STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
OUTH CALIFORNIA ST., SUITE 200
TURA, CA 93001
(805) 585 - 1800



Filed: 11/25/02
180th Day: 5/24/03
Staff: J Johnson
Staff Report: 4/23/03
Hearing Date: 5/9/03
Commission Action:

## STAFF REPORT: REGULAR CALENDAR

**APPLICATION NO.:** 4-02-110

**APPLICANT:** Jai Pal Khalsa

**PROJECT LOCATION:** 22345 Swenson Drive, Topanga, Los Angeles County

**PROJECT DESCRIPTION:** Construct a two story, 28 ft. high, 5,000 sq. ft. single family residence with attached 1,020 sq. ft. three car garage, detached studio (750 sq. ft.) over a Garage (450 sq. ft.), a caretaker's house (1,200 sq. ft.) with attached garage (400 sq. ft.), pool and spa with 144 sq. ft. gazebo, water well and storage tank, two septic systems, retaining walls, temporary construction trailer and mobile home, paved driveway to residence, paved driveway to caretaker house, a horse riding ring and corrals located within fuel modification zone, a 375 sq. ft. barn/shade structure, grade 650 cubic yards of cut and 650 cubic yards of fill for residence flat pad area, 260 cubic yards of cut for driveway (after the fact approval), 2,415 cubic yards of cut and 2,414 cubic yards of fill for two erosional features and rebuild the hillside at a 2:1 slope from Swenson Drive to the access driveway, 780 cubic yards of cut for caretaker house, 850 cubic yards of cut for caretaker residence driveway and turnaround area, 110 cubic yards of cut for barn/shade structure, and 500 cubic yards of cut for horse ring area, 120 cubic yards of cut for geologic and septic work, totaling 8,750 cubic yards of grading. In addition, the applicant is requesting after-the-fact approval for grading and vegetation removal for geologic testing. The project includes restoration and revegetation of two areas on the subject parcel where unpermitted vegetation removal and grading occurred for geologic testing (approximately 1.23 acres) and the after the fact expansion of two existing dirt roadways leading north on the southern most parcel. The project also includes a proposal to construct 6 foot high deer fence around residence, studio, orchard and garden, landscaping, voluntarily offer to dedicate a 10 – 20 foot wide trail easement to provide public access for the Tuna Canyon Trail, provide landscaping along Swenson Drive to screen the house from the new trail, and create a conservation deed restriction on the adjacent 10 acre parcel to the north to limit development and provide for natural open space.

Lot areas:

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| Southern Res. Dev. | 10 acres |
| Northern Open Space | 10 acres |
| Building coverage: | 6,869 sq. ft. |
| Residence & Garage | 3,900 sq.ft. |
| Gazebo | 144 sq. ft. |
| Studio/Garage | 850 sq. ft. |
| Caretaker & Garage | 1,600 sq. ft. |
| Barn/shade structure | 375 sq. ft. |
| Pavement coverage: | 18,700 sq. ft. |

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| Residence | 7700 sq. ft. |
| Caretaker | 11,000 sq. ft. |
| Proposed bldg pad total: | 17,050 sq. ft. |
| Residence & garage: | 13,000 sq. ft. |
| Studio/Garage | 850 sq. ft. |
| Caretaker house: | 2,800 sq. ft. |
| Barn/shade struct. | 400 sq. ft. |
| Gazebo, pool, & spa area | (included in residence) |
| Ht. abv. fin. grade: | 12 - 28 ft. |
| Max. Ht. Abv, ext. grade: | 35 ft. |
| Parking spaces: | 6 spaces |
| Plan Designation: | Rural Land I, II & III |
| Zoning | 1 dwelling unit/5 acres, /10 acres, & 20/acres |
| Project density: | 1 dwelling unit/10 acres |

## SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed project with 16 Special Conditions addressing 1) Plans Conforming to Geologic Recommendations, 2) Landscaping, Erosion Control and Fuel Modification Plans, 3) Removal of Natural Vegetation, 4) Assumption of Risk, Waiver of Liability and Indemnity, 5) Future Development Restriction, 6) Color Restriction, 7) Lighting Restriction, 8) Deed Restriction, 9) Drainage and Polluted Run-Off Control Plan, 10) Pool and Spa Drainage and Maintenance, 11) Removal of Construction Trailer and Mobile Home, 12) Open Space Restriction, 13) Public Access Trail Offer to Dedicate Easement, 14) Native Vegetation Restoration Plan, 15) Habitat Impact Mitigation and 16) Condition Compliance. The proposed project, as conditioned, is consistent with all applicable policies of the Coastal Act

The project site is located in upper Topanga area within the Santa Monica Mountains of Los Angeles County. The subject site includes two separate ten-acre parcels located in an area partially developed with residences approximately 2 miles inland of the coastline along the eastern ridge of Las Flores Canyon where Swenson Drive and Little Las Flores Road meet, south of Saddle Peak Road. Swenson Drive, Little Las Flores Road. The majority of these two parcels include an historic landslide feature on the site. The proposed project is clustered and located just beyond this landslide area in an area adjacent to Swenson Road. A portion of the subject site is situated on an ascending slope on the north side of Swenson Drive, ascending towards Saddle Peak. The balance of the site descends west towards Las Flores Canyon. Given the location of the project site it will be visible from Las Flores Canyon to the west and south where public lands owned by the Santa Monica Mountains Conservancy and the Santa Monica Mountains National Recreation Area and the planned Tuna Canyon Trail proposed to bisect these parcels from Swenson Road. There is one oak tree located on the site; it is not in the area of proposed development. The applicant has voluntarily offered to create an open space conservation deed restriction on the northernmost ten-acre parcel adjoining the ten-acre parcel on which this development is proposed. In addition, the applicant is voluntarily offering to dedicate a trail easement for a segment of the Tuna Canyon Trail from Swenson Road along the southern boundary of the developing parcel and the western boundary of both parcels to access the adjoining public lands owned by the Santa Monica Mountains Conservancy and to access the Backbone Trail along Saddle Peak Road.

**STAFF NOTE**

Due to Permit Streamlining Act Requirements the Commission must act on this permit application at the May 6 - 9, 2003 meeting.

**LOCAL APPROVALS RECEIVED**: Approval in Concept (PP47935), Los Angeles County Regional Planning Department, dated 5/8/02; Lot Line Adjustment approval (LLA101984), Department of Public Works, dated 8/2/02; Drainage and Grading Approval in Concept, Los Angeles County Building and Safety, dated 3/7/02; Septic Approval in Concept, Los Angeles County Health Department, dated 5/10/02; Los Angeles County Fire Department "Coastal Commission Approval Only", dated 5/14/02 and (Preliminary Fuel Modification Plan, dated 9/20/02); Water Well Approval Los Angeles County Department of Health Services, dated 5/10/02.

**SUBSTANTIVE FILE DOCUMENTS**: Coastal Permit Nos. 4-03-10, 4-03-11, and 4-03-12 (Merrill, Lewinson & Canyon View, Inc.), Botanical Inventory, dated October 12, 2002 by Steve Williams; Visual Analysis, Photos and Project Scale Model, submitted September 20, 2002 by Jai Pal Khalsa; Engineering Geologic Report, by Subsurface Designs, dated 4/8/2002; Addendum #1: Response to County of Los Angeles Review Sheet dated October 15, 2002 by SubSurface Designs, Inc.; Geotechnical Engineering Investigation by Coastline Geotechnical Consultants, Inc., dated 4/22/02.

## I. STAFF RECOMMENDATION

**MOTION:** I move that the Commission approve Coastal Development Permit No. 4-02-110 pursuant to the staff recommendation.

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permits 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 PERMITS:**

The Commission hereby approves the Coastal Development Permits 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 permits 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 permits are not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of these permits and acceptance of the terms and conditions, is returned to the Commission office.

**2. Expiration.** If development has not commenced, these permits 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(s) must be made prior to the expiration date.

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

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

**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 RECOMMENDATION

**PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval by the Executive Director, evidence of the consultants review and approval of all project plans. All recommendations contained in the Addendum. I: Preliminary Engineering Geologic Investigation, by Subsurface Designs, dated 4/8/02; Geotechnical Investigation by Coastline Geotechnical Consultants Inc., dated 4/22/02; Drainage and Grading Approval in Concept, Los Angeles County Building and Safety, dated 3/7/02, shall be incorporated into all final design and construction plans including drainage, sewage disposal, grading, foundations, retaining walls, floor slabs, excavation erosion control, and excavations. All plans must be reviewed and approved by the engineering geologist, engineer and the geotechnical engineering consultants as conforming to these recommendations.

The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission relative to construction, grading and drainage. Any substantial changes to the proposed development approved by the Commission, which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

## 2. LANDSCAPE EROSION CONTROL AND FUEL MODIFICATION PLANS

**PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit final landscaping, prepared by a licensed landscape architect or a qualified resource specialist, and erosion control/drainage plans prepared by a licensed engineer for review and approval by the Executive Director. The final landscaping and erosion control/drainage plans shall be reviewed and approved by the consulting engineering geologist to ensure that the plans are in conformance with the consultants' recommendations. The final plans shall incorporate the following criteria:

### A) Landscaping and Erosion Control Plans

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. Invasive, non-indigenous plan species, which tend to supplant native species, shall not be used. Within the 100 foot radius of the fuel modification area surrounding the main residence, studio and caretaker residence, non-native orchards, gardens, and vineyards may be planted using agricultural production methods that do not use pesticides and minimizes the use of fertilizers.

   All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils. The landscape plan shall be designed with vertical elements to partially screen and soften the visual impact of the structures with trees and shrubs as viewed from public lands located to the south and west including those owned by the Santa Monica Mountains Conservancy and Santa Monica Mountains National Recreation Area and the proposed public trail, the Tuna Canyon Trail rerouted to the southeast, south and southwest of the project site. Once the temporary construction trailer and mobile home is removed from the site these areas will be regraded to match the natural landform contour and revegetated with native plants within 30 days of the removal of these temporary structures.

2) 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.

3) 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

4) Vegetation within 100 feet of the proposed residence, garage, studio, and caretakers residence may be removed to mineral earth, vegetation within a 200-foot radius of the main structure may be selectively thinned in order to reduce fire hazard. No vegetation clearing surrounding the proposed fire-resistant barn is allowed. However, such thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The final 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 final fuel modification plan, as revised has been reviewed and approved by the Los Angeles County Fire Department, Forestry Division, Fire Prevention Bureau. Any irrigated lawn, turf and ground cover planted within the fifty foot radius of the proposed residence, garage, studio and caretakers residence shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.

5) The final drainage/erosion control plan shall be implemented within 30 days of completion of final grading; By acceptance of this permit, the applicant agrees to maintain the drainage devices on a yearly basis in order to ensure that the system functions properly. Should the devices fail or any erosion result from the drainage from the project, the applicant or successor in interests shall be responsible for any necessary repairs and restoration.

**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 should grading take place during the rainy season (November 1 - March 31) the applicant shall install or construct temporary sediment basins (including debris basins, de-silting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geo-fabric covers or other appropriate cover, install geo-textiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained through out 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 the coastal zone or to a site within the coastal zone 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 geo-textiles 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**

Five (5) years from the date of completion of the proposed development, 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 assesses the on-site landscaping and certifies whether it 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.

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 these permits, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The supplemental landscaping plan must be prepared by a licensed landscape architect or 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. The permittee shall implement the remedial measures specified in the approved supplemental landscape plan.

**3. REMOVAL OF NATURAL VEGETATION**

Removal of natural vegetation for the purpose of fuel modification within the 100-foot zone surrounding the proposed structures 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 100-200 foot fuel modification zone shall not occur until commencement of construction of the structures approved pursuant to this permit.

**4. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY**

By acceptance of this permit; the applicant acknowledges and agrees (i) That the site maybe subject to hazards from earthquakes, landslides, ground movement, or wildfire; (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 Commissions 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. FUTURE DEVELOPMENT RESTRICTION**

This permit is only for the development described in Coastal Development Permit No.4-02-110. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), and 13253 (b)

(6), the exemptions otherwise provided in Public Resources Code Section 30610 (a) and (b) shall **not** apply to the entire property. Accordingly, any future improvements to the entire property, including but not limited to the residence, garage, studio, caretakers residence and barn, gazebo, and clearing of vegetation, fencing, gates, or grading other than as provided for in the approved fuel modification landscape and erosion control plan prepared pursuant to Special Condition Number Two (2), shall require an amendment to Permit No.4-02-110 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

## 6. COLOR RESTRICTION

**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, including the water tank authorized by the approval of coastal development, permit 4-02-110. The palette samples shall be presented in a format not to exceed 8 1/2" X 11" X ½" in size. The palette shall include the colors proposed for the all of the roofs, trims, exterior surfaces, retaining walls, water tank, or 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, galvanized steel, and no bright tones. All windows shall be comprised of non-glare glass.

The approved structures shall be colored 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 4-02-110 if such changes are specifically authorized by the Executive Director as complying with this special condition.

## 7. LIGHTING RESTRICTION

**A.** The only outdoor night lighting allowed on the subject parcel are limited to the following to minimize night time intrusion of light and disruption of wildlife traversing this area at night within this rural area:

1. The minimum necessary to light walkways used for entry and exit to the structures, including parking areas and driveways, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use incandescent bulbs that do not exceed 60 watts, or energy efficient bulbs such as compact florescent that do not exceed a 12 watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.

2. Security lighting attached to the residence, garage, studio, caretakers residence and gazebo that is controlled by motion detectors is limited to incandescent bulbs that do not exceed 60 watts, or energy efficient bulbs such as compact florescent that do not exceed a 12 watt rating, or bulbs generating the equivalent amount of Lumens, unless a higher wattage is authorized by the Executive Director.

3. The minimum lighting necessary for safe vehicular use of the driveway. That lighting shall be limited to incandescent bulbs that do not exceed 60 wafts, or energy efficient bulbs such as compact florescent That do not exceed a 12-watt rating, or bulbs generating the equivalent amount of lumens, unless a higher wattage is authorized by the Executive Director.

**B.** No lighting on the remainder of the two parcels, including the slopes and flat areas, and no lighting for aesthetic purposes is allowed.

## 8. 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 a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to these permits, 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 (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of these permits as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the applicant's entire parcel or parcels. 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.

## 9. DRAINAGE AND POLLUTED RUNOFF CONTROL PLAN

***Prior to the issuance of the Coastal Development Permit No.*** 4-02-110, 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 stormwater from each runoff event, up to and including the 85$^{th}$ percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor, 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 30th 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 amendment(s) or new Coastal Development Permit(s) are required to authorize such work.

## 10. POOL AND SPA DRAINAGE AND MAINTENANCE

***Prior to issuance of the Coastal Development Permit***, the applicant shall submit, for review and approval of the Executive Director, a written pool and spa maintenance plan, that contains an agreement to install and use a no chlorine or low chlorine purification system and a program to maintain proper pH, calcium and alkalinity balance in a manner that any runoff or drainage from the pool or spa will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat area. In addition, the plan shall, at a minimum: 1) prohibit discharge of chlorinated pool water and 2) prohibit discharge of chlorinated or non-chlorinated pool water into a street, storm drain, creek, canyon, drainage channel, or other location where it could enter receiving waters. The Permittee shall undertake development and maintenance in compliance with this pool and spa maintenance agreement and program approved by the Executive Director. No changes shall be made to the agreement or plan unless they are approved by the Executive Director.

## 11. REMOVAL OF TEMPORARY CONSTRUCTION TRAILER AND MOBILE HOME

With the acceptance of this coastal permit, the applicants agree that the temporary residential trailer and mobile home on the site shall be removed within two years of the issuance of this coastal development permit or within thirty (30) days of the applicants 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 a temporary residential trailer.

## 12. OPEN SPACE RESTRICTION

In order to implement the applicant's voluntary proposal for an open space conservation restriction over the northern ten-acre parcel as part of this project description, the applicant as landowner agrees to complete the following prior to issuance of the permit: the landowner shall execute and record a document that restricts this subject parcel as follows:

A. No development, as defined in section 30106 of the Coastal Act or grazing, or agricultural activities shall occur on APN 4448-024-006 as described and depicted in

an Exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit. The following development, if approved by the Coastal Commission as an amendment to this coastal development permit or a new coastal development permit may occur:

***Construction of a public hiking and equestrian trail, trail signs, and planting of native vegetation.***

B. **PRIOR TO ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT**, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, a formal legal description and graphic depiction of the portion of the subject property affected by this condition, as generally described above and shown on Exhibit 4 attached to this staff report.

**13. PUBLIC ACCESS TRAIL OFFER TO DEDICATE EASEMENT**

In order to implement the applicant's voluntary proposal of an offer to dedicate a public access hiking and equestrian trail easement over that portion of the subject property planned for the Tuna Canyon Trail as part of this project description, the applicant as landowner agrees to complete the following prior to issuance of the permit: the landowner shall execute and record a document, irrevocably offering to dedicate to a public agency or private association approved by the Executive Director an easement for a ten (10') foot wide strip of land commencing at Swenson Drive and southerly property line and proceeding westerly three hundred and fifty feet (350') then widening to fifty (50') feet as a trail corridor continuing to proceed westerly to the southwest property corner, then north, fifty (50') feet wide as a trail corridor, along both parcels (APN 4448-024-006 and 007) and terminating at the north property line. Within this fifty (50') foot wide trail corridor a five to ten (5' to 10') foot wide trail will be located, the exact location to be determined by Los Angeles County Park and Recreation Department and/or the accepting public agency or private association approved by the Executive Director, prior to construction as generally depicted in Exhibits 22 and 23.

In addition, in order to connect the applicant's northerly end of the proposed Tuna Canyon Trail reroute with the northerly end of the County's planned route the applicant shall offer to dedicate this connection between the applicant's proposed trail reroute segment and the County's planned trail segment end (if any is required) on the applicant's northernmost parcel

The dedicated trail easement shall not be open for public hiking and equestrian usage until a public agency or private association approved by the Executive Director agrees to accept responsibility for maintenance and liability associated with the trail easement. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, including the applicant, prior to the acceptance of the offer, to interfere with any rights of public access acquired through use that may exist on the property. The irrevocable offer shall be of a form and content approved by the Executive Director, free of prior encumbrances except for tax liens, providing the public the right to pass and repass over the noted route limited to hiking and equestrian uses only. The offer shall run with the land in

favor of the State of California binding successors and assigns of the applicant or landowner. The offer of dedication shall be irrevocable for a period of 21 years, such period running from the date of the recording. The recording document shall include legal descriptions of both the applicant's entire parcel and the easement area.

## 14. NATIVE VEGETATION RESTORATION / REVEGETATION PLAN

**PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of restoration / revegetation plans. The plan shall include a grading plan, prepared by a licensed civil engineer to restore the two areas on the subject parcel where vegetation removal and grading occurred (about 1.23 acres) to the contours existing prior to the vegetation removal and grading and including the removal of one of the two dirt roadways leading north on the southern most parcel. The plan shall also include a landscaping and erosion control plan, including an irrigation plan, prepared by a qualified habitat restoration consultant. The landscaping and erosion control plan shall be reviewed and approved by the consulting civil engineer to ensure that the plan is in conformance with the applicable recommendations regarding slope stability. The restoration and revegetation plan shall include, but not be limited to, the following criteria:

(a) A detailed grading plan, prepared by a licensed professional civil engineer, that illustrates remedial grading to restore the slope to the contours existing prior to the removal of the vegetation and grading including the addition of top soil. The plan shall include temporary erosion control measures such as geofabrics, silt fencing, sandbag barriers, or other measures to control erosion until revegetation of the restored slope is completed. These erosion control measures shall be required on the project site prior to and concurrent with the initial grading operations and shall be maintained throughout the process to minimize erosion and sediment to runoff waters during construction. All sediment shall be removed to an appropriate disposal site, approved by the Executive Director, either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

(b) A revegetation program, prepared by a qualified habitat restoration consultant with credentials acceptable to the Executive Director, that utilizes only native plant species that have been obtained from local Santa Monica Mountains genetic stock, and are consistent with the surrounding native plant community. Native seeds shall be collected from areas as close to the restoration site as possible. The plan shall specify the preferable time of year to carry out the restoration and describe the supplemental watering requirements that will be necessary, including a detailed irrigation plan. The plan shall also specify performance standards to judge the success of the restoration effort. The revegetation plan shall identify the species, location, and extent of all plant materials and shall use a mixture of seeds and container plants to increase the potential for successful revegetation. The plan shall include a description of technical and performance standards to ensure the successful revegetation of the restored slope. A temporary irrigation system may be used until the plants are established, as determined by the habitat restoration consultant, and as approved by the consulting civil engineer, but in no case shall the

irrigation system be in place longer than two (2) years. The restored area shall be planted within thirty (30) days of completion of the remedial grading operations.

(c) The restoration plan shall be implemented within ninety (90) days of the issuance of this permit. Revegetation shall provide ninety percent (90%) coverage within five (5) years and shall be repeated, if necessary, to provide such coverage. The Executive Director may extend this time period for good cause. Plantings shall 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 the revegetation requirements.

(d) A monitoring program, prepared by a qualified environmental resource specialist. The monitoring program shall demonstrate how the approved revegetation and restoration performance standards prepared pursuant to section (b) above shall be implemented and evaluated for compliance with this Special Condition. The program shall require the applicants to submit, on an annual basis for a period of five years (no later than December 31$^{st}$ each year), a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, indicating the success or failure of the restoration project. The annual reports shall include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards listed in the restoration plan. These reports shall also include photographs taken from pre-designated locations (annotated to a copy of the site plans) indicating the progress of recovery. During the monitoring period, all artificial inputs shall be removed except for the purposes of providing mid-course corrections or maintenance to ensure the long-term survival of the plantings. If these inputs are required beyond the first four (4) years, then the monitoring program shall be extended for a sufficient length of time so that the success and sustainability of the project is ensured. Successful site restoration shall be determined if the revegetation of native plant species on-site is adequate to provide ninety percent (90%) coverage by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation.

(e) At the end of the five year period, a final detailed report shall be submitted, for the review and approval of the Executive Director, that indicates whether the on-site landscaping is in conformance with the revegetation / restoration plan approved pursuant to this Special Condition. The final report shall include photographic documentation of plant species and plant coverage. If this report indicates that the restoration project has in part, or in whole, been unsuccessful, based on the approved performance standards, the applicants shall be required to submit a revised or supplemental restoration program to compensate for those portions of the original plan that were not successful. The revised, or supplemental, restoration program shall be processed by the applicant/landowner as an amendment to this Coastal Development Permit.

## 15. 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 habitat that are "environmentally sensitive habitat area" (ESHA), that will be disturbed by the proposed development, including by 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 adjacent parcel boundaries if the fuel modification/brush clearance zones extend onto adjacent property. 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. 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 ESHA from the proposed development and fuel modification 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 area. The habitat restoration area may either be onsite or offsite within the coastal zone in the City of Malibu or 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 agrees to the restoration work, maintenance and monitoring required by this condition and agrees 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. A 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 amendment to the coastal development permit for an alternative mitigation program.

The habitat restoration plan shall be implemented 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 owner of the habitat restoration area shall execute and record a 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 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 issuance of the coastal development permit, the applicant shall execute and record an open space deed restriction in a form and content acceptable to the Executive Director, over a 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.

**C. Habitat Impact Mitigation Fund**

Prior to the issuance of the coastal development permit, the applicant 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 Santa Monica Mountains Conservancy to mitigate adverse impacts to chaparral habitat. The fee shall be based on the cost per acre to restore or create comparable habitat type, and the acreage of habitat affected. The fee shall be used for the acquisition or permanent preservation of chaparral habitat in the Santa Monica Mountains coastal zone.

**16. CONDITION COMPLIANCE**

Within 120 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the expiration of this coastal permit approval and the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

## IV. Findings and Declarations

The Commission hereby finds and declares:

### A. Project Description

The applicant proposes to construct a two story, 28 ft. high, 5,000 sq. ft. single family residence with attached 1,020 sq. ft. three car garage, detached studio (750 sq. ft.) over a Garage (450 sq. ft.), a caretaker's house (1,200 sq. ft.) with attached garage (400 sq. ft.), pool and spa with 144 sq. ft. gazebo, water well and storage tank, two septic systems, retaining walls, temporary construction trailer and mobile home, paved driveway to residence, paved driveway to caretaker house, a horse riding ring and corrals located within fuel modification zone, a 375 sq. ft. fire resistant barn/shade structure, grade 650 cubic yards of cut and 650 cubic yards of fill for residence flat pad area, 260 cubic yards of cut for driveway (as completed), 2,415 cubic yards of cut and 2,414 cubic yards of fill for two erosional features and rebuild the hillside at a 2:1 slope from Swenson Drive to the access

driveway, 780 cubic yards of cut for caretaker house, 850 cubic yards of cut for caretaker residence driveway and turnaround area, 110 cubic yards of cut for barn/shade structure, and 500 cubic yards of cut for horse ring area, 120 cubic yards of cut for geologic and septic work, totaling 8,750 cubic yards of grading. In addition, the applicant is requesting after-the-fact approval for grading and vegetation removal for geologic testing. The project includes restoration and revegetation of two areas on the subject parcel where unpermitted vegetation removal and grading occurred for geologic testing (approximately 1.23 acres) and the after the fact expansion of two unpermitted dirt roadways leading north on the southern most parcel. The project also includes a proposal to construct 6 foot high deer fence around residence, studio, orchard and garden, landscaping, voluntarily offer to dedicate a 10 – 20 foot wide trail easement to provide public access for the Tuna Canyon Trail, provide landscaping along Swenson Drive to screen the house from the new trail, and create a conservation deed restriction on the adjacent 10 acre parcel to the north to limit development and provide for natural open space (Exhibits 1 - 13). The proposed 2,415 cubic yards of cut and 2, 415 cubic yards of fill grading noted above to fill two erosional features and rebuild the hillside at a 2:1 slope from Swenson Drive to the access driveway will fill the existing abandoned road cut, created when the original Swenson Drive was built. This filled roadway and adjacent erosional features are proposed to be restored and replanted with native plants (Exhibit 14).

The subject parcels consist of two adjacent 10-acre parcels accessed from Swenson Drive and Rockview Terrace, two private roads, which are accessed from Saddle Peak Road, a public road. These parcels located in the Topanga Area are vacant, include an historic landslide feature, and covered with chaparral vegetation, except for existing dirt roads and 'unpermitted' grading and vegetation clearance completed in 2002 (Exhibits 1 and 15). From Swenson Drive the project site ascends northerly about 30 feet in height at an average gradient of 2:1 to the location of the future main residence building pad, and then continues to ascend northerly for along gradients ranging from 2:1 to 1 ½:1. Slopes descend westerly from the western margin of the proposed main residence and studio building pad location for about 300 feet in height at an average gradient of 2:1 towards Las Flores Canyon. The proposed caretaker residence and barn building pads are located in a moderately sloping area south of the proposed building pads for the main residence and studio. The subject two parcels drain southwest into Las Flores Canyon Creek, a blue line stream located beyond these parcels. The parcels are bisected by a dirt road also known as Boyd Road in a north to south direction from Swenson Road, constructed prior to 1977. The Tuna Canyon Trail (Exhibit 16) is planned along this route by the Los Angeles County Park and Recreation Department but does not exist according to the Tom Harrison Santa Monica Mountains East Trail Map, dated 2001 (Exhibit 17).

The subject parcels include relatively undisturbed chaparral vegetation, except for about 1.23 acres of vegetation cleared and existing dirt roads widened and graded in 2002 without the benefit of a coastal permit. In response to staff requests for a botanical inventory of the subject parcel proposed for development (southern parcel) and an identification of these "as graded' areas, the applicant submitted a report titled: Botanical Inventory, dated October 12, 2002 by Steve Williams, Conservation Biologist (Exhibit 18 and 19). This report provided a survey of the site conditions, existing alterations and identified the chaparral and coastal

sage scrub species by plant name and photographs. This chaparral and coastal sage scrub is considered environmentally sensitive habitat area (ESHA).

The Malibu/Santa Monica Mountains Land Use Plan designates the subject parcel as a combination of Rural Land I, II, and Mountain Land, one dwelling unit per ten acres and five acres and twenty acres respectively.

## B. Project History and Background

The Commission approved a Permit Waiver (Coastal Permit Waiver No. 4-02-109-W) in October 2002 to adjust the lot line between the southern most subject ten acre parcel and the adjoining parcel to the east to provide a larger area, beyond the onsite landslide feature, for the residential development.

Initially the applicant submitted on May 9, 2002, a site plan with the proposed two story 5,500 sq. ft. residence and three car garage on a 16,000 sq. ft. building pad, a two story 1,500 sq. ft. studio, two two-car garages, a pool, gazebo, water well, septic system, construction trailer/mobile home, a riding ring and corrals, and a total of 11,202 cubic yards of grading on the southern ten-acre parcel. In response to staff request that the proposed grading be minimized and itemized, the applicant submitted a revised grading plan on June 25, 2002 reducing the proposed grading to 7,341 cubic yards of material for the same proposed project which included hillside and road cut restoration in the vicinity of the proposed main residence. Staff continued to request that the proposed grading be minimized and that the estimated 14,000 sq. ft. building pad be reduced to 10,000 sq. ft. or less. After further consultation regarding the proposed development of the subject ten-acre parcel and a second adjoining ten-acre parcel owned by the applicant, the applicant provided on March 26, 2003 a creative and revised proposal to construct the same proposed residence and three car garage on a smaller building pad estimated at 13,000 sq. ft., a 750 sq. ft. studio with a two-car 45 sq. ft. garage located below, a 1,200 sq. ft. caretakers house with attached 400 sq. ft. garage and a small barn with a horse riding ring and corrals all located within the fuel modification area of the main residence and studio. The applicant reduced the grading to a total of 8,750 cubic yards of material including 4,830 cubic yards of material to cut and fill two erosional features (Exhibits 2, 3, and 14). In addition the applicant voluntarily offered to create an open space deed restriction on the vacant ten-acre parcel to the north (Exhibit 20) and provide a relocated public trail that currently bisects both parcels as planned by the Los Angeles County Park and Recreation Department to a location along the southern boundary of the southernmost parcel. However, the applicant did not provide for an extension of this trail dedication to continue along the western boundary of these two parcels along a route that would end up near the northern most portion of this planned trail. Staff requested the applicant discuss a possible trail re-routing with the staff of the Los Angeles County Park and Recreation Department in mid March 2003. The applicant proposed to reroute only a portion of this trail on the subject southern parcel along its southern property boundary and continue the re-route along an undefined route on the adjoining property located to the west owned by the Santa Monica Mountains Conservancy (Exhibit 17). Discussions with the adjoining property owner, the Santa Monica Mountains Conservancy, and the Los Angeles County Park and Recreation Department were begun in April 2003 regarding this proposed trail relocation. Staff requested the applicant to provide a written response from these two

agencies confirming whether or not these agencies have accepted the applicant proposed trail re-route. Staff received a memo on April 16, 2003 (Exhibit 21) from Paul Edelman, Santa Monica Mountains Conservancy, suggesting that a site visit was necessary to review and respond to this issue. Due to the time deadline under the Permit Streamlining Act for processing this application, this trail re-route issue cannot be fully resolved prior to completing this report. In response, the applicant revised the project description to include a revised voluntary public trail easement dedication along the southern boundary of the south ten acre parcel proposed for development and along the western property boundary on the two ten acre parcels as described below:

> TUNA CANYON TRAIL EASEMENT DEDICATION – A ten (10') foot wide strip of land commencing at Swenson Drive and the southerly property line and proceeding westerly three hundred and fifty feet (350') then widening to fifty feet (50') and proceeding westerly to the southwest property corner, then north, fifty feet (50') wide along both properties and terminating at the north property lines, for a ten to twenty (10' to 20') foot wide trail within this trail corridor, the exact location to be determined prior to construction (Exhibits 22 and 23).

Any updated information on this public trail issue will be provided to the Commission at the May 9, 2003 Commission meeting.

## C. 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 reservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.***

In the review of this project, the Commission reviews the publicly accessible locations where the proposed development is visible to assess potential visual impacts to the public. The Commission examines the building site, the proposed grading, and the size of the building pad and structures and alternatives to minimize landform alteration. The development of the residence, garage, studio and garage, caretakers residence and garage, barn, gazebo, retaining walls and water storage tank raises two issues regarding the siting and design: one whether or not public views from public roadways will be adversely effected; or, two whether or not public views from public trails will be effected.

The subject site is located in a partial residentially developed area, with two developed parcels located immediately to the east and additional residentially developed parcels completed or under various stages of construction located to the east and southeast of the subject site. The applicant provided a visual analysis documenting the visibility of the

subject building site from numerous locations suggested by staff where this site is visible from public roads. Although the building site is located along a descending ridgeline well below a designated significant ridgeline along Saddle Peak in the Malibu/Santa Monica Mountains, a review of this visual analysis concludes that the project will not be readily visible from public roadways located to the west, south, or east due to the substantial intervening distance.

However, the proposed development will be highly visible from a planned public trail as the proposed development is located adjacent to this trail, the Tuna Canyon Trail, which bisects both ten-acre parcels and traverses along Swenson Road, a private road, to the south (Exhibits 16 and 23). As a result, public views from this planned public trail will be adversely affected by the proposed development. As a partial response to this potential visual impact, the applicant has voluntarily offered to dedicate a partial relocation of this trail so it will be relocated along the southern property boundary of the southern most parcel and along the western boundary of both of the applicants' parcels. However, the Santa Monica Mountains Conservancy and the Los Angeles County Park and Recreation Department have not confirmed whether or not this proposed rerouting of the trail is acceptable. This issue is further discussed below in the public access section. The building sites will also be visible from public lands located to the south and west within Las Flores Canyon area.

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 and restored areas reduces the adverse effects 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 landscape plan will be designed with vertical elements to partially screen and soften the visual impact of the proposed structures with trees and shrubs as viewed from the adjoining public trail located to the southeast, south, and west of the project site and the public lands located to the south and west of this site.

Within areas of the Santa Monica Mountains with chaparral and coastal sage scrub which is considered ESHA, the Commission has required, through past permit actions, that development be clustered on a lot and the building pad size not exceed 10,000 sq. ft. as measured from the top of the cut slope to the bottom of the fill slope, excluding the size of the necessary fire truck hammerhead turnaround area, to minimize impacts on this sensitive habitat and the surrounding watershed. In his case, the applicant has worked with staff to reduce the proposed grading and landform alteration while increasing the proposed building pad footprints for four structural developments including the main residence and garage, studio and garage, caretaker residence and garage, and a barn. This increase in number of building pad footprints and their combined size estimated to be about 17,050 sq. ft. is balanced with the applicants voluntary offer to provide an open space conservation easement on the adjoining northernmost ten-acre parcel and offer a rerouting of the planned Tuna Canyon Trail on the applicant's parcels. The Tuna Canyon Trail is now proposed by the Los Angeles County Park and Recreation Department to bisect these subject two parcels. In effect, the applicant is foregoing the potential development of a second 10,000 sq. ft. building pad and second large residence on the northernmost parcel proposed for the open space conservation dedication and the offer for the re-routed trail

easement as a tradeoff to allow additional development on the southern most parcel. The applicant originally proposed an approximate 15,000 sq. ft. building pad area for the proposed residence and garage and a separate approximate 800 sq. ft. pad for the proposed studio. The applicant revised the plans to reduce the pad size for the residence and garage to about 13,000 sq. ft., retained a revised 850 sq. ft. pad size for the reduced size 750 sq. ft. studio with a 450 sq. ft. garage below, while adding two additional building pads for the caretaker residence/garage and the barn, all totaling about 17,050 sq. ft. for these four building pads clustered in the southwest corner of the southern most ten-acre parcel. Therefore the proposed landform alteration together with the applicant's proposed voluntary open space conservation dedication on the adjoining parcel and the offer of the public trail easement, as modified below in the public access section, has minimized the landform alteration on the subject two parcels.

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 areas and roads and cleared areas on the subject site and add adequate top soil fill to regrade graded areas, results in restoring the area to reduce the adverse effects of erosion, which can degrade visual resources in addition to causing siltation pollution in ESHA's, and soften the appearance of development within areas of high scenic quality. The landscape plan will be designed with vertical elements to partially screen and soften the visual impact of the proposed structures with trees and shrubs as viewed from the relocated trail and Swenson Road as proposed by the applicant both which are located to the south and west of the project site.

The applicants are required to submit a Landscape and Fuel Modification Plan and a Habitat Restoration Plan that uses numerous native species compatible with the vegetation associated with the project site for landscaping and erosion control purposes. Furthermore, both plans will include native plants that are less flammable consistent with those identified in the "Recommended List of Native Plants for Landscaping in the Santa Monica Mountains", by the California Native Plant Society, dated February 5, 1996. The Landscape and Fuel Modification Plan will indicate 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 that are located within a 200' radius of the residential structure are to "thinned" rather than "cleared" for wildland fire protection. The vegetation located within 20 feet of the structure and the driveway may be cleared and replaced with native plant species that are less flammable. As required by **Special Condition Number Two**, the graded and disturbed areas on the building site will be replanted with native plants. Also as required by **Special Condition Number Two**, the landscape plan will be designed with vertical elements to partially screen and soften the visual impact of the structures with trees and shrubs as viewed from the planned public trail located to the south along Swenson Drive and west and northwest of the project site. In order to ensure that the applicant's proposal to restore portions of the site where unpermitted grading and vegetation occurred is implemented, **Special Condition Number Fourteen** will provide for a Native Vegetation Restoration Plan to re-grade and add adequate topsoil to provide for the replanting of native vegetation removed without a coastal permit and in addition remove, regrade with top soil and replant one of the two roads leading from the building site area north on the southern most ten acre parcel (completed prior to effective date of Coastal Act but regarded and

widened in 2002 without a coastal permit). These cleared and graded areas to be restored are identified on Exhibits 4 and 18 (including the removal and restoration of one of the two dirt roadways leading north on the southern most parcel).

In addition, in order to ensure that the structural appearance, i.e. color of the main residence, garage, studio/garage, caretaker residence/garage, barn, gazebo, roofs, retaining walls, and water storage tank and the potential glare of the glass windows, will not create adverse visual impacts from the public trail, the Commission finds it necessary to require the applicant to use colors compatible with the colors found in the surrounding area for exterior materials of the proposed structure and non-glare glass for all proposed windows as required by **Special Condition Number Six**. In addition, **Special Condition Number Seven** requires that night lighting, if any, shall be the minimum necessary for lighting, directed downward, be of low intensity, at low height and shielded; security lighting, if any, shall be controlled by motion detector to avoid creating adverse night time visual impacts. 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 lighting and security lighting controlled by a motion detector will assist in minimizing the disruption of wildlife traversing this area at night that are commonly found in this rural and relatively undisturbed area. Finally, regarding future developments or improvements, certain types of development to the property, normally associated with a single-family and caretaker residences, which might otherwise be exempt, have the potential to impact scenic and visual resources in this area. It is necessary to ensure that any future development or improvements normally associated with the entire property, which might otherwise be exempt, is reviewed by the Commission for compliance with the scenic resource policy, Section 30251 of the Coastal Act. **Special Condition Number Five,** the Future Development Restriction, will ensure that the Commission will have the opportunity to review future projects for compliance with the Coastal Act. Finally, **Special Condition Number Eight** 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 subject properties and provides any prospective purchaser with recorded notice that the restrictions are imposed on the subject property.

Therefore, the Commission finds that the project, as conditioned, minimizes adverse effects to public views to and along the coast and minimizes the alternation of natural landforms. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30251 of the Coastal Act.

## D. Hazards and Geologic Stability

The proposed development is located in the Malibu/Santa Monica Mountains area, 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

The applicant has submitted three reports entitled, Engineering Geologic Report, by Subsurface Designs, dated 4/8/2002; Addendum #1: Response to County of Los Angeles Review Sheet dated October 15, 2002 by SubSurface Designs, Inc.; Geotechnical Engineering Investigation by Coastline Geotechnical Consultants, Inc., dated 4/22/02. These reports identified massive ancient landslide debris to depths exceeding 60 feet across a majority of the southern ten-acre parcel. The southeastern portion of this parcel is the only area located beyond this landslide debris where the applicant proposes to construct the proposed structures. The majority of the northern ten-acre parcel is also overlain by this landslide debris except for the northern most portion of this parcel. The Engineering Geologic Report, by Subsurface Designs, dated 4/8/2002 concludes that:

> **It is the finding of this firm that the proposed residence will not be affected by settlement, land sliding, or slippage. Further, the aforementioned development and grading will not have an adverse effect on off-site property.**

The engineering geologic and geotechnical consultants conclude that the proposed developments are feasible and will be free from geologic hazard provided their recommendations are incorporated into the proposed development. These reports included several recommendations to be incorporated into project construction, design, drainage, foundations and sewage disposal to ensure the stability and geologic safety of the proposed project site and adjacent property. To ensure that the recommendations of the consultant have been incorporated into all proposed development the Commission, as specified in **Special Condition Number One,** requires the applicant to submit project plans certified by the consulting geotechnical engineer as conforming to all structural and site stability recommendations for the proposed projects. Final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission. Any substantial changes to the proposed developments, as approved by the Commission, which may be recommended by the consultant shall require an amendment to the permit or a new coastal development permit.

The Commission finds that controlling and diverting run-off in a non-erosive manner from the proposed structures, impervious surfaces, and building pad will minimize erosion and add to the geologic stability of the project sites. To ensure that adequate drainage and erosion control are included in the proposed developments the Commission requires the applicant to submit drainage and interim erosion control plans certified by the consultants, as specified in **Special Condition Number Two and Nine.**

The Commission also finds that landscaping of graded and disturbed areas on the subject site will serve stabilize disturbed soils, reduce erosion and thus enhance and maintain the geologic stability of the site. Therefore, **Special Condition Number Two** 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 Number Two** also requires the applicant to utilize and maintain native and noninvasive plant species compatible with the surrounding area for landscaping the project sites.

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 as required by Special Condition Number Two.

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 No. Three**. 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 No. Three** 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.

Due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from earthquakes, landslides, and ground movement, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through **Special Condition No. Four**, the applicant acknowledges the nature of this hazard which exists on the site and which may affect the safety of the proposed development.

The Commission finds that the proposed projects, as conditioned, will serve to minimize potential geologic hazards of the project site and adjacent properties.

**Wild Fire**

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.

Due to the fact that the proposed projects are 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**, the wildfire waiver of liability, the applicant acknowledges 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 No. Four**, the applicant also agrees 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 projects.

For the reasons set forth above, the Commission finds that, as conditioned, the proposed projects are consistent with Section 30253 of the Coastal Act.

## E. Environmentally Sensitive Habitat

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.***

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, Sections 30107.5 and 30240 of the Coastal Act state that environmentally sensitive habitat areas must be protected against disruption of habitat values. Therefore, when considering any area, such as the Santa Monica Mountains, with regard to an ESHA determination one must focus on three main questions:

1) Is a habitat or species rare?
2) Is the habitat or species especially valuable because of its special nature or role in the ecosystem?
3) Is the habitat or species easily disturbed or degraded by human activities and developments?

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 second 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 the memo "Designation of ESHA in the Santa Monica Mountains, dated March 25, 2003 by John Dixon (Exhibit 24), 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[1].

For any specific property within the Santa Monica Mountains, it is necessary to meet three tests in order to assign the ESHA designation. First, is the habitat properly identified, for example as coastal sage scrub or chaparral? Second, is the habitat undeveloped and

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

otherwise relatively pristine? Third, is the habitat part of a large, contiguous block of relatively pristine native vegetation?

Commission staff visited the subject property on October 2, 2002 with the applicant and the applicant's consulting conservation biologist. Staff confirmed that the majority of these two parcels consists primarily of chaparral vegetation with a small area of native bunchgrass and one oak tree. Although a large portion of this chaparral vegetation is undisturbed, about 1.23 acres (of the total 10 acre southern parcel) has been cleared and a portion of this graded in addition to widening some of the existing dirt roadways and grading a new short driveway access from Swenson Road in 2002, all completed without a coastal permit. This vegetation is part of a large contiguous area of chaparral habitat that extends relatively undisturbed to the north, west and south of the subject property and somewhat disturbed to the east as a result of recent residential development.

The applicant submitted a report titled: "Botanical Inventory for 22345 Swenson Drive" dated October 12, 2002, by Steve Williams, Conservation Biologist (Exhibits 18 and 19). This report surveys the current site conditions and vegetation specifically identifying the plant species as chaparral, native bunch grass and one oak tree. This report concludes that with conditions addressing erosion control, fuel mod plan, temporary construction trailer and mobile home removal, among others, mitigation for project impacts will be provided. The report also notes that every effort should be made to revegetate disturbed areas susceptible to sedimentation impacts for Las Flores Creek. The designation of habitat types follows Holland (1986) and the list given in the NPS General Management Plan & Environmental Impact Statement for the Malibu/SMM area. Therefore, due to the important ecosystem roles of chaparral in the Santa Monica Mountains (detailed in Exhibit 24), and the fact that the subject site is relatively undisturbed and part of a large, unfragmented block of habitat, the Commission finds that the chaparral on the subject property meets the definition of ESHA under the Coastal Act.

Commission staff has worked extensively with the applicant to reduce and revise the footprint of development and site disturbance, and significantly reducing the alteration of natural landform on the property. Originally, the applicant was proposing a larger development area that exceeded 10,000 sq. ft. pad limitation the Commission has required through permit actions in the Cold Creek Significant Watershed Area and other chaparral ESHA in the Santa Monica Mountains. Through past permit actions, the Commission has limited the development area for residential development in ESHA to a maximum development area of 10,000 square feet in order to cluster development and minimize the adverse impacts to ESHA from fuel modification requirements. The applicant originally proposed about 16,000 sq. ft. pad size for the main residence and garage with a large studio and two additional garages on the southern ten acre parcel with 11,202 cubic yards of grading. Staff requested that the proposed grading be minimized and that the estimated 14,000 sq. ft. building pad be reduced to 10,000 sq. ft. or less. After further consultation regarding the proposed development of the subject ten-acre parcel and a second adjoining ten-acre parcel owned by the applicant, the applicant provided on March 26, 2003 a creative and revised proposal to construct the same proposed residence and three car garage on a smaller building pad estimated at 13,000 sq. ft., a 750 sq. ft. studio with a two-car 450 sq. ft. garage located below, a 1,200 sq. ft. caretakers house with attached 400 sq. ft. garage and a small barn with

a horse riding ring and corrals all located within the fuel modification area of the main residence and studio structures. The applicant reduced the grading to a total of 8,750 cubic yards of material including 4,830 cubic yards of material to cut and fill two erosional features. In addition the applicant voluntarily offered to create an open space deed restriction on the vacant ten-acre parcel to the north and provide a relocated public trail that currently bisects both parcels as planned by the Los Angeles County Park and Recreation Department to a location along the southern boundary of the southernmost parcel. However, the applicant at that time did not provide for an extension of this trail dedication to continue along the western boundary of these two parcels along a route that would end up near the northern most portion of this planned trail. Staff requested the applicant discuss a possible trail re-routing with the staff of the Los Angeles County Park and Recreation Department and the Santa Monica Mountains Conservancy, the adjoining property owner to the west. In response, the applicant revised the project description to include a revised voluntary public trail easement dedication along the southern boundary of the south ten acre parcel proposed for development and along the western property boundary on the two ten acre parcels as described above and illustrated in Exhibits 22 and 23).

In effect, the applicant proposed to construct a main residence and garage, a studio and garage, a caretaker residence and garage, and a fire resistant barn on one parcel. This proposal with two residences and a studio on one parcel is allowable with an additional parcel with the proposed open space conservation easement precluding future residential development. It important to note that the proposal for a second residence for the caretaker, garage and a barn with a total of 3,200 sq. ft. for two building pads is substantially less than a 10,000 sq. ft. building pad on the second ten acre parcel. In addition, the applicant proposes to construct a 13,000 sq. ft. building pad for the main residence and garage and a studio/garage with a 850 sq. ft. building pad resulting in a total of 17,050 sq. ft. which is 7,050 sq. ft. beyond the maximum allowed 10,000 sq. ft. pad size. As proposed by the applicant, precluding this potential future development on a separate parcel with a residence and garage on a maximum 10,000 sq. ft. building pad with the offer of an open space conservation easement, this is a trade off for the larger building pad for the main residence, a pad for the studio/garage, a pad for the second residence (caretaker) and a pad for the barn for a total of 17,050 sq. ft size of building pads. **Special Condition No. Twelve** carries out the applicant's voluntary proposal for an open space conservation dedication over the northern ten-acre parcel as part of this project description. As a result, no development including grazing or agricultural activities on this parcel is allowed except for the construction of a public hiking and equestrian trail, trail signs, and planting of native vegetation with a Commission approved coastal development permit.

As noted above, the majority of these two parcels constitutes an environmentally sensitive habitat area (ESHA) pursuant to Section 30107.5. Section 30240 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 parcels to only those uses that are dependent on the resource. The applicant proposes to construct a single family residence, garage, studio and garage, caretaker residence and garage, and a barn on the parcel which will require the removal of chaparral ESHA as a result of fuel modification for fire protection purposes. As such residential development does not have to be located within ESHAs to

function, the Commission does not consider residential related development to be a use 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. 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 two properties in the late 1990s for approximately $200,000. The parcels were designated in the County's certified Land Use Plan in 1986 for residential use. Residential development has previously been approved on the subject parcels by the Commission and on other parcels in the vicinity that generally contained the same type of habitat as the applicant's parcel. At the time the applicant purchased the parcel, the County's certified Land Use Plan did not designate the vegetation on the site as ESHA. 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 parcels on which they would be able to build a residence.

The Commission finds that in this particular case, other allowable uses for the subject property, such as a recreational park or a nature preserve, are not feasible and would not provide the owner an economic return on the investment. The two parcels are each ten (10) acres, and are surrounded by other residentially developed parcels located to the east and south. Public parkland has been acquired by the Santa Monica Mountains Conservancy on lands adjacent and further south of this subject property. However, there is currently not an 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 on the southern parcel 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 these residential developments on the southern parcel 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 the applicant's proposed septic system, ensuring that the system 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 on the southern parcel 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 taking the property.

As discussed above, the proposed development will be approved within ESHA in order to provide an economically viable use. Siting and design alternatives have been considered in order to identify the alternative that can avoid and minimize impacts to ESHA to the greatest extent feasible, however, the majority of the southern parcel is overlain by a landslide feature. The applicant has increased the buildable area of the southeast portion of this parcel by completing a lot line adjustment moving additional land from the adjoining property located to the east to expand the area located beyond this landslide feature. However, given the location of ESHA on this parcel, there will still be significant impacts to ESHA resulting from the required fuel modification area around the approved development on this parcel. The following discussion of ESHA impacts from new development and fuel modification is based on the findings of the Malibu LCP[2]..

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:

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

Zone A (Setback Zone) is required to be a minimum of 20 feet beyond the edge of protected structures. In this area native vegetation is cleared and only ground cover, green lawn, and a limited number of ornamental plant species are allowed. This zone must be irrigated to maintain a high moisture content.

Zone B (Irrigated Zone) is required to extend from the outermost edge of Zone A to a maximum of 80 feet. In this area ground covers may not extend over 18 inches in height. Some native vegetation may remain in this zone if they are adequately spaced, maintained free of dead wood and individual plants are thinned. This zone must be irrigated to maintain a high moisture content.

Zone C (Thinning Zone) is required to extend from the outermost edge of Zone B up to 100 feet. This zone would primarily retain existing native vegetation, with the exception of high fuel species such as chamise, red shank, California sagebrush, common buckwheat and sage. Dead or dying vegetation must be removed and the fuel in existing vegetation reduced by thinning individual plants.

Thus, the combined required fuel modification area around structures can extend up to a maximum of 200 feet. If there is not adequate area on the project site to provide the required fuel modification for structures, then brush clearance may also be required on adjacent parcels. In this case, required fuel modification zone on this parcel will extend from the approved structures as generally shown on Exhibit 4, into chaparral ESHA.

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

Obviously, native vegetation that is cleared and replaced with ornamental species, or substantially removed and widely spaced will be lost as habitat and watershed cover. 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 habitat, the natural soil coverage of the canopies of individual plants provides shading and reduced soil temperatures. When these plants are thinned, the microclimate of the area will be affected, increasing soil temperatures, which can lead to loss of individual plants and the eventual conversion of the area to a dominance of different non-native plant species. The areas created by thinning between shrubs can be invaded by non-native grasses that will over time out-compete native species.

For example, undisturbed coastal sage scrub vegetation typical of coastal canyon slopes, and the downslope riparian corridors of the canyon bottoms, ordinarily contains a variety of

tree and shrub species with established root systems. Depending on the canopy coverage, these species may be accompanied by understory species of lower profile. The established vegetative cover, including the leaf detritus and other mulch contributed by the native plants, slows rainfall runoff from canyon slopes and staunches silt flows that result from ordinary erosional processes. The native vegetation thereby limits the intrusion of sediments into downslope creeks. Accordingly, disturbed slopes where vegetation is either cleared or thinned are more directly exposed to rainfall runoff that can therefore wash canyon soils into 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)[3]. 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[4].

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[5]. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat[6]. 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

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[3] 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.

[4] 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.

[5] 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.

[6] 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.

and its native ant food resources are diminished in areas near landscaped and irrigated developments[7]. 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[8]. 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[9].

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.[10] 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[11].

While these impacts resulting from fuel modification can be reduced through siting and designing alternatives for new development, they cannot be completely avoided, given the high fire risk and the location of ESHA on the subject parcel. 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 on the subject parcel. In this case, the ESHA area affected by the proposed development including the areas impacted by fuel modification or brushing is calculated as 7.3 acres less 2.04 acres of existing non ESHA areas consisting of existing roadways, totaling 5.26 acres for ESHA both on and offsite that will be impacted by the proposed development on this parcel.

In the certification of the Malibu LCP the Commission approved three methods for providing mitigation for the unavoidable loss of ESHA resulting from development, including habitat

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[7] 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.

[8] 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.

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

[10] Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. Nature 413:635-639.

[11] 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.

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 this parcel. There are three available options for mitigation for loss of chaparral habitat for compliance with **Special Condition No. Fifteen**. 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 No. Fifteen**, 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 No. Fifteen**, subpart B.

The third habitat impact mitigation option is an in-lieu fee for habitat conservation. The fee will be based on the habitat type(s) in question, the cost per acre to restore or create the comparable habitat type, and the acreage of habitat affected by the project. The fee shall be provided to the Santa Monica Mountains Conservancy for the acquisition or permanent preservation of natural habitat areas within the coastal zone. This mitigation method is provided for in **Special Condition No. Fifteen**, subpart C.

The applicant has offered to comply with this habitat mitigation by providing for an open space conservation easement on the northernmost parcel which will preclude any future residential development. It is calculated that a new residence with a 10,000 sq. ft. pad and access driveway with fuel modification and brush clearance will impact 5.25 acres of ESHA. As proposed by the applicant this parcel will not be developed and this 5.25 acres of ESHA will be protected through the open space conservation easement. With this protected acreage, there is only a difference of an additional 0.01 acres that is considered insignificant and no additional mitigation is needed.

The Commission has determined that in conjunction with siting new development to minimize impacts to ESHA, additional actions can be taken to minimize adverse impacts to ESHA. The Commission finds that the use of non-native and/or invasive plant species for residential landscaping results in both direct and indirect adverse effects to native plants species indigenous to the Malibu/Santa Monica Mountains area. Adverse effects from such landscaping result from the direct occupation or displacement of native plant communities by new development and associated non-native landscaping. Indirect adverse effects include offsite migration and colonization of native plant habitat by non-native/invasive plant species (which tend to outcompete native species) adjacent to new development. The Commission notes that the use of exotic plant species for residential landscaping has already resulted in significant adverse effects to native plant communities in the Malibu/Santa Monica Mountains

area. Therefore, in order to minimize adverse effects to the indigenous plant communities of the Malibu/Santa Monica Mountains area, **Special Condition No. Two** requires that all landscaping consist primarily of native plant species and that invasive plant species shall not be used.

The applicant has proposed to restore and revegetate the two areas, about 1.23 acres, where grading and native vegetation was removed for geologic and soil excavations and testing on the southern parcel. The applicant has also graded and widened two existing dirt roads leading north on the southern parcel in 2002 without the required coastal development permit. In order to carry out this part of the applicants project description to restore and revegetate these areas, and remove, re-grade with top soil and restore one of these dirt roadways, **Special Condition No. Fourteen** is required to be implemented. This restoration and revegetation plan shall include a grading plan, prepared by a licensed civil engineer to restore the two areas on the subject parcel where vegetation removal and grading occurred (about 1.23 acres) and restore one of the two dirt roads leading north to the contours existing prior to the vegetation removal and grading that occurred prior to the effective date of the Coastal Act and regarded and expanded in 2002. The plan shall also include a landscaping and erosion control plan, including an irrigation plan, prepared by a qualified habitat restoration consultant. The landscaping and erosion control plan shall be reviewed and approved by the consulting civil engineer to ensure that the plan is in conformance with the applicable recommendations regarding slope stability.

The Commission notes that streams and drainages, such as Las Flores Canyon Creek located about 1/3 mile south of the project site, provides important habitat for riparian 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 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. Sheet flow and minor drainages onsite transmits runoff directly beyond the subject parcel into La Flores Canyon Creek located 1/3 mile to the west as such, the Commission finds that potential adverse effects of the proposed development on riparian habitat of this stream 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 No. Nine**, the Drainage and Polluted Run-off 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, building pad area, and barn is conveyed off-site in a non-erosive manner and is treated/filtered to reduce pollutant load before it reaches coastal waterways.

In addition, 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. The subject site contains environmentally sensitive habitat. Therefore, **Special Condition No. Seven**, Lighting Restriction, 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 area at night that are commonly found in this rural and relatively undisturbed area. Thus, the proposed setback from the sensitive habitat area and natural topography in concert with the lighting restrictions will attenuate the impacts of unnatural light sources and will not impact sensitive wildlife species.

Furthermore, fencing of either ten acre parcels would adversely impact the movement of wildlife through the chaparral ESHA, except for fencing identified on the landscape plan surrounding the proposed structural development and the horse corral on the southern parcel. Therefore, the Commission finds it is necessary to limit fencing to the perimeter of Zone C of the fuel modification Plan as required in **Special Condition No. Two**.

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 No. Five**, the future development restriction, has been required. Finally, **Special Condition No. Eight** 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, and 30240 of the Coastal Act.

## F. 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.***

As described in detail in the previous sections, the applicant is proposing to develop the subject southern most parcel with a new single-family residence, garage, studio/garage, caretaker residence/garage, and a barn. The proposed building locations are located upslope from Las Flores Canyon Creek a stream that contains sensitive riparian habitat. The sites are considered a "hillside" development, as it involves sloping hillside terrain with soils that are susceptible to erosion.

The proposed developments will result in an increase in impervious surface at the subject sites, which in turn decreases the infiltrative function and capacity of existing permeable land on site. Reduction in permeable space therefore 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 developments 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 sites. 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.

For design purposes, with case-by-case considerations, post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate

safety factor (i.e., 2 or greater), for flow-based BMPs. The Commission finds that sizing post-construction structural BMPs to accommodate (infiltrate, filter or treat) the runoff from the 85th 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. Nine,** and finds this will ensure the proposed developments will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

In addition, the proposed projects are conditioned to also implement a pool and spa drainage and maintenance plan to prevent uncontrolled drainage of the proposed swimming pools and spas such that drainage of pool water does not result in discharge of chemically treated water to coastal streams and drainages. The pool and spa drainage and maintenance plan, as detailed in **Special Condition No. Ten** requires the applicant to submit a written pool and spa maintenance plan that contains an agreement to install and use a no chlorine or low chlorine purification system and a program to maintain proper pH, calcium and alkalinity balance in a manner such that any runoff or drainage from the pool or spa will not include excessive amounts of chemicals that may adversely affect water quality or environmentally sensitive habitat area. In addition, **Special Condition No. Ten** prohibits discharge of pool water into a street, storm drain, creek, canyon, drainage channel, or other location where it could enter receiving waters.

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 No. Two** is necessary to ensure the proposed developments will not adversely impact water quality or coastal resources.

Finally, the proposed development include the installation of an on-site private sewage disposal system to serve the residential structures. The applicant has submitted a Septic Approval in Concept from the Los Angeles County Health Department confirming that a sewage disposal system may be constructed on the subject parcel, determining that the systems meet the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of coastal resources.

For the reasons set forth above, the Commission finds that the proposed projects, as conditioned to incorporate and maintain a drainage and polluted runoff control plan, are consistent with Section 30231 of the Coastal Act.

## G. Public Access

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 the Santa Monica Mountains, a portion of an existing system of heavily used historic trails located on private property has been jeopardized by the conversion of open lands to residential development. In an effort to preserve and formalize the public's right to use these trails, Los Angeles County adopted the Riding and Hiking Trails Master Plan for the Santa Monica Mountains, which is adopted by ordinance into the highway element of the County's 1982 General Management Plan for the Santa Monica Mountains National Recreation Area as updated in 1984 as the Land Protection Plan. The trail system is mapped as part of the 1986 certified Land Use Plan for the Malibu/Santa Monica Mountains Area, a component of the County's Local Coastal Program. The trail system includes the Backbone Trail, a main access route along the coast leading from the metropolitan Los Angeles area on the east past Leo Carrillo State Beach at the Los Angeles County – Ventura County border to Point Mugu State Park in Ventura County on the west. Numerous cross mountain lateral trails link the major population center of the San Fernando Valley on the north with numerous Federal, State, and County mountain and beach park lands within the Mountains and to the south on the beach. These lateral trails provide these links between downtown Santa Monica on the east to Point Mugu State Park on the west. There are two designated regional connector trails linking the Malibu/Santa Monica Mountains trail system with a larger regional system which connects the beach and mountain areas with trails in the Simi Valley, San Gabriel Mountains and other inland areas. The trail network will make a very large number of destinations available to hikers and equestrians. These destinations are quite varied in nature and therefore have the potential of holding interest for many different persons. The choice includes highly scenic locations, such as Escondido Falls and Castro Crags area; historic sites, including motion picture locations; and active group campsites. Dramatic coastal views, including almost unmatchable views of the Channel Islands, are available from vista points along the Backbone Trail, to which the Coastal Slope Trail connects. These

extraordinary coastal views are central to the coastal mountain recreation experience and together with the fauna, flora, and climate specific to this area, are among the coastal resource values protected by the public access and recreation policies of the Coastal Act.

One of the trails identified in the adopted trail system is the Tuna Canyon Trail, which provides access from the coastal area at Las Tuna Beach to the Backbone Trail between Monte Nido on the west and Topanga Canyon on the east. This trail runs along a ridge west of Tuna Canyon Road, across Little Las Flores Canyon, along Swenson Road to the subject site, then it bisects the subject two parcels in a south-north, continuing to the top of Saddle Peak area where the Backbone Trail is located. These trails have become important and commonly used recreational assets and a means of providing access to and links between natural, scenic, and recreational areas in the mountains. The proposed development in this application is on a ten-acre parcel with a second parcel where a segment of the Tuna Canyon Trail, a designated segment of this major trail system, bisects these ten-acre parcels.

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 Tuna Canyon Trail segment bisecting the subject property appeared to be used by hikers, based on an October 2, 2002 site visit. This planned and mapped trail route appears to follow an existing dirt road, known as Boyd Road across these two ten-acre parcels in a south to north direction. Due to other work priorities, additional research on public use of this trail segment and a thorough onsite review was not completed. It is uncertain if prescriptive rights have been established along this route. However, the increased demands caused by residential buildout in this area make it necessary to condition such development to formalize the publics right to continued use of these trails. Commission Staff asked the applicant to contacted representatives of the Santa Monica Mountains Conservancy and the County of Los Angeles Park and Recreation Department to determine the status and use of this trail. The Santa Monica Mountains Conservancy Director has responded that he would be willing to attend at a later date a site visit with the applicant, staff from the County of Los Angeles Park and Recreation Department, and Commission staff to review this proposed public trail rerouting. As of this date, no specific information has been received.

As noted previously, the application includes a voluntary offer to dedicate a public trail easement along a rerouting of the trail along the southern and western property boundaries of these two parcels (Exhibits 22 and 23). This offer to dedicate the easement on this site represents an important link that may assist in completing this trail in the future. However, the applicant's offer to dedicate a new route for this trail does not reach the northern end of the planned route at the northern boundary of the applicant's northernmost parcel. The applicant's proposed route begins at the same location along Swenson Drive but instead of heading due north along the existing dirt road, Boyd Road, the direction of the new route follows along the southern property line of the southernmost parcel in a westerly direction to the southwest corner of this parcel. From this location the route continues north along the western property boundary to the northwest corner of the northernmost parcel, where the trail would then access the adjoining parcel owned by the Santa Monica Mountains Conservancy. The land located to the west of the applicant's two parcel are also owned by the Santa Monica Mountains Conservancy. The northerly trail segment end of the applicant's trail reroute does not the same location as the northerly trail segment end of the County's planned route along Boyd Road. As a result, in order to connect the applicant's northerly end of the proposed Tuna Canyon Trail rerouting with the northerly end of the County's planned route, **Special Condition No. Thirteen** requires that the applicant offer to dedicate the connection between the applicants proposed trail reroute and the County's planned trail segment end (if any is required) on the applicant's northernmost parcel. In addition, the applicant's voluntary offer to dedicate an easement requires formalization through a recorded document, i.e., an irrevocable offer to dedicate a route which is agreed to by the Executive Director and concerned agencies, and provides for acceptance by a public agency or private association. Therefore, **Special Condition No. Thirteen** has been included, consistent with the applicant's proposal in order to implement the applicant's offer to dedicate a public hiking and equestrian trail, a five to ten (5' to 10') foot wide easement along a portion of the southern property boundary and a five to ten (5' to 10') foot wide easement, its exact location to be determined prior to construction within a fifty foot wide trail corridor located along a

portion of the southern property boundary and along the westerly property boundary of the two subject parcels, prior to the issuance of the coastal development permit.

a. Conclusion

For the reasons discussed above, the Commission finds that the trails to a substantial extent will serve existing and future residents of the area, and will help meet the increased recreational demands that the increased numbers of residents, including this applicant, will place on the recreational resources of the mountains and seashore. The trails will connect with park lands that serve people from the region and from outside the area, and will provide recreational opportunities that are an alternative to the beaches and will also provide an alternative mode of access to the mountain and beach areas, helping mitigate the increased traffic congestion caused by new development. In all of these ways, approval of the application with the recommended condition will also ensure that the applicants offer to dedicate a trail easement is proposed in a location and design consistent with the pattern of trail routes and design parameters found in the certified LUP. Therefore, the Commission finds that the proposed project, as conditioned, to provide for the easement dedication of a rerouted segment of the Tuna Canyon Trail is consistent with Sections 30210, 30212(a), 30212.5, 30213, 30223, 30252, 30254, and 30530 of the Coastal Act.

## H. Violations

Unpermitted development occurred on the subject parcel prior to submission of this permit application consisting of the removal of about 1.23 acres of native vegetation and the grading of a portion of this area and the grading and excavation of the proposed building pads for the purpose of geologic and soil testing and excavation, the grading of a new access driveway from Swenson Drive and the grading and expansion of existing dirt roadways. The subject permit application addresses the unpermitted development, as well as the new development proposed in the subject application. In order to ensure that the applicant's proposal to restore and revegetate portions of the site where unpermitted development occurred, **Special Condition No. Fourteen** requires the applicant to submit restoration/revegetation plans, including a grading plan prepared by a licensed civil engineer, to restore the two areas on the subject parcel where unpermitted vegetation removal and grading occurred, and shall include the removal of one of the two dirt roadways leading north on the southern most parcel. **Special Condition No. Fourteen** also requires that the plan include a landscaping and erosion control plan, including an irrigation plan, prepared by a qualified habitat restoration consultant. In order to ensure that the matter of unpermitted development is resolved in a timely manner, **Special Condition No. Sixteen** requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 120 days of Commission action, or within such additional time as the Executive Director may grant for good cause.

Consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review of this permit does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit.

## I. Local Coastal Program

Section 30604 of the Coastal Act states:

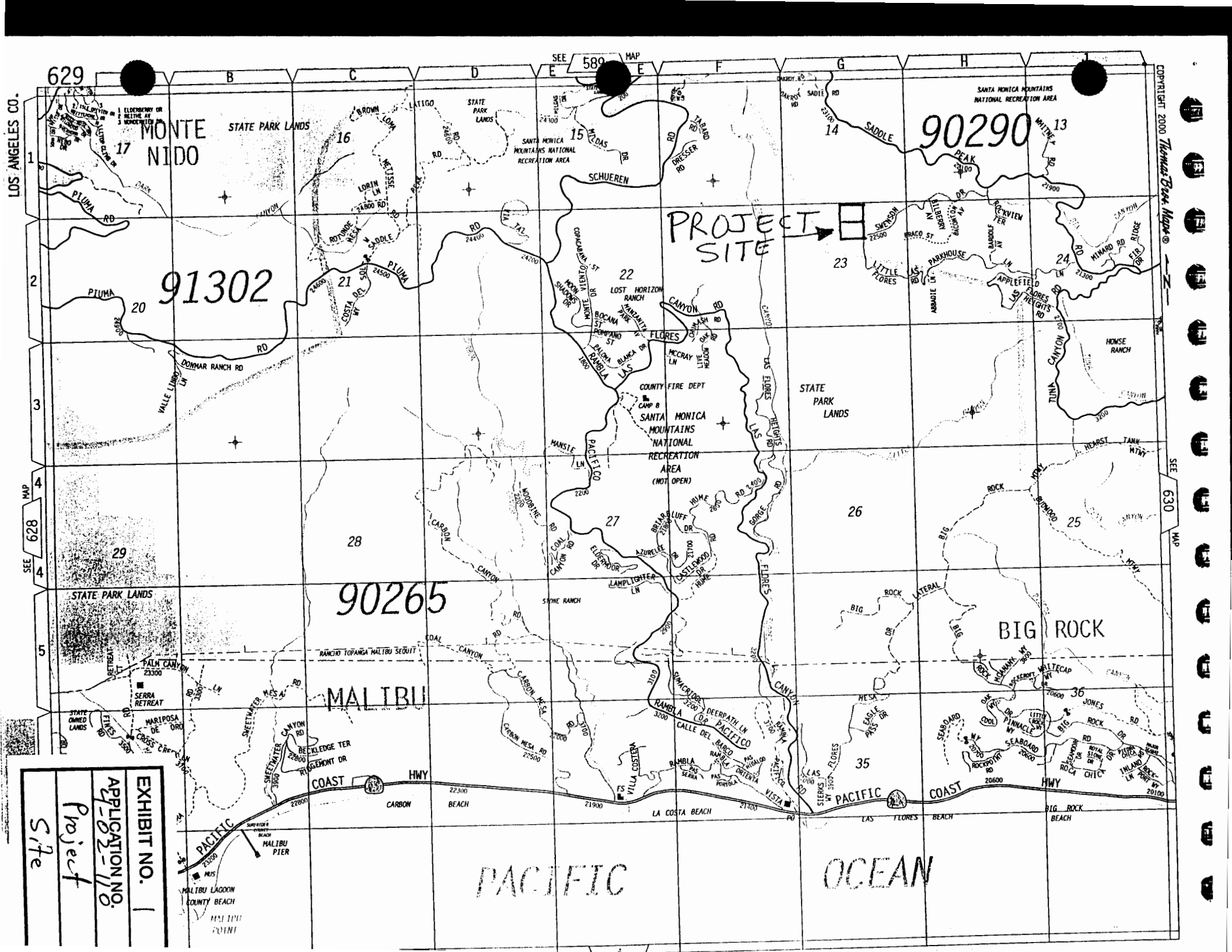
> ***a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that 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 with 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).

## J. CEQA

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 finds that the proposed projects, as conditioned, will not have significant adverse effects on the environment within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed projects, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.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SEE MAP 589
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SEE MAP 630
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MONTE NIDO
STATE PARK LANDS
91302
90290
SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA
PROJECT SITE
LOST HORIZON RANCH
COUNTY FIRE DEPT
CAMP 8
SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA (NOT OPEN)
HOWSE RANCH
90265
STONE RANCH
BIG ROCK
MALIBU
RANCHO TOPANGA MALIBU SEQUIT
SERRA RETREAT
MARIPOSA DE ORO
SWEETWATER MESA
CARBON MESA
COAST HWY
PACIFIC COAST HWY
CARBON BEACH
LA COSTA BEACH
LAS FLORES BEACH
BIG ROCK BEACH
MALIBU PIER
MALIBU LAGOON COUNTY BEACH
MALIBU POINT
PACIFIC OCEAN
PIUMA RD
DONMAR RANCH RD
LATIGO CANYON RD
SCHUEREN RD
SADDLE PEAK
CANYON RD
FLORES CANYON RD
LAS FLORES CANYON RD
PACIFICO
RAMBLA LAS FLORES
CALLE DEL PACIFICO
SUMACRIDGE DR
DEERPATH LN
COAL CANYON RD
CARBON CANYON RD
SWENSON DR
PARKHOUSE LN
APPLEFIELD LN
LITTLE FLORES RD
MINARD RD
TUNA CANYON RD
HEARST TANK HTWY
BIG ROCK MESA
ROCKPOINT RD
SEABOARD RD
PINNACLE MY
WHITECAP MY
JONES RD
INLAND ROCK PORT MY
EXHIBIT NO. 1
APPLICATION NO. 4-02-110
Project Site

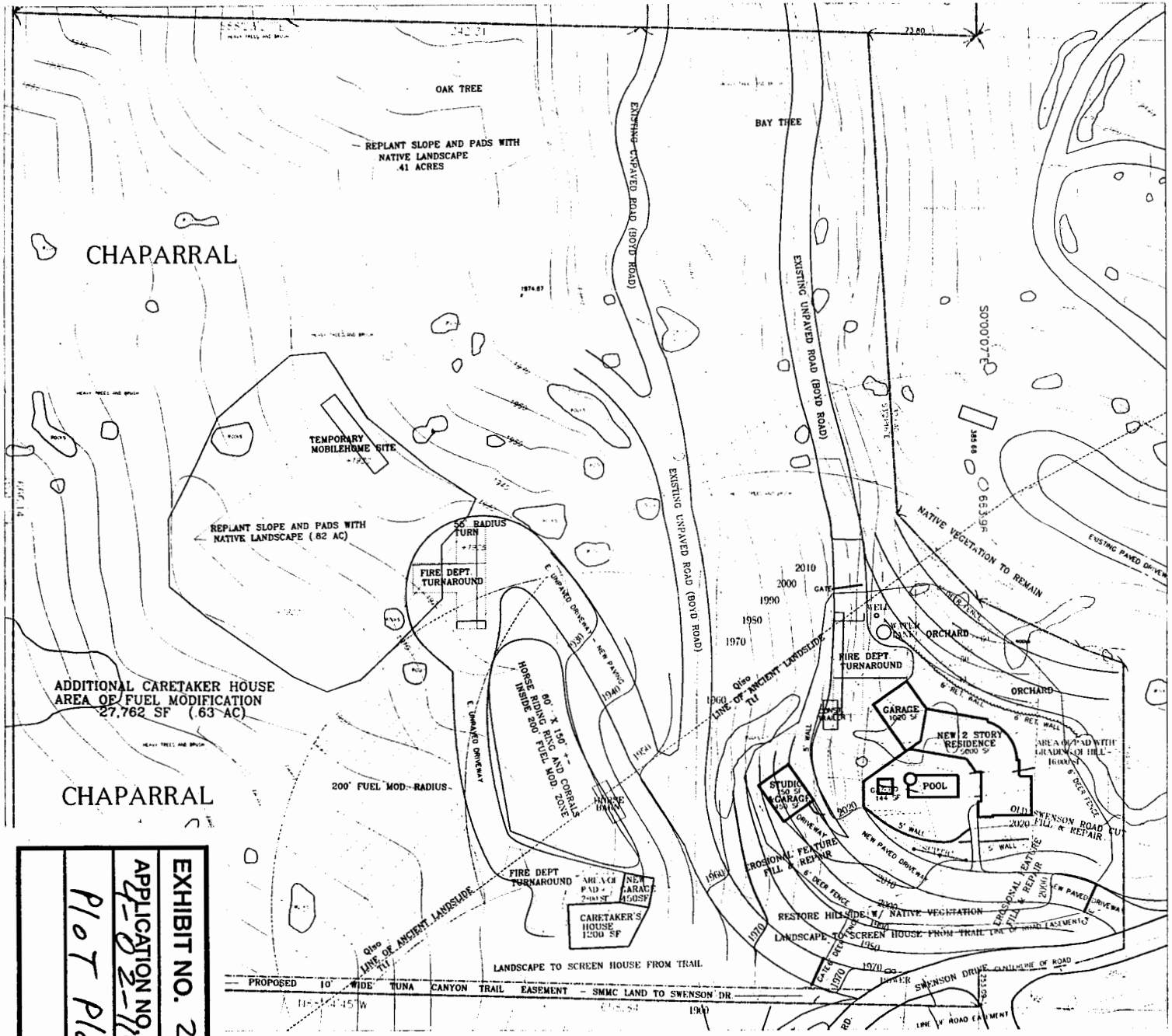



EXHIBIT NO. 2
APPLICATION NO. 4-02-110
Plot Plan

## PROJECT DATA:

CDP CASE # 4-02-110

Construct a two story, 28 ft. high, 5,000 sq. ft. single family residence with attached 1,020 sq. ft. three car garage, detached Studio (750 sq. ft.) over a Garage (450 sq. ft.), a Caretaker's house (1200 sq. ft.) with attached garage (400 sq. ft.), pool and spa with 144 sq. ft. Gazebo, water well and storage tank, septic systems (2) , retaining walls, temporary construction trailer and mobile home, new paved driveway to residence, new paved driveway to Caretaker house, a horse riding ring and corrals - within fuel modification zone, a barn/shade structure (15'x25') , grading of 650 cubic yards of cut and fill for residence flat pad area, 260 cubic yards of cut for driveway, 2,415 cubic yards of grading to fill 2 erosional features and rebuild the hillside at a 2:1 slope from Swenson Drive to the access driveway, other misc grading for Caretaker house 92 yards, barn 20 yards, and horse ring area 50 yards, for total grading of 6,450 cubic yards, remove existing vegetation in two areas totaling 1.23 acres and grade (as completed), and grade three areas for geologic testing (as completed), replant these two areas with native landscaping, 6 foot high deer fence around House, Studio, Orchard and Garden, and landscaping located at 22345 Swenson Drive, Topanga.
In addition - voluntarily grant a 10 foot wide trail easement to provide public access for the Tuna Canyon Trail, provide landscaping along Swenson Drive to screen the house from the new trail, and create a conservation deed restriction upon the adjacent 10 acre parcel to the north to limit development and provide for natural open space.

PLOT PLAN 1" = 30'
CONTOUR INTERVAL = 10'

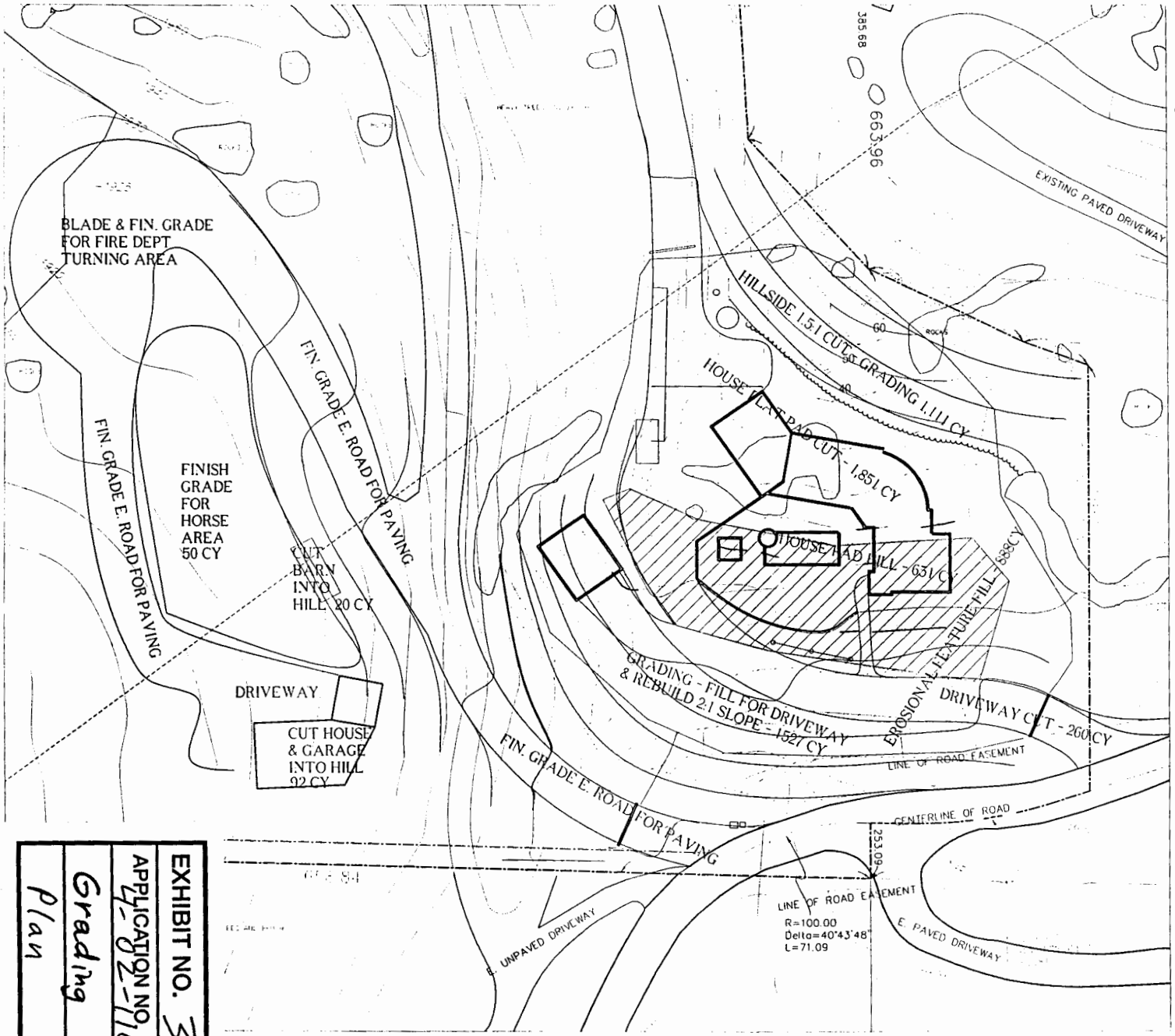
KHALSA & ASSOC./TKG LA
ARCHITECTURE - PLANNING - INTERIORS
1767 WOOSTER STREET
LOS ANGELES CA 90035
TELE 310/550-7065 FAX 550-0050
E-Mail tkgla@attbi.com

KHALSA RESIDENCE
22345 SWENSON DRIVE (APN 4448-021-007)
TOPANGA, CA 90290

PLOT PLAN W/ TRAIL EASEMENT
GARDENS WALLS FENCES ETC
RESUBMITTAL DATE 11-6-2002
FINAL PLOT PLAN 12-6-02
5-23-2003

REGISTRATION

CC.1




## PROJECT DATA:

CDP CASE # 4-02-110

GRADING CALCS:
Hillside grading - cut at 1.5 to 1
40'x100'x15'/2 /27 = 1,111 CY (cut)

House pad - cut
48' x 12.5' x 20'/2 /27= 1851 CY
House pad - fill
40' x 110' x 4' /27 = 651 CY

Driveway - cut from street
70' x 20' x 10'/2 /27 = 260 CY

Driveway fill at (east) erosion feature
-
60' x 40' x 20'/2 /27 = 888 CY

Hillside restoration grading - fill at 2:1 (including west erosion feature)
50' x 110' x 15'/2 /27 = 1527 CY

Finish Grade existing unpaved roads and Fire Department turnaround for new paving. Blade and widen as required by Fire Department.
Finish Grade Horse area - 20CY.
Cut into hillside for Caretaker's House and Garage building (92 CY)and for Barn/Shade structure (20 CY).

Total grading = 6450 Cubic Yards

From Project Description:
(grading of 650 cubic yards of cut and fill for residence flat pad area, 260 cubic yards of cut for driveway, 2,415 cubic yards of grading to fill 2 erosional features and rebuild the hillside at a 2:1 slope from Swenson Drive to the access driveway, for other misc grading for Caretaker house 92 yards, barn 20 yards, and horse ring area 50 yards, for total grading of 6,450 cubic yards)

## GRADING PLAN

SCALE: 1" = 20'
CONTOUR INTERVAL = 10'

KHALSA & ASSOC./TKG LA
ARCHITECTURE - PLANNING - INTERIOR - INNOVATION
1767 WOOSTER STREET
LOS ANGELES CA 90035
TELE 310/559-7088 FAX 559-0030
E-Mail tkgla@attbi.com

KHALSA RESIDENCE
22345 SWENSON DRIVE (APN 1118-021-007)
TOPANGA, CA 90290

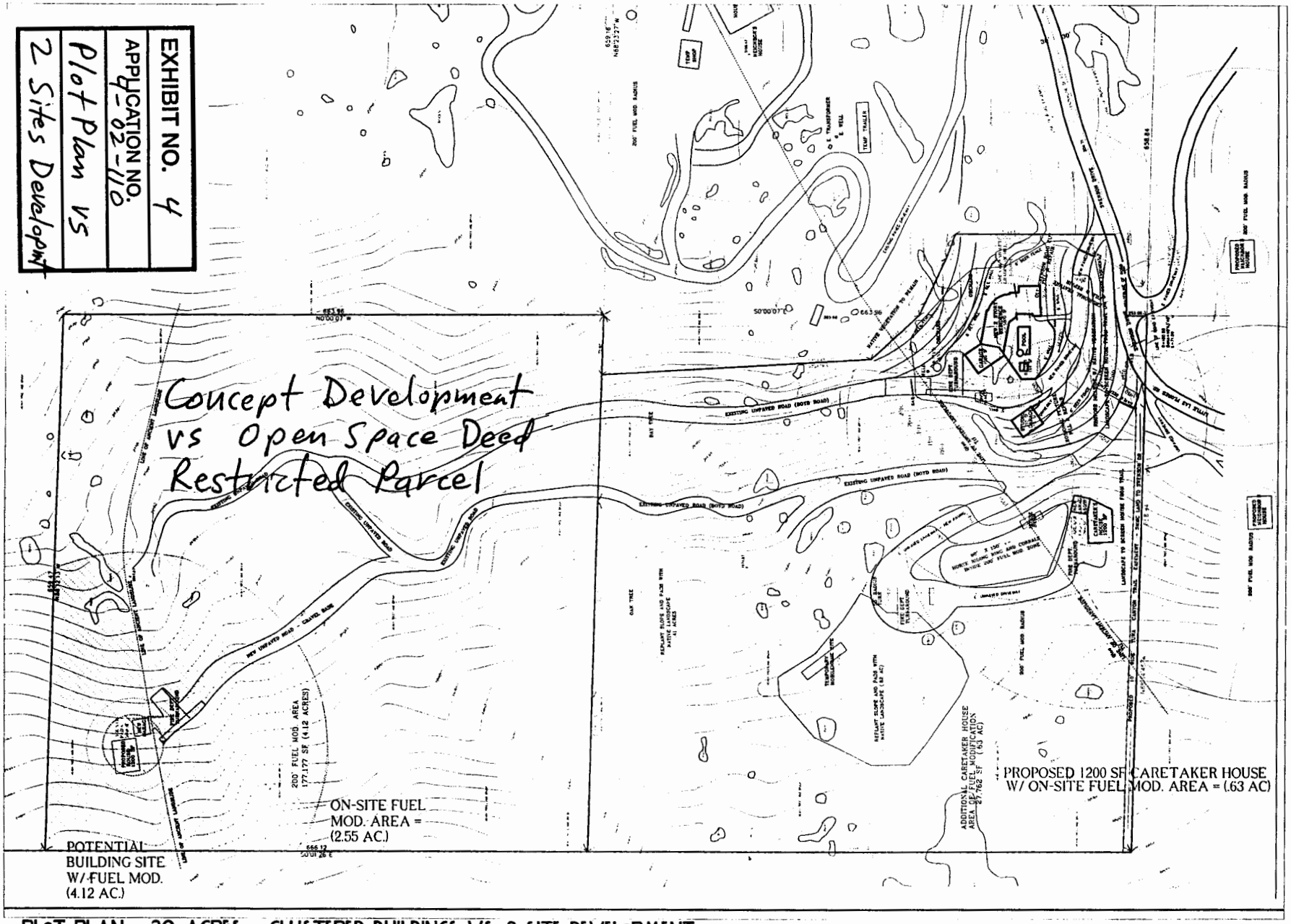
PLOT PLAN W/ TRAIL EASEMENT
GARDENS, WALLS, FENCES ETC
RE-SUBMITTAL DATE 11-6-2002
FINAL PLOT PLAN 1-15-03
3-25-2003

REGISTRATION

G1.1

EXHIBIT NO. 3
APPLICATION NO. 4-02-110
Grading Plan

EXHIBIT NO. 4
APPLICATION NO. 4-02-110
Plot Plan vs 2 Sites Development




PLOT PLAN - 20 ACRES - CLUSTERED BUILDINGS VS. 2 SITE DEVELOPMENT SCALE = 1" = 50' CONTOUR INTERVAL = 10'

KHALSA & ASSOC./TKG LA
ARCHITECTURE - PLANNING - INTERIORS
1767 WOOSTER STREET
LOS ANGELES CA 90035
TELE 310/550-7055 FAX 550-0650
E-Mail tkgla@attbi.com

KHALSA RESIDENCE CDP CASE # 4-02-110
22345 SWENSON DRIVE (APN 4118-021-007)
TOPANGA, CA 90290

PLOT PLAN W/ TRAIL EASEMENT
GARDENING, WATER FEATURES ETC
RE-SUBMITTAL DATE 11-6-2002
FINAL PLOT PLAN 1-15-2003

REGISTRATION

CC.2

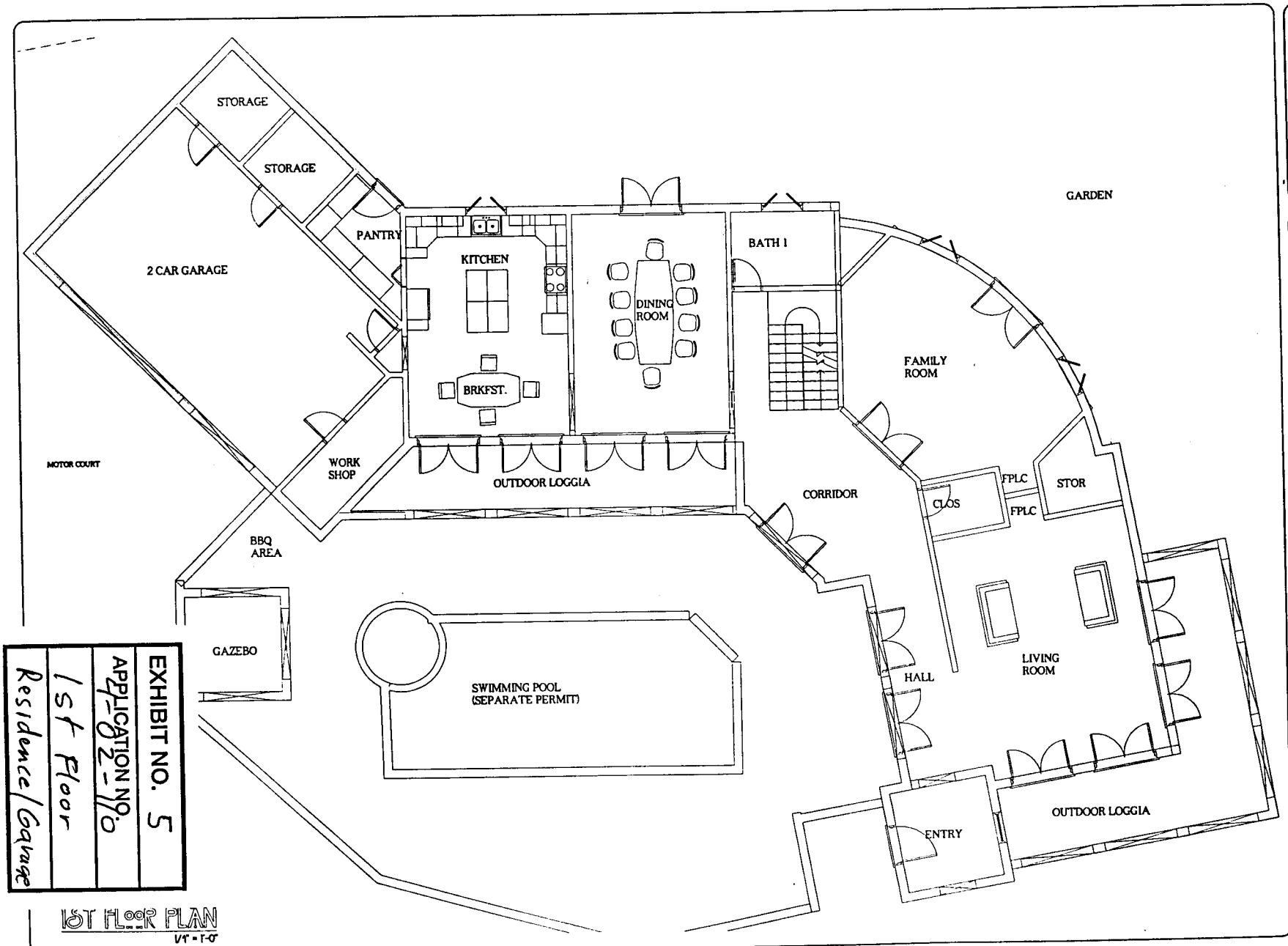



EXHIBIT NO. 5
APPLICATION NO. 12-110
1st Floor Residence/Garage

1ST FLOOR PLAN
1/4" = 1'-0"

KHALSA & ASSOC./TKG LA
ARCHITECTURE - PRESERVATION - INNOVATION
1767 WOOSTER STREET
LOS ANGELES CA 90035
TELE 310/559-7088 FAX 559-0050
E-Mail tkgla@attbi.com

KHALSA RESIDENCE
SWINSON DRIVE (APN 2118-024-007)
TOPANGA, CA 90290

PLOT/TURO 9-16-03
GEO-SOILS/ENGR. 10-1-01
GRADING/GRAPAGE CONCEPT OK 3-7-2002
APPROVAL IN CONCEPT - LACO 2-13-2002

REGISTRATION

A1.1

KHALSA & ASSOC./TKG LA
ARCHITECTURE - PRESERVATION - INNOVATION
1767 WOOSTER STREET
LOS ANGELES CA.90035
TELE 310/559-7088 FAX 559-0050
E-Mail tkgla@attbi.com

KHALSA RESIDENCE
SWENSON DRIVE (APN 4448-021-007)
TOPANGA, CA 90290

REGISTRATION

A1.2




2ND FLOOR PLAN
1/4" = 1'-0"

WALL LEGEND

EXHIBIT NO. 6
APPLICATION NO. 4-02-110
2nd Floor
Residence

KHALSA & ASSOC./TKG LA
ARCHITECTURE - PRESERVATION - INNOVATION
1767 WOOSTER STREET
LOS ANGELES CA.90035
TELE 310/559-7088 FAX 559-0050
E-Mail tkgla@attbi.com

KHALSA RESIDENCE
SWENSON DRIVE (APN 7948-024-007)
TOPANGA, CA 90290

REGISTRATION

A1.2




2ND FLOOR PLAN (ALTERNATE)
1/4" = 1'-0"

WALL LEGEND:

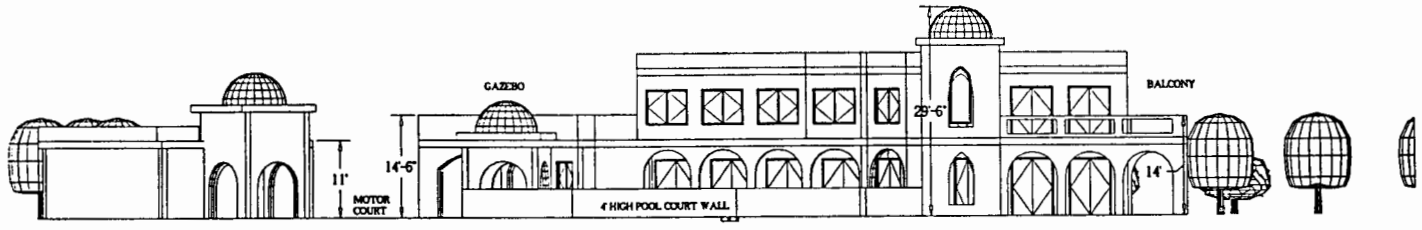
EXHIBIT NO. 7
APPLICATION NO. 4-02-110
2nd Floor (Alt)
Residence

EXHIBIT NO. 8

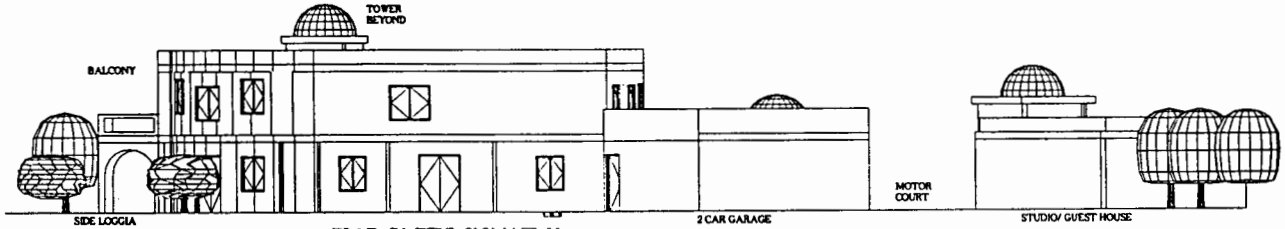
APPLICATION NO. 4-02-110

Southwest

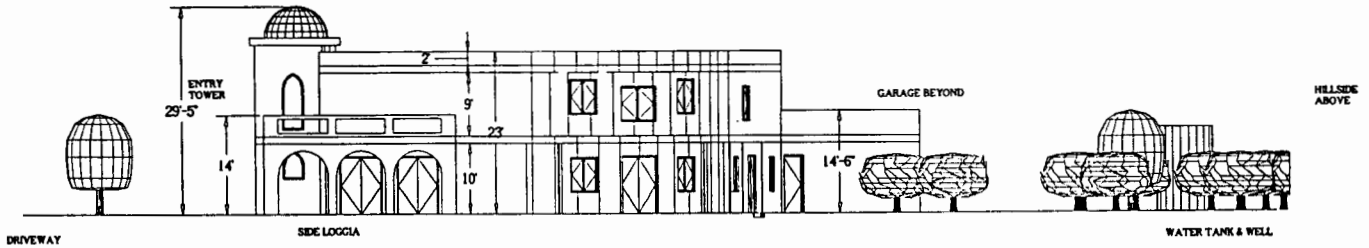
Oblique View



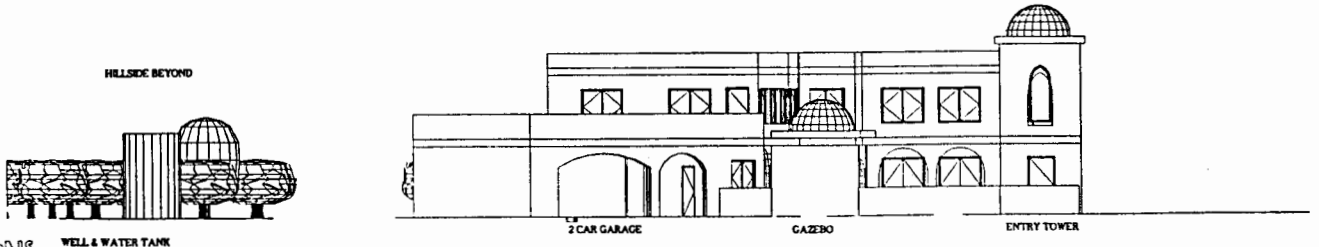

FRONT (SOUTH) ELEVATION




REAR (NORTH) ELEVATION




EAST (SIDE) ELEVATION




WEST (SIDE) ELEVATION

BUILDING ELEVATIONS

1/8" = 1'-0"

EXHIBIT NO. 9
APPLICATION NO. 4-02-178
Elevations

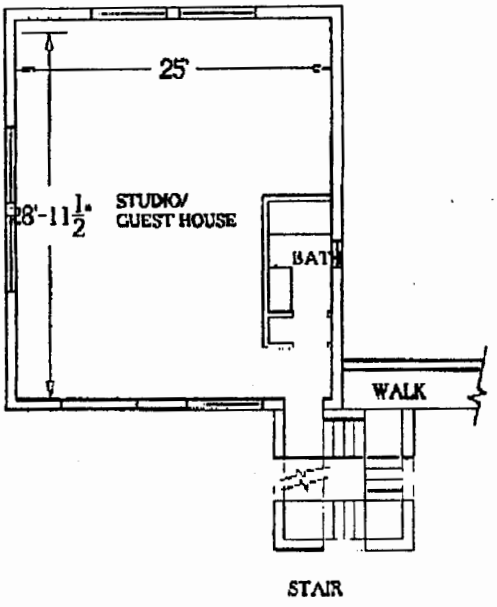
KHALSA & ASSOC./TKG LA
ARCHITECTURE - PRESERVATION - RENOVATION
1767 WOOSTER STREET
LOS ANGELES CA.90035
TELE 310/559-7088 FAX 559-0050
E-Mail tkgla@attbi.com

KHALSA RESIDENCE
SWENSON DRIVE (APN 4446-021-007)
TOPANGA, CA 90290

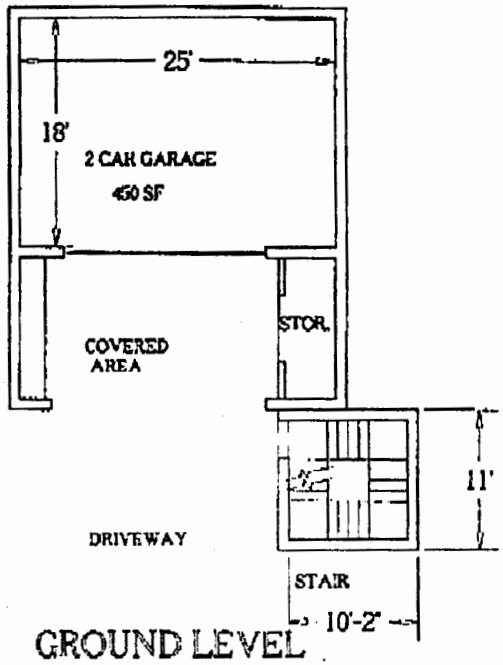
PLOT/TOPO 9-18-01
GEO-SOILS/PERC 10-9-01
GRADING/DRAINAGE CONCEPT OK 2-7-2002
APPROVAL IN CONCEPT -LACO 3-13-2002

REGISTRATION

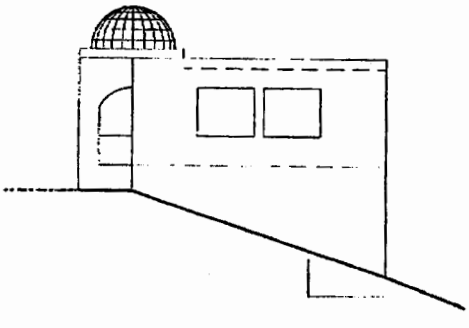
A2.1



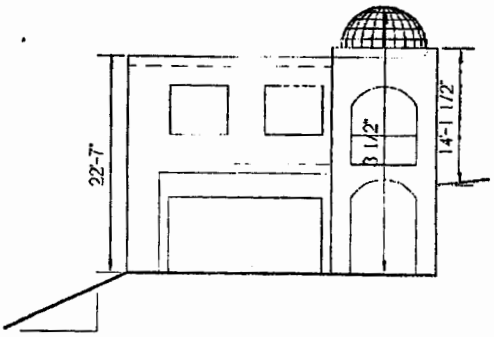

2ND FLOOR



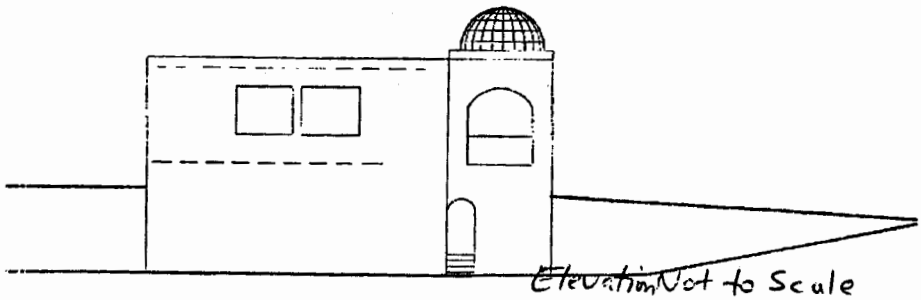

GROUND LEVEL



WEST ELEVATION




EAST ELEVATION

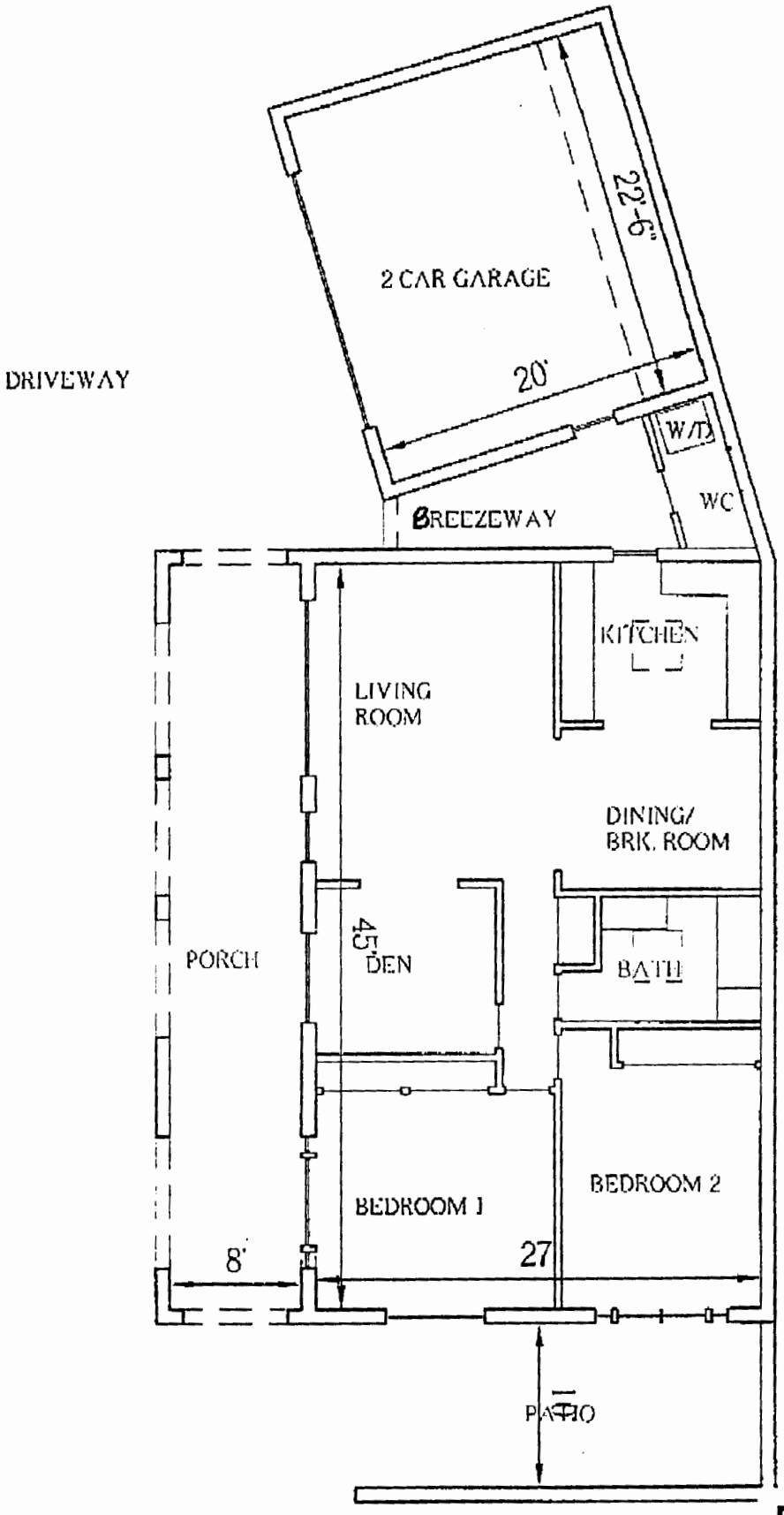



SOUTH ELEVATION

# STUDIO/GUEST HOUSE PLANS & ELEVATIONS

1/8" = 1'-0"

EXHIBIT NO. 10
APPLICATION NO. 4-02-110
Studio Plans & Elevation



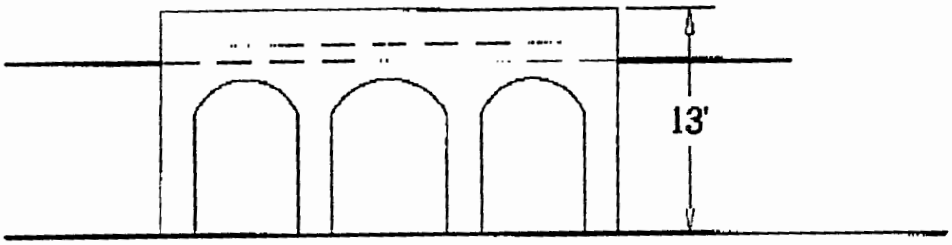

# CARETAKER HOUSE PLAN

EXHIBIT NO. 11
APPLICATION NO. 4-02-110
Caretaker Ft
Plans

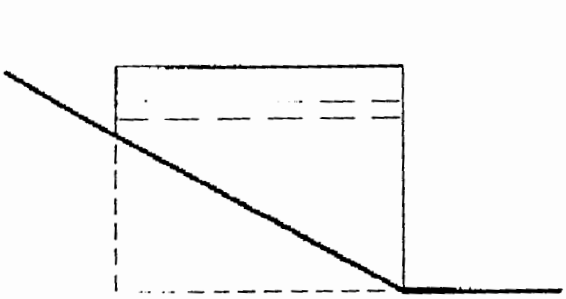
EXHIBIT NO. 12

APPLICATION NO. 4-02-110

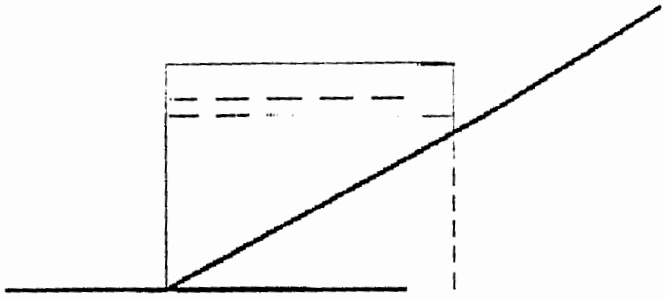
Caretaker Elevations




WEST



NORTH



SOUTH

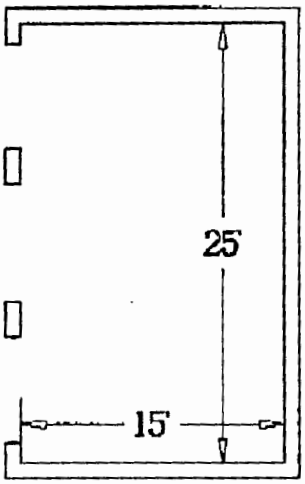
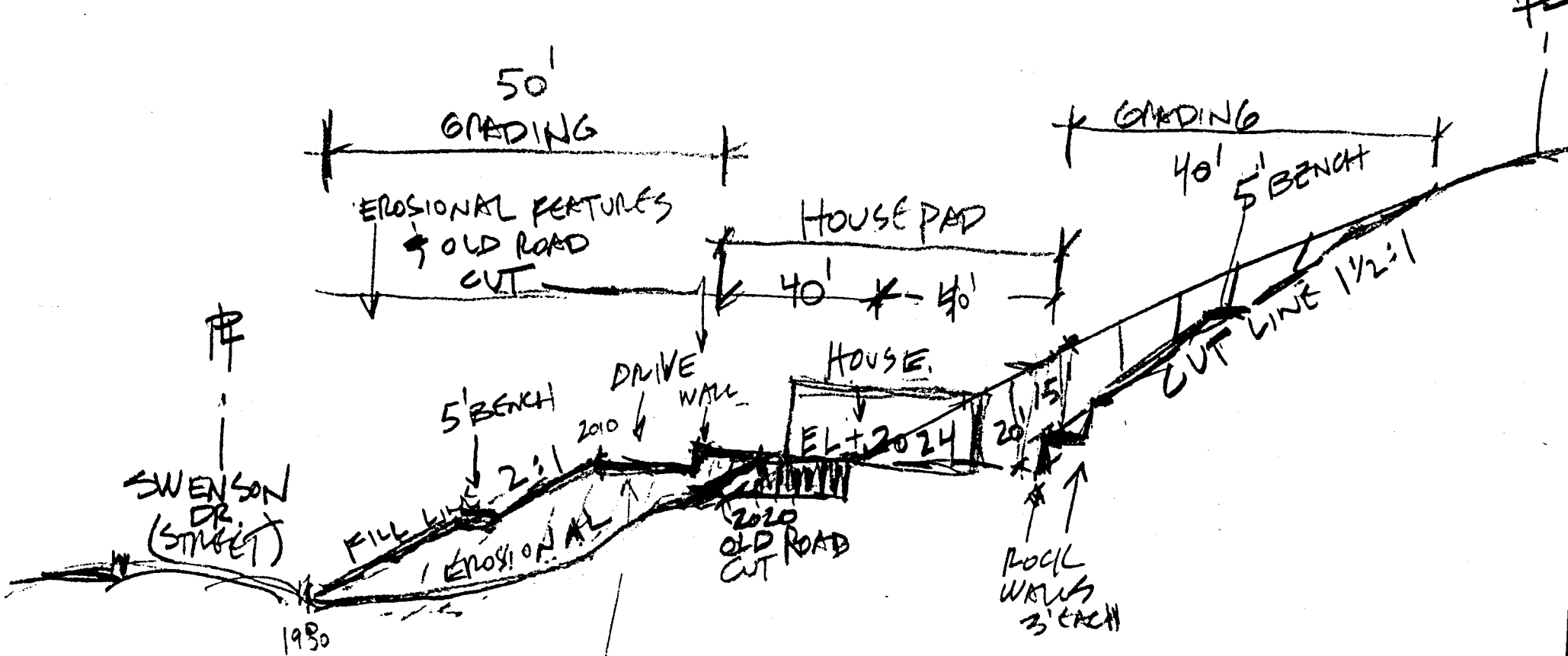



EXHIBIT NO. 13
APPLICATION NO. 4-02-110
Horse Barn & Elevation

# HORSE BARN PLAN & ELEVATIONS

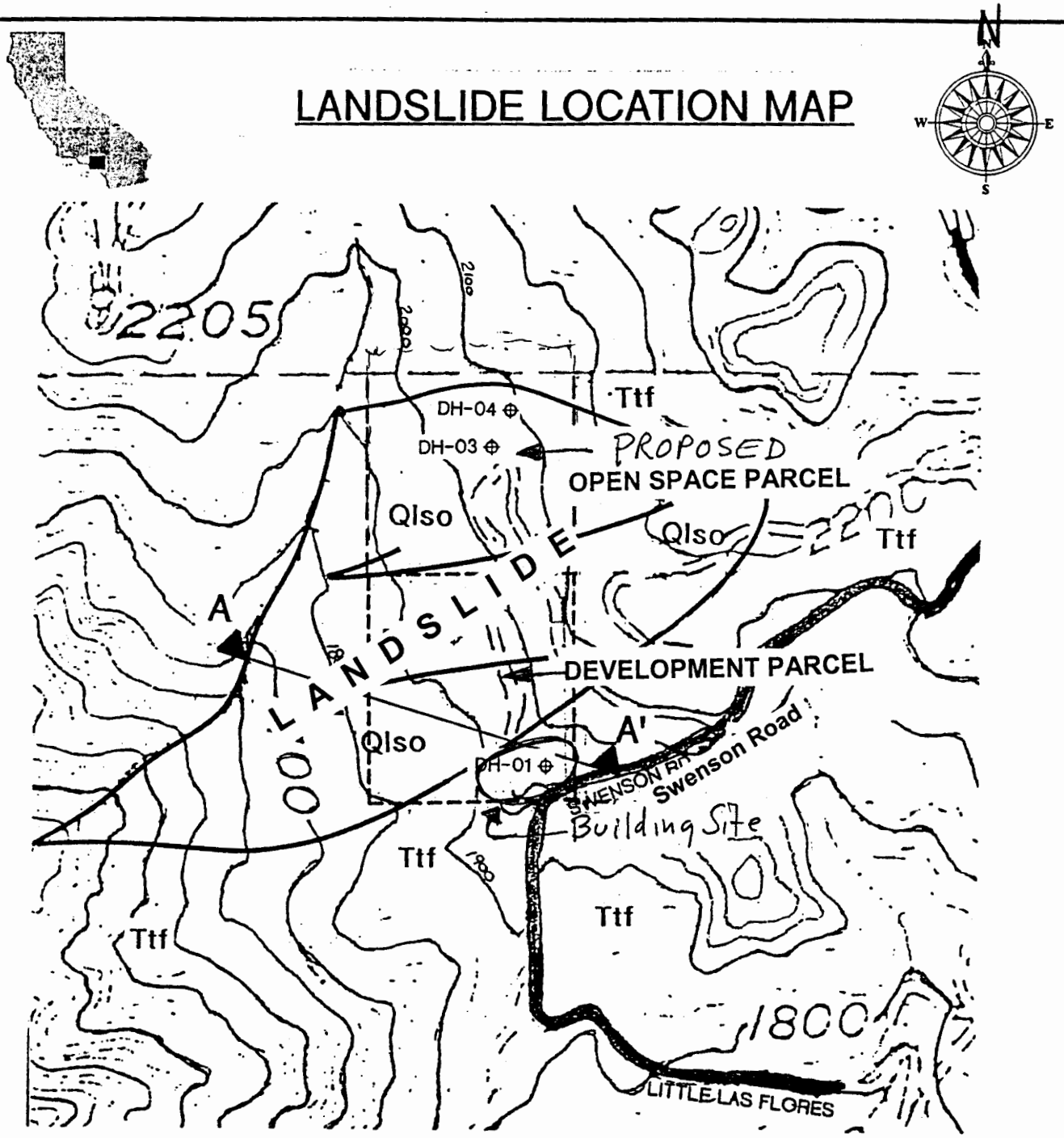



| | 50' | DRIVEWAY CUT IN ROAD | FILL | CUT | 40' | 40' |
|---|---|---|---|---|---|---|
| EROSION FILL AT FIRST | X 110' X 15/2 / 27 | 70' X 20' X 10/2 ÷ 27 | 40' X 110' X 4' ÷ 27 | 40' X 125' 20/2 ÷ 27 | | X 100 X 15' / 2 ÷ 27 |
| | 1527 CY | 260 CY | 651 CY | 1851 CY | | 1111 CY |
| | DRIVEWAY FILL (GRADING) | DRIVEWAY CUT | PAD (FILL) HOUSE | PAD/HOUSE (CUT) | | GRADING (CUT) |

| EXHIBIT NO. 14 |
|---|
| APPLICATION NO. 4-02-110 |
| Conceptual |
| Grading-Residence |

- 0
- 1
- 7
- 3 CY

# LANDSLIDE LOCATION MAP




| | | |
|---|---|---|
| **SubSurface Designs, Inc.**<br>Geotechnical Engineers<br>Engineering Geologists | **Client:** Jai Pal Singh Kalsa | **PIN#** 4036 |
| | **Ref:** Modified from the Topographic Map of the Malibu Beach Quadrangle, prepared by U.S. Geological Survey.<br>**Scale:** 1" = 500' | |



EXHIBIT NO. 15
APPLICATION NO. 4-02-110
Landslide a
Two Parcel

PLANT LIST:
PLOT PLAN 1" = 30'
CONTOUR INTERVAL
ARB
REGISTRATION
RECEIVED
SEP 2 3 2002
KHALSA RESIDENCE
22345 SWENSON DRIVE
TOPANGA, CA 90290
STEVE WILLIAMS, Registered Professional Forester
ARBOR - CULTURE
CRAIG CROTTY
ISA CERTIFIED ARBORIST #749
BC-C27-734117
818-957-8824 FAX 957-8834
N
S0°00'07"E
EXISTING PAVED
NEW 2 STORY RESIDENCE
NEW STUDIO 750 SF
3 CAR GARAGE
POOL
GAZEBO
WELL
WATER TANK
FIRE DEPT TURNAROUND
NEW PAVED DRIVEWAY
SUMAC
CHAPARRAL
OAK TREE
Vegetation Removed
GRADED
Vegetation Removed
Graded
NEW GARAGE
EXHIBIT NO. 18
APPLICATION NO. 4-02-110
Vegetated & Graded Areas

October 12, 2002
Steve Williams

**Botanical Inventory for 22345 Swenson Drive (CC Application No. 4-02-110)**

**Site visit dates:** 10/02/02 - 2.0 hours (with Jai Pal Khalsa and James Johnson)
10/08/02 - 6.5 hours

**Methodology:** A copy of the arborist's map (received by CC on 9/25/02) was used as the base map. Each vegetation polygon was surveyed and species and dominance were listed. Digital photos were taken to illustrate current vegetation and site conditions. Photos are numbered and corresponding photopoints are represented on map with arrows depicting lens direction.
*Note: Because this survey was conducted in October of a drought year, mostly perennial species were encountered, with the exception of a couple late annual weeds. If any rare, threatened or endangered annuals occur onsite, they are undetectable at this time of year.*

**Report Contents:**

- Three-page master photo list (photos #1-31)
- Eight-pages of photos grouped by project area (includes notations).
- Map with photopoints and directional arrows
- Text describing resources and mapped features

**Project Description:** The applicant has proposed to build a two-story, 28 ft. high, 5000 sq. ft. single family residence with attached 1020 sq.ft. three-car garage, swimming pool, front and back yards, gazebo, fire dept. turnaround, retaining walls, water storage tank and septic system. The plan also calls for a 1500 sq.ft. two-story guest house opposite the main residence. And, 225 ft. west and 100 ft. below the main residence, two 400 sq. ft. detached garages. In addition, 7341 cubic yards of cut and fill for the house pad and driveway. Also, 7700 sq. ft. of paved driveway, 11,600 sq. ft. of base driveway and a temporary mobile home and construction trailer are proposed.

**Current Site Conditions/ Existing Alterations:**
The area proposed for the house, pool, garage and turnaround is near the southeastern edge of the 10-acre property. Currently, it is partially cleared chaparral with a boulder outcrop. There is a graded narrow pad near the southern edge of the building footprint. The adjacent proposed studio site consists of partially cleared chaparral on a relatively steep hillside. The entire area is accessed by a dirt road that leaves Swenson opposite the driveway across the street and continues north beyond this 10-acre parcel.

The bulk of recent site alterations have occurred on the north-central and west-central portions of the parcel. 54,000 square feet of vegetation has been cleared from this area (1.23 acres). Old roadbeds have been widened and graded, adjacent land has been cleared of vegetation, and a few areas graded flat.

| EXHIBIT NO. 19 |
| --- |
| APPLICATION NO. 4-02-110 |
| Botanical Inventory |

**All vegetation has been cleared by bulldozer to the base of the tree (photo 17). The protected area of oak trees extends five feet out from dripline or fifteen feet from trunk, whichever is greater. Since this site is not proposed for development (landslide area), the native vegetation should be allowed to regenerate. Re-sprouting Toyon, Bush Mallow, Sawtooth Goldenbush and Chamise in this area indicate a former chaparral community.**

California Coastal Commission
c/o MR. JAMES JOHNSON
89 South California Street Suite 200
Ventura, CA 93001
Tele 805-585-1800

3-25-2003

Re: Memorandum of Understanding - for Conservation/Open Space dedication - CDP Application #4-02-110

Regarding development of 22345 Swenson Drive as per CDP #4-02-110, we agree to create a Conservation/Openspace deed restriction across parcel #4448-024-006, the details and language of which shall be worked out prior to final Coastal Commission approval and issuance of Building Permits.

Jai Pal S. Khalsa

Dorit Dan

## James Johnson

**From:** Paul Edelman [edelman@smmc.ca.gov]
**Sent:** Wednesday, April 16, 2003 11:10 AM
**To:** jjohnson@coastal.ca.gov
**Cc:** Jaipal@tkgla.com; tonda lay
**Subject:** CDP 4-02-110 22345 Swenson Drive

Hello James J.

Jai Pal S. Khalsa has sent me some maps to show how the Tuna Canyon Trail could be moved off his property onto Conservar property. That decision is too important to make without a good site visit and consultation with the Los Angeles County Parks a Recreation Trails Coordinator, Tonda Lay. I cannot make such a project a priority at this time. I do not want to hold up Mr. Kha but nonetheless the Conservancy staff strongly recommends that the Commission require a functional trail easement over his property. That is the only prudent thing to do. The Mountains Recreation and Conservation Authority would most certainly acc that easement. I can be reached today at work at 310-589-3200 ext. 128 if you have any questions. I will be on vacation Thrusday and Friday.

Thanks PE

EXHIBIT NO. 21
APPLICATION NO. 4-02-110
Memo SMMC
RE Trail

California Coastal Commission
c/o MR. JAMES JOHNSON
89 South California Street Suite 200
Ventura, CA 93001
Tele 805-585-1800 Fax 805-641-1732

4-21-2003

Re: Revision to Project Description for 22345 Swenson Drive, Topanga -- Regarding voluntary dedication of easement for Tuna Canyon Trail
CDP Application #4-02-110 .

Dear James,

Good day. Following is the revised voluntary Tuna Canyon Trail easement dedication description , across both properties, for my project. I wish to amend my project description accordingly.

TUNA CANYON TRAIL EASEMENT DEDICATION- A ten (10') foot wide strip of land commencing at Swenson Drive and the southerly property line and proceddding westerly three hundred and fifty feet (350') then widening to fifty feet (50') and proceeding westerly to the southwest property corner, then north , fifty feet (50') wide, along both properties and terminating at the north property lines, for a ten to twenty (10' to 20') foot wide trail within this trail corridor, the exact location to be determined prior to construction.

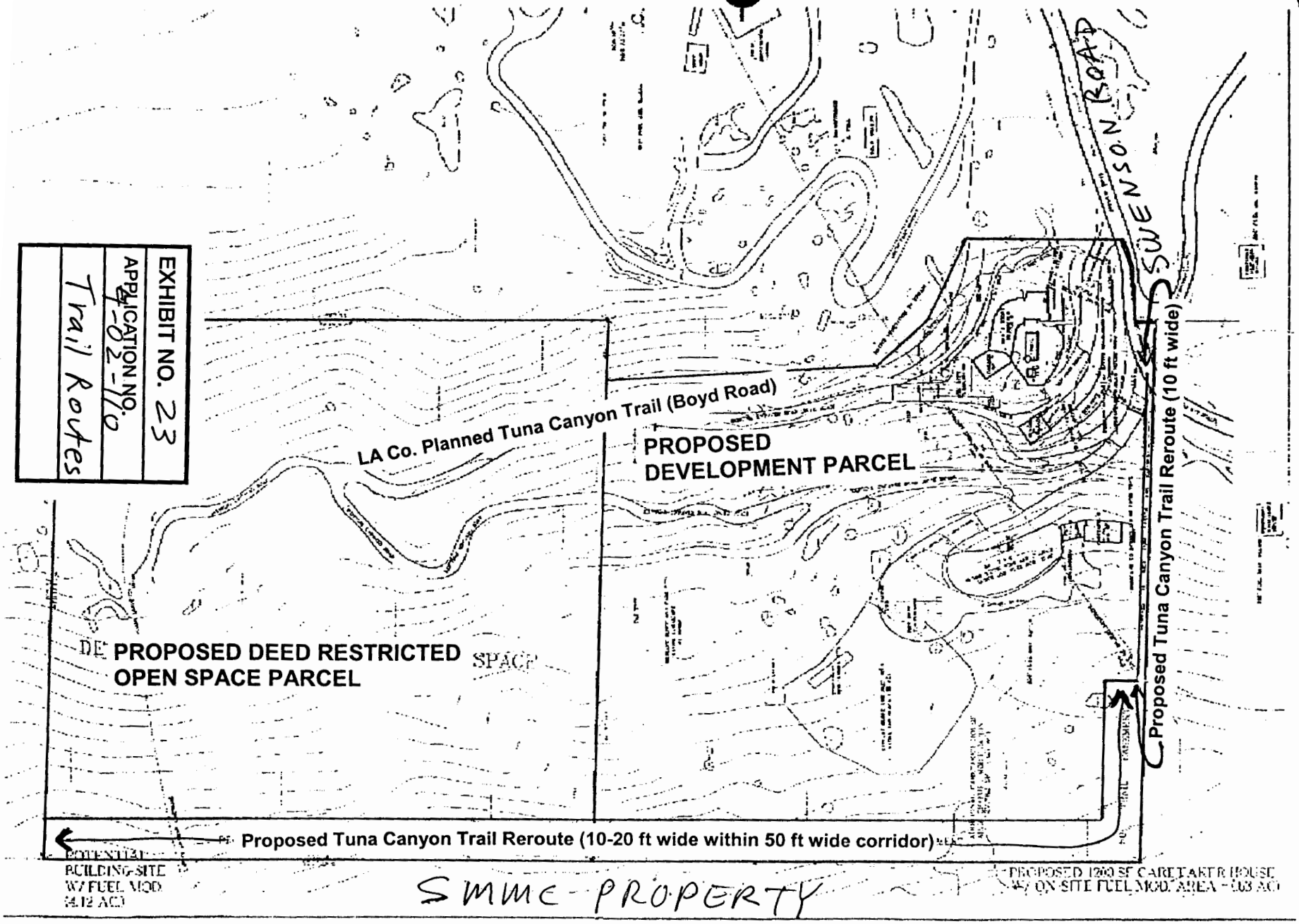
If you have any questions or need anything further do not hesitate to contact me at 310-559-7088. Thank you

Regards,

Jai Pal S. Khalsa

Attachments: Reduction of site plan "CC2" with easement shown

EXHIBIT NO. 22
APPLICATION NO. 4-02-110
Proposed Trail Re-Route




PLOT PLAN - 20 ACRES - CLUSTERED BUILDINGS VS. 2 SITE DEVELOPMENT SCALE = 1" = 50' CONTOUR INTERVAL = 5'

KHALSA & ASSOCIATES LA

KHALSA RESIDENCE CDP CASE # 4-02-110
22345 SWENSON DRIVE APN 4458-024-003
TOPANGA, CA 90290 APN 4458-024-003

REVISIONS

CC.2

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

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 NO. 24
APPLICATION NO. 4-02-110
ESHA MEMO
3/25/03

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

In addition to being a large single expanse of land, the Santa Monica Mountains ecosystem is still connected, albeit somewhat tenuously, to adjacent, more inland ecosystems[5]. Connectivity among habitats within an ecosystem and connectivity among ecosystems is very important for the preservation of species and ecosystem

---

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

[2] Ibid.

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

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

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

integrity. In a recent statewide report, the California Resources Agency[6] identified wildlife corridors and habitat connectivity as the top conservation priority. In a letter to governor Gray Davis, sixty leading environmental scientists have endorsed the conclusions of that report[7]. The chief of natural resources at the California Department of Parks and Recreation has identified the Santa Monica Mountains as an area where maintaining connectivity is particularly important[8].

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

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

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

[7] Letters received and included in the September 2002 staff report for the Malibu LCP.

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

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

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

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

[12] Recent sightings of mountain lions 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.

[13] Gause, G. F. 1934. The struggle for existence. Balitmore, 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

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

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

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

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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.

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

[15] NPS. 2000. op.cit.

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

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

Therefore, the Commission finds that the Santa Monica Mountains ecosystem is itself rare and especially valuable because of its special nature as the largest, most pristine, physically complex, and biologically diverse example of a Mediterranean ecosystem in coastal southern California. The Commission further finds that because of the rare and special nature of the Santa Monica Mountains ecosystem, the ecosystem roles of 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[18]. The minimum mapping unit was 5 acres. For that map, the vegetation was mapped in very broad categories, generally following a vegetation classification scheme developed by Holland[19]. Because of the mapping methods used the degree of plant community complexity in the landscape is not represented. For example, the various types of "ceanothus chaparral" that have been documented were lumped under one vegetation type referred to as "northern mixed chaparral." 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[20] 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

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

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

[20] 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.)

all the plant communities in the area[21]. 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 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[22]. 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[23], 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

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[21] Ibid.

[22] 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.

[23] 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.

the wet season. However, recent radio tracking work[24] has found that although the Pacific pond turtle spends the wet season in streams, it also requires upland habitat for refuge during the dry season. Thus, in coastal southern California, the Pacific pond turtle requires both streams and intact adjacent upland habitats such as coastal sage scrub, woodlands or chaparral as part of their normal life cycle. The turtles spend about four months of the year in upland refuge sites located an average distance of 50 m (but up to 280 m) from the edge of the creek bed. Similarly, nesting sites where the females lay eggs are also located in upland habitats an average of 30 m (but up to 170 m) from the creek. Occasionally, these turtles move up to 2 miles across upland habitat[25]. 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[26]. 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[27]. Writing at the same time as Faber, Bowler asserted that, *"[t]here is no question that riparian habitat in southern California is endangered."*[28] 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[29]. Human-caused increased fire frequency has resulted in increased sedimentation rates, which exacerbates the cannibalistic predation of adult newts on the larval stages.[30] 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

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[24] 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*).

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

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

[27] 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.

[28] 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.

[29] 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.

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

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[31]. These introduced predators have eliminated the newts from streams where they previously occurred by both direct predation and suppression of breeding.

Therefore, because of the essential role that riparian plant communities play in maintaining the biodiversity of the Santa Monica Mountains, 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.[32] 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[33]. 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."[34] Several other researchers have noted the replacement of chaparral by coastal sage scrub, or coastal sage scrub by chaparral depending on fire

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

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

[33] 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).

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

history.[35] In transitional and other settings, the mosaic of chaparral and coastal sage 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[36]. New growth of chaparral evergreen shrubs takes place about four months later than coastal sage scrub plants and it continues later into the summer[37]. For example, in coastal sage scrub, California sagebrush flowers and grows from August to February and coyote bush flowers from August to November[38]. 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[39]. The insects in turn are followed by insectivorous birds such as the blue-gray gnatcatcher[40], 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

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[35] 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.

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

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

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

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

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

the Santa Monica Mountains[41]. Five species of hummingbirds also follow the flowering cycle[42].

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[43].

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[44]."

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

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[41] 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.

[42] 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

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

[44] 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[45].

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[46] 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[47] 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[48]. 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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[45] 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.

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

[47] 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.

[48] 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[49], 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[50], reduced diversity, and lower productivity.

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

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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[49] 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.

[50] 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.

distributed from the San Francisco Bay area to Mexico[51]. 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."[52]

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

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

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

[52] Ibid.

[53] 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 9th St., Sacramento, CA 95814.

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

[55] 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.

[56] 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.

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

[58] 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.[59] 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.[60] 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[61]. 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[62]. 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[63]. The rare red shank chaparral plant community also occurs in the Santa Monica Mountains. Although included within the category "northern mixed chaparral" in

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[59] Dr. John O'Leary, SDSU, personal communication to Dr. John Dixon, CCC, July 2, 2002
[60] Westman, W.E. 1981. op. cit.
[61] Dr. Stephen Davis, Pepperdine University. Presentation at the CCC workshop on the significance of native habitats in the Santa Monica Mountains. June 13, 2002.
[62] 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.
[63] 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[64].

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[65]. 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.[66]

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[67]. 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

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[64] Ibid.

[65] 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.

[66] Ibid.

[67] 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[68], so chaparral literally holds the hillsides together and prevents slippage.[69] 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[70]. Thus, the erosion from a 2-inch rain-day event drops from 5 $yd^3$/acre of soil one year after a fire to 1 $yd^3$/acre after 4 years.[71] The following table illustrates the strong protective effect of chaparral in preventing erosion.

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

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

Therefore, because of its important roles in the functioning of the Santa Monica Mountains Mediterranean ecosystem, and its extreme vulnerability to development, 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

[68] 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.

[69] 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.

[70] 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.

[71] Ibid.

tolerant of salt-laden fog than other oaks and is generally found nearer the coast[72]. 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[73]. These habitats support a high diversity of birds[74], and provide refuge for many species of sensitive bats[75]. 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

[72] NPS 2000. op. cit.
[73] 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.
[74] 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
[75] 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[76]. Mixed with these native needlegrasses are many non-native annual species that are characteristic of California annual grassland[77]. Native perennial grasslands are now exceedingly rare[78]. In California, native grasslands once covered nearly 20 percent of the land area, but today are reduced to less than 0.1 percent[79]. The California Natural Diversity Database (CNDDB) lists purple needlegrass habitat as a community needing priority monitoring and restoration. The CNDDB considers grasslands with 10 percent or more cover by purple needlegrass to be significant, and recommends that these be protected as remnants of original California prairie. Patches of this sensitive habitat occur throughout the Santa Monica Mountains 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[80].

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

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[76] 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.

[77] 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.

[78] 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.

[79] NPS 2000. op. cit.

[80] 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[81], 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[82], and computer simulation studies of the development patterns over the next 25 years predict a serious increase in habitat fragmentation[83]. 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[84]. 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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[81] 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.

[82] 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.

[83] 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.

[84] NPS, 2000, op. cit.

Workshop stated[85] "*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"[86]. Fuel removal is reinforced by insurance carriers[87]. 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[88] around the home. The combination of insurance incentives and regulation assures that the 200-foot clearance zone will be applied universally[89]. 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[90]. 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, wrentit, blue-gray gnatcatcher, California thrasher, orange-crowned warbler, rufous-crowned sparrow, spotted towhee, California towhee) and 3) urban-associated species

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[85] 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.

[86] 1996 Los Angeles County Fire Code Section 1117.2.1

[87] 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.

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

[89] 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.

[90] Ibid.

(mourning dove, American crow, Western scrub-jay, Northern mockingbird)[91]. 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[92].

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[93]. The Argentine ant competes with native harvester ants and carpenter ants displacing them from the habitat[94]. 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[95]. 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[96]. 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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[91] 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.

[92] 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.

[93] 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.

[94] 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.

[95] 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.

[96] 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[97].

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.[98] 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[99].

*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[100]. 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[101].

**Summary**

In a past action, the Coastal Commission found[102] 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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[97] Longcore, T.R. 1999. Terrestrial arthropods as indicators of restoration success in coastal sage scrub. Ph.D. Dissertation, University of California, Los Angeles.

[98] Christian, C. 2001. Consequences of a biological invasion reveal the importance of mutualism for plant communities. Nature 413:635-639.

[99] 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.

[100] . 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.

[101] Ibid, and Ecological Consequences of Artificial Night Lighting, Conference, February 23-24, 2002, UCLA Los Angeles, California.

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

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[103]. 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 chapparal (sic) or grassland. For example, hawks nest and roost in riparian areas, but are dependent on large open areas for foraging. For the survival of many species, particularly those high on the food chain, survival will depend upon the presence of such areas. Such areas in the Santa Monica Mountains include grassland and coastal sage scrub communities, which have been documented in the SEA studies as supporting a wide diversity of plant and animal life."

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.

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