.
3. View of SFR from intersection of Schueren, Stunt, and Saddle Peak Roads at elevation 2373 feet located about 700 feet from SFR. SFR roof peak is about 33 feet below from viewsite.
4. View of SFR from viewsite at Schueren Road's intersection with Hovenweep Lane at elevation 2214 feet. View of SFR roof peak is about 126 ft above viewsite located about 560 feet from SFR.
5. View of SFR from NPS property immediately west of residence at 2290 elevation which is located 43 feet from proposed structure. SFR roof peak is about 50 ft. above this viewsite as the base of the garage is sited on top of 15 ft of earth as viewed from this location.
6. View of SFR's South Elevatoin from Hovenweep Lane at SE corner of lot.

Exhibit 18  
Appl. No. 4-07-014  
Viewsite Analysis &  
Public Lands & Trails



1. View to South of Proposed Residence from Saddle Peak Road



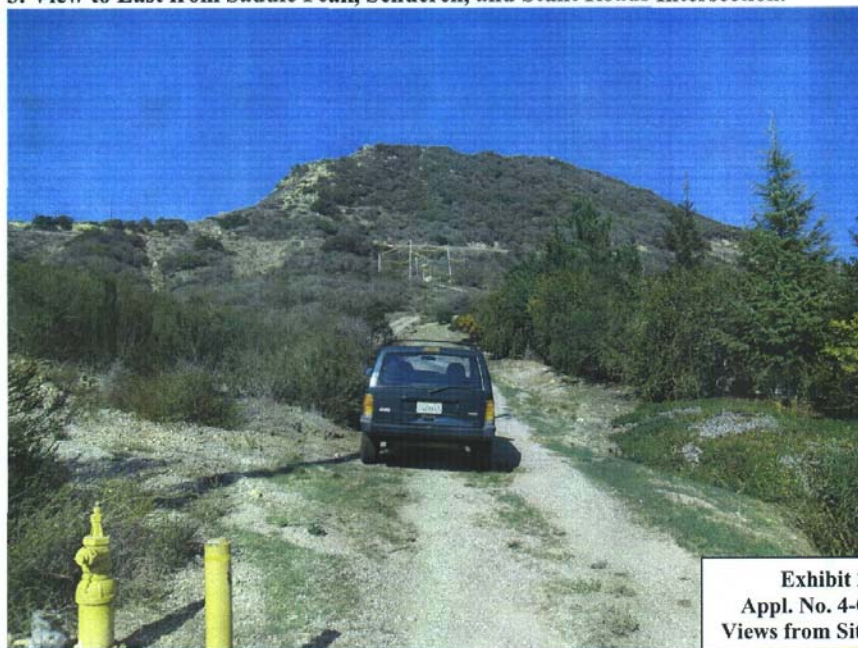
Exhibit 19  
Appl. No. 4-07-014  
Views from Sites 1  
and 2

2. View to South of Proposed Residence from Back Bone Trail above Saddle Peak Rd.





3. View to East from Saddle Peak, Schueren, and Stunt Roads Intersection.



4. View to North from Schueren Road and Hovenweep Lane Intersection.

Exhibit 20  
Appl. No. 4-07-014  
Views from Sites 3 & 4



5. View to East from adjacent NPS land.

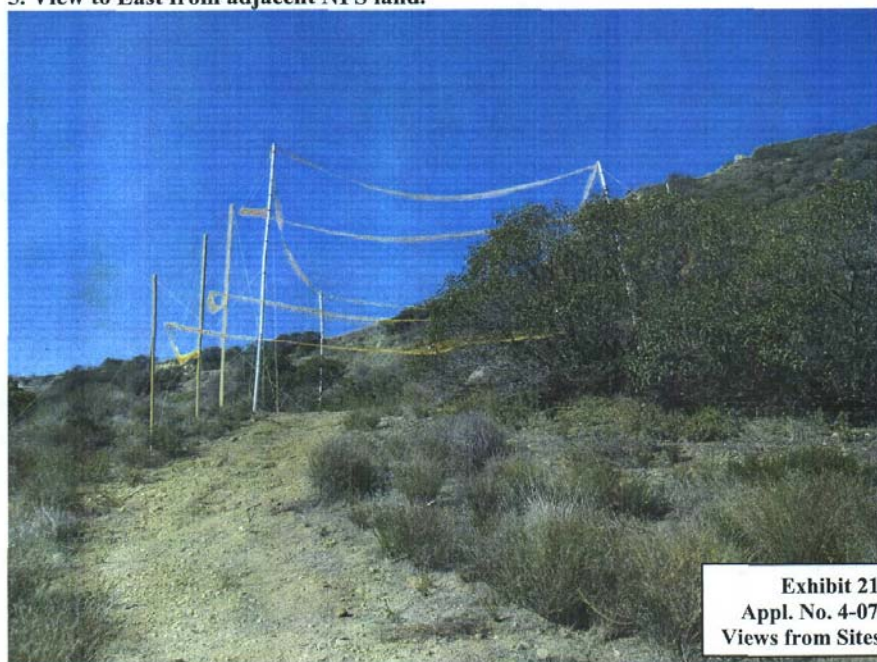


Exhibit 21  
Appl. No. 4-07-014  
Views from Sites 5 & 6

6. View to Northwest from Hovenweep Lane & Southern Portion of Subject Lot.





Los Angeles County  
Department of Regional Planning  
*Planning for the Challenges Ahead*



James E. Hartl, AICP  
Director of Planning

November 2, 2006

TO: Property Owners

SUBJECT: SANTA MONICA MOUNTAINS LOCAL COASTAL PROGRAM  
REVISED MAP OF TRAILS

Dear Property Owner:

The Los Angeles County Department of Regional Planning released for public review the Public Hearing Draft of the Santa Monica Mountains Local Coastal Program on August 24, 2006. The LCP is required by state law and will regulate development within the Coastal Zone. We are writing to inform you that Map 4 - Recreation of the Santa Monica Mountains Coastal Zone Plan (page CO-36) has been revised to reflect the latest trail alignments proposed by the County Department of Parks and Recreation. The updated map identifies a segment of a proposed trail on your property that was not included on the map released on August 24<sup>th</sup>. The segment is shown on the attached map.

The Draft LCP includes a provision requiring the Director of Planning to request that a development avoid encroaching upon mapped trails shown on Map 4 - Recreation of the Coastal Zone Plan, if the development is subject to a ministerial approval. Ministerial approval refers to projects that require an administrative coastal development permit and may be approved by the Director without a public hearing. If the property owner wishes to site their development on a mapped trail, the Director will coordinate with the owner and the Department of Parks and Recreation to move the alignment of a trail.

The Draft LCP also proposes that as a condition of approval for new development subject to discretionary approval, property owners will record a trails easement for any publicly-used trail or trail depicted on Map 4 that exists on their property. Discretionary approval refers to projects that require a minor or major coastal development permit and must be approved by the hearing officer or Regional Planning Commission with a public hearing.

If you have any questions or concerns, please feel free to contact me or Clement Lau at (213) 974-6422. Our office is open Monday through Thursday from 7:00 am to 6:00 pm; the office is closed on Friday.

Sincerely,

DEPARTMENT OF REGIONAL PLANNING  
Bruce W. McClendon, FAICP  
Director of Planning

Gina M. Natoli, AICP  
Supervising Regional Planner

Attachment

320 West Temple Street • Los Angeles, CA 90012 • 213-974-6411 • Fax: 213-626-0434 • TDD: 213-617-2292

Exhibit 22  
Appl. No. 4-07-014  
LA Co. LCP  
Revised Tuna  
Canyon Trail  
Letter 11/2/2006

