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October 12, 1998

TO: Coastal Commission and Interested Persons

FROM: Steve Scholl, AICP, Deputy Director
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SUBJECT: **Background and Staff Note for the ReCAP Workshop**

Background: This project is the California Coastal Commission's second Regional Cumulative Assessment Project **(ReCAP)** and focuses on the Santa Monica Mountains/Malibu area. The Regional Cumulative Assessment Projects evaluate, on a regional basis, the implementation of California's Coastal Management Program (CCMP) and its effectiveness in managing cumulative impacts on new development on key coastal resources. The evaluation includes review and analysis of the implementation of both the Commission's program and procedures and those of local government's with certified Local Coastal Programs (LCPs).

Focus of the Report: In July 1997, the Commission identified the following key issues for the focus of ReCAP, recognizing that budget and staffing constraints precluded evaluation of every potential resource issue in the region:

- Cumulative impacts on resources from the concentration and location of development patterns, including some impacts to environmentally sensitive habitats and an analysis of the Commission's actions through the Transfer of Development Credit (TDC) program;
- Impacts on resources from shoreline armoring;
- Impacts to public coastal access, both inland and along the shoreline, from overall development in the region; and
- Consideration of enforcement issues as part of the evaluation for these issues.

As evidenced by the results of the ReCAP analysis, the Coastal Commission and local governments have achieved much success in implementing Coastal Act policies, protecting coastal resources and managing the cumulative impacts of development in the Santa Monica Mountains/Malibu area. A challenge facing the Commission is to continue to improve its coastal management efforts, in partnership with local governments to respond to new information presented in this report, especially in light of the limited staff and resources currently available. Implementing ReCAP recommendations will help meet the objectives of the federal Section 309 Enhancement Grant Program to achieve improvements in state coastal management programs.

Implementation of Recommendations: This report contains *different types* of recommendations which require different methods of implementation, including:

- changes the Commission can implement immediately through modifications in its own permit actions or procedures;
- recommendations to Ventura County for incorporation into its certified LCP;
- suggestions for Los Angeles County and the City of Malibu to assist with completion of their LCPs;
- recommended actions for other government agencies which may be addressed through intergovernmental coordination activities; and
- recommendations which in order to be implemented will require additional funding, additional staff, or legislative authorization.

Recommended Public Review: At the Public Workshop staff will present the Preliminary Draft report for review and comment. **Staff recommends that the Commission take public comments on the report at the Workshop and for a 30-day period following the workshop, through December 4, 1998.**

Copies of the report are being distributed to the local governments in the project area and to public agencies mentioned in the report's recommendations. Public Notice of the availability of the document is being mailed to a ReCAP Mailing list of Interested Persons. Because of the cost associated with duplicating the document, there will be a nominal charge for copies of the report. However, the document and graphics will be posted on the Commission Web site, where, hopefully, many members of the public will be able to access the report free of charge.

ReCAP staff will be sharing the data developed as part of this project with the County of Los Angeles and the City of Malibu to assist in their LCP planning, as well as with Ventura County and other regional and federal agencies.

Commission Review: Since this preliminary report has not yet undergone public review prior to this Workshop, **staff is not recommending nor expecting the Commission to take any action on the recommendations at the November Hearing**. As part of the Commission's FY 98/99 federal Section 309 Enhancement Grant work program, staff is required to revise the Santa Monica Mountains/Malibu Area ReCAP report in response to Commission and public comments and to develop an *Implementation Strategy and Action Plan* for carrying out *priority* recommendations. The Implementation Strategy will consider any feedback and direction from the Commission's review of this report, the comments and input on this report received from local government, other agencies and the public and available staffing and funding resources, as some of the recommendations suggested in this report may be dependent upon obtaining *additional* staff or funding. **Any recommendations which require Commission adoption will be scheduled for Commission review and action as part of the Implementation Strategy in early 1999.**

ReCAP Pilot Project
Preliminary Draft Findings and Recommendations
Santa Monica Mountains/Malibu Area

California Coastal Commission
Regional Cumulative Assessment Project
October, 1998

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Chapter 1: Introduction

BACKGROUND TO THE REGIONAL CUMULATIVE ASSESSMENT PROJECT

This project is the California Coastal Commission's second Regional Cumulative Assessment Project **(ReCAP)** and focuses on the Santa Monica Mountains/Malibu area. The Regional Cumulative Assessment Projects evaluate, on a regional basis, the implementation of California's Coastal Management Program (CCMP) and its effectiveness in managing cumulative impacts to key coastal resources. The evaluation includes review and analysis of the implementation of both the Commission's program and procedures and those of local government's with certified Local Coastal Programs (LCPs).

> ***Cumulative Impacts*** are the combined effects of a series of development activities or natural effects. Although an individual project may not greatly affect the natural or human environment, the cumulative impacts created by many different projects over time may significantly alter these environments. For example, the conversion of coastal habitat to developed land from an individual project may not seem that significant. However, multiple development projects may collectively degrade important habitat values.

The ReCAP process is designed to improve the management of the cumulative impacts of coastal development and to help keep programs and policies effective and up to date. The direction to conduct a ReCAP review is based, in part, on the Commission's mandate to periodically review the implementation of Local Coastal Programs (LCPs) pursuant to Section 30519.5 of the Coastal Act. The ReCAP process focuses on 1) identifying priority coastal resource issues; 2) identifying what impacts to these resources (both positive and negative) have occurred as a result of development; 3) evaluating the factors contributing to these impacts, including actions authorized under the CCMP; and 4) developing and implementing recommendations to respond to the impacts identified. This current ReCAP is also intended to develop a compendium of information to assist both Los Angeles County and the City of Malibu in completing their LCPs.

The Commission's first ReCAP was undertaken as a pilot project in the Santa Cruz/Monterey Bay area in 1995, with federal funding provided by the 1990 amendments to the federal Coastal Zone Management Act. The Monterey Bay ReCAP resulted in numerous program improvements implemented through Commission action on permits, local government LCP amendments and modifications to the Commission's management program. From this first pilot project, Commission staff also developed a basic methodology for use in undertaking additional ReCAPs in other areas of the coastal zone. This methodology is detailed in the *Procedural Guidance Manual for Conducting Regional Periodic Reviews* (January 1997).

As indicated in this report, the CCMP has accomplished much in mitigating cumulative impacts through its review of specific development projects. Periodic reviews offer yet another opportunity to further address the cumulative impacts of combined projects over time. Regional reviews and the data collection that results can help coastal managers: 1) improve review of specific development proposals; 2) link individual sites and development proposals to the larger regional resource trends; 3) develop additional policy and intergovernmental tools to address cumulative and secondary impacts; and 5) help develop programs that manage coastal resources in the most effective manner possible.

THE SANTA MONICA MOUNTAINS/MALIBU ReCAP

The Santa Monica Mountains/Malibu ReCAP study area extends from near Point Mugu in Ventura County to Topanga Canyon in Los Angeles County. The coastal zone forms the northern (inland) boundary (see Figure 2-1). Rugged terrain, sensitive resources, and existing patterns of land division combine to make planning for growth and managing cumulative impacts in the region challenging.

Within this area, only the County of Ventura has a certified LCP. The County of Ventura has been issuing coastal permits for its jurisdiction since 1983. The Commission certified a Land Use Plan (LUP) portion of the LCP for the Los Angeles County portion of this ReCAP area in 1986; however, the implementation portion of the LCP was never completed, and thus the authority to issue coastal development permits was never transferred.

> Under California's Coastal Management Program, local governments are required to develop local coastal programs (LCPs) that include land use policies consistent with the policies of the Coastal Act and implementing zoning ordinances. Once developed, these plans are reviewed and certified by the Coastal Commission. After an LCP is certified, most general permitting authority is returned to the local government, with the Commission retaining jurisdiction over some permits and hearing appeals from local decisions. LCPs can be completed in phases and a land use plan (LUP) is the first phase of a full LCP. However, until a complete LCP is certified, and the local government assumes coastal permit authority, the LUP is only guidance and Chapter 3 of the Coastal Act remains the standard of review for the Commission in permit actions.

Coastal resource planning and management was affected by the incorporation of the City of Malibu in 1991, which created a new jurisdiction that did not exist at the time of the preparation of the Los Angeles County LUP. The City of Malibu has not yet completed an LCP for their jurisdiction and the previously approved L.A. County LUP has not yet been updated to reflect the changed circumstances. Therefore, for most of the ReCAP area, the Commission retains permit authority. The ReCAP effort is timely in this region because both L.A. County and the City of Malibu are gearing up to complete their LCPs. The Commission recently awarded a planning grant to the County of Los Angeles to assist

them in that effort. A grant application for the City of Malibu is pending before the Commission.

THE CUMULATIVE IMPACT ISSUES

In July 1997, the Commission identified the following key issues for the focus of ReCAP, recognizing that budget and staffing constraints precluded evaluation of every potential resource issue in the region:

- Cumulative impacts on resources from the concentration and location of development patterns, including some impacts to environmentally sensitive habitats and an analysis of the Commission's actions through the Transfer of Development Credit (TDC) program;
- Impacts on resources from shoreline armoring;
- Impacts to coastal access, both inland and along the shoreline, from overall development in the region; and
- Consideration of enforcement issues as part of the evaluation for these issues.

> ***Coastal Access*** in general terms refers to the ability of the public to reach, use or view the shoreline of coastal waters or inland coastal recreation areas and trails.

Selection of these issues was based on information from a variety of sources. The Commission's *Review of the Malibu/Santa Monica Mountains Transfer of Development Credit (TDC) Program, April 1996,* raised a number of issues resulting from two public workshops on the operation of the Commission's TDC program. In that report, staff noted that there were a number of areas where additional evaluation, data collection and other planning studies would be needed to consider possible revisions to the TDC program. ReCAP's evaluation of the TDC program is intended to address some of the issues raised in the 1996 report.

Public access to the shoreline has historically been a critical, if controversial, issue in the Malibu area. The continuing conflicts in protecting and providing maximum public access along the shoreline evidenced in the Commission's regulatory reviews provided impetus for examination of the cumulative effects of development on public access as well as the impacts of shoreline structures on public access.

The issue selection was also based on results of a workshop held June 5, 1997, with local government and public agencies, Commission staff's knowledge of the issues, and comments made at the Commission's public hearing on the issue selection. Staff believes this ReCAP project builds on the preceding efforts to examine coastal resource issues in the Santa Monica Mountains/Malibu area.

The data used in this project came from a variety of sources, with the major sources being Commission and local government permit actions. The report evaluates data from 1978 through 1996. As a critical component in evaluating cumulative impacts of development including the TDC program, Commission staff developed a Geographic Information

System (GIS) for the project area, comprised of data layers derived from Commission data and layers obtained from other local and regional sources, including the National Park Service. This GIS allows the Commission staff to undertake spatial analysis of permit data at a level not previously possible and facilitates the sharing of coastal permit data among local and regional agencies. It is expected that many of the data layers derived from Commission data can be used by local government in their LCP planning, since both L.A. and Ventura Counties and the City of Malibu have GIS capabilities.

THE ReCAP REPORT AND RECOMMENDATIONS

This document contains the preliminary results of the ReCAP's assessment of cumulative impacts and preliminary recommendations to improve coastal policies and procedures to address these impacts. The report begins with an overview of the ReCAP project area and summary of development activity that has occurred since 1978. This is followed by a spatial analysis of development patterns and scenarios describing the potential for additional growth. Recommendations on how to improve the Commission's procedures and local government's procedures to manage ongoing development in the region are presented. Analysis of coastal access and of shoreline armoring follow the development section.

The report includes *different types* of recommendations including:

- changes the Commission can implement immediately through modifications in its own permit actions or procedures;
- recommendations to Ventura County for incorporation into its certified LCP;
- suggestions for Los Angeles County and the City of Malibu to assist with completion of their LCPs;
- recommended actions for other government agencies which may be addressed through intergovernmental coordination activities; and
- longer-term recommendations which may require additional funding, additional staff, or legislative authorization.

As part of the federal FY 98/99 Section 309 grant, the staff will be developing an Implementation Strategy for this ReCAP. The Implementation Strategy will consider any feedback and direction from the Commission's review of this report, the comments and input on this report received from local government, other agencies and the public and available staffing and funding resources, as some of the recommendations suggested in this report may be dependent upon obtaining *additional* staff or funding.

A NOTE ON THE DATA

Reviewing almost twenty years of Commission actions was a challenging task, especially when the Commission, until the last few years, lacked any means to systematically store

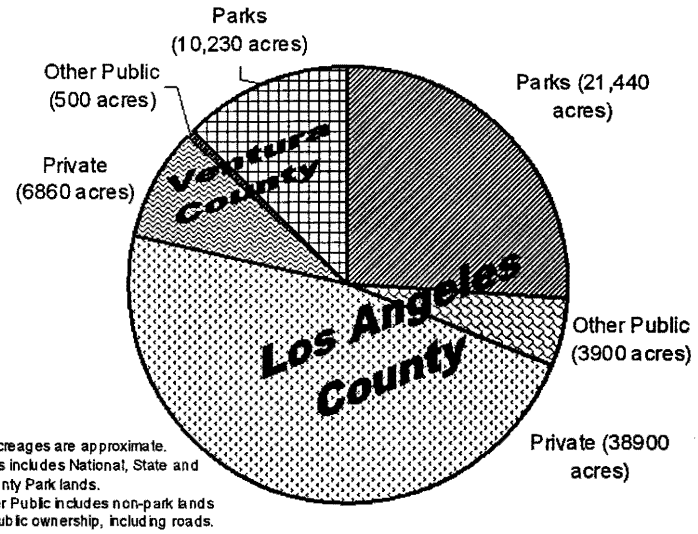
and retrieve data electronically. For its analysis, ReCAP staff relied primarily on 1) the Commission's written staff reports and findings, and 2) the Commission's written logs of permit actions. These sources comprised the most accessible sources of data. However, ReCAP staff found that there was no easy or consistent way within the scope and resources of the project to document whether Commission approved permits had actually been issued and the applicable project built. As a result, the ReCAP database tracks only Commission *actions*. Where possible, other sources of data were used to try to determine whether a project was actually constructed. Discussions of the data sources, the assumptions staff relied upon and the limitations of the data are discussed both in the report and in the technical appendix.

Chapter 2: Regional Overview

The Santa Monica Mountains/Malibu area is located west of Los Angeles along California's southern coast. The Santa Monica Mountains are part of the Transverse Ranges, the only east-west belt of mountains in California, and extend from the Oxnard Plain east to the Los Angeles River. A coastal terrace of varying width extends from the base of the mountains to the sea. The Santa Monica Mountains support a Mediterranean ecosystem that is found in only four other areas of the world. This ecosystem comprises 26 distinct natural communities, including wetlands, riparian, oak woodlands and savannas, coastal sage scrub, and chaparral. Hundreds of identified archaeological sites are found in the Santa Monica Mountains. A wide variety of recreational opportunities exist in the area including picnicking, hiking, horseback riding, mountain biking, camping, fishing, nature study, surfing and swimming. The beaches of Malibu are world-famous tourist destinations for millions of visitors annually. Malibu and the Santa Monica Mountains have long formed a backdrop for films and television, epitomizing the California beach lifestyle.

The ReCAP study area is defined by the coastal zone extending from the edge of the Calleguas Creek watershed in Ventura County to the City of Los Angeles boundary (see Figure 2-1). The project area comprises approximately 81,850 acres of land, 44% of which is publicly owned (Figure 2-2). The coastline of the project area consists of 32 miles of bluffs, sandy beaches, and rocky intertidal areas, and encompasses public parks and beaches as well as areas of private development. Much of the private development along the shore is protected by seawalls or other types of shoreline armoring. The mountainous portion of the ReCAP study area includes public parkland, areas of relatively low-density, rural development, and a number of "rural village" areas with clusters of small lots. The density and intensity of development

Figure 2-2:
Ownership Patterns in the ReCAP Study Area



Sources: County assessor's data via TRW Experian, National Park Service

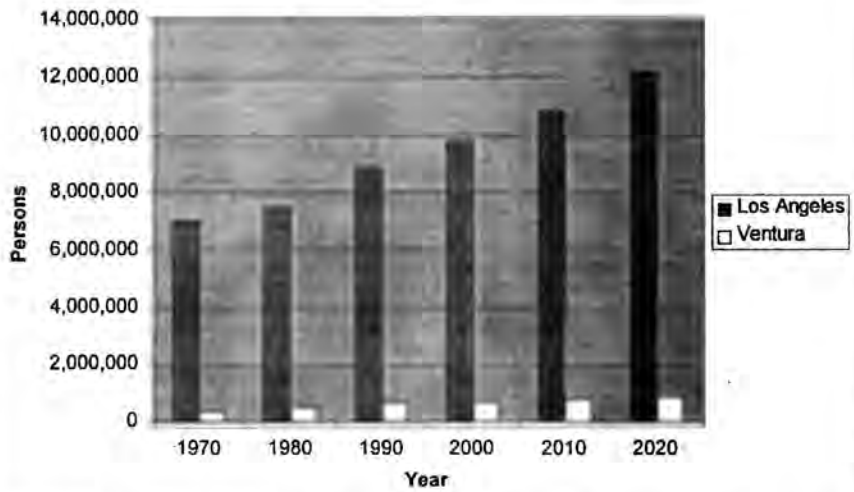
generally increases from west to east as one travels from the more rural Ventura County area across Malibu toward Los Angeles.

POPULATION

In analyzing the population changes affecting the project area, it would be useful to analyze both the population trends within the coastal zone and those of the region as a whole. However, data available from the U.S. Census Bureau and other sources are not organized in a way that makes it possible to capture just the population within the coastal zone. Therefore, this analysis primarily uses the figures available for Los Angeles and Ventura County which contains significantly more area than the ReCAP study area. In the case of Los Angeles County, the coastal areas constitute a small percentage of the overall area contained within the county which extends north to the Antelope Valley and east to Pomona. In the case of Ventura County, most of the existing development is located on the coastal plain, with a few population centers in the mountains to the north. A large percentage of Ventura County within the study area is contained within a national forest. Nonetheless, the County population figures are representative of increased population pressure in the surrounding area which translate to increased development pressure and demand for coastal access and recreation within the project area.

As Figure 2-3 shows, there has been significant population increase over the project period, particularly in Los Angeles County. While Ventura County experienced a higher percent of change in population from 1970 to 1990 (77%), Los Angeles County had a much higher existing population base, resulting in a much higher numeric increase (1.8 million) over the period.

Figure 2-3: Population Growth Los Angeles and Ventura Counties 1970 - 2020

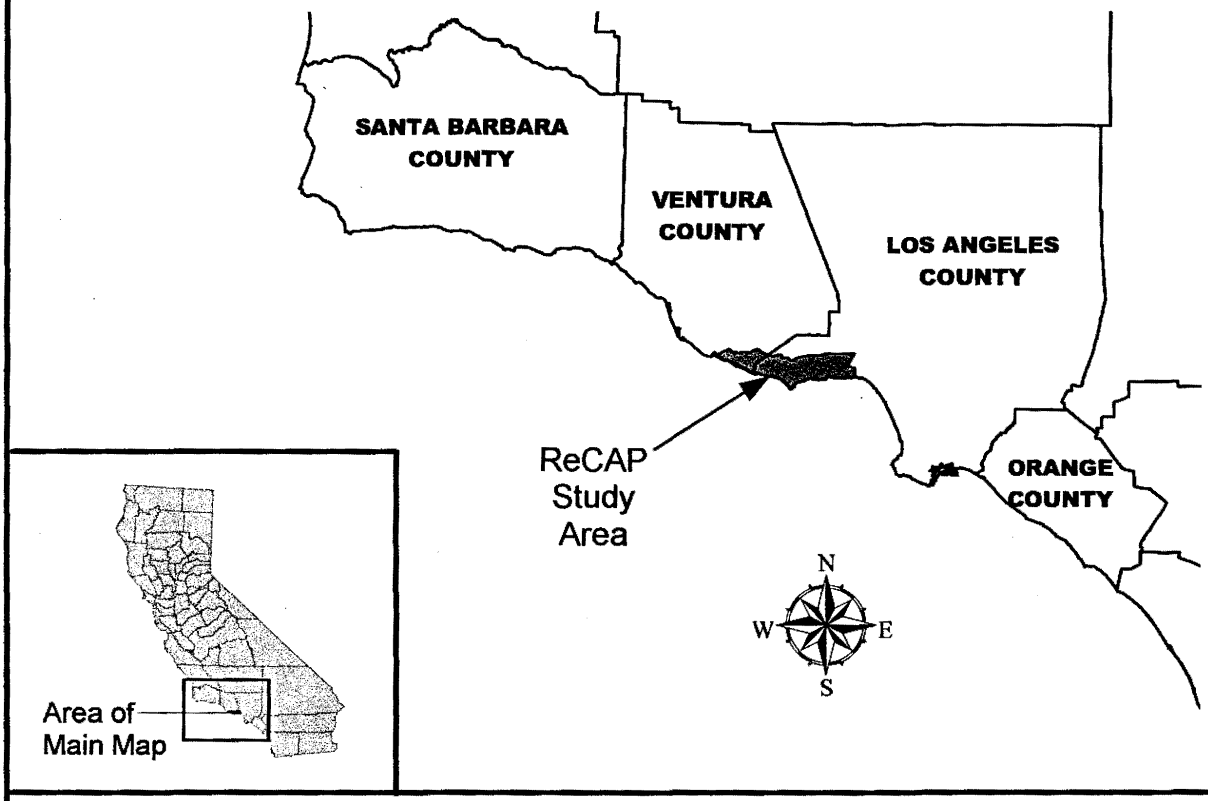


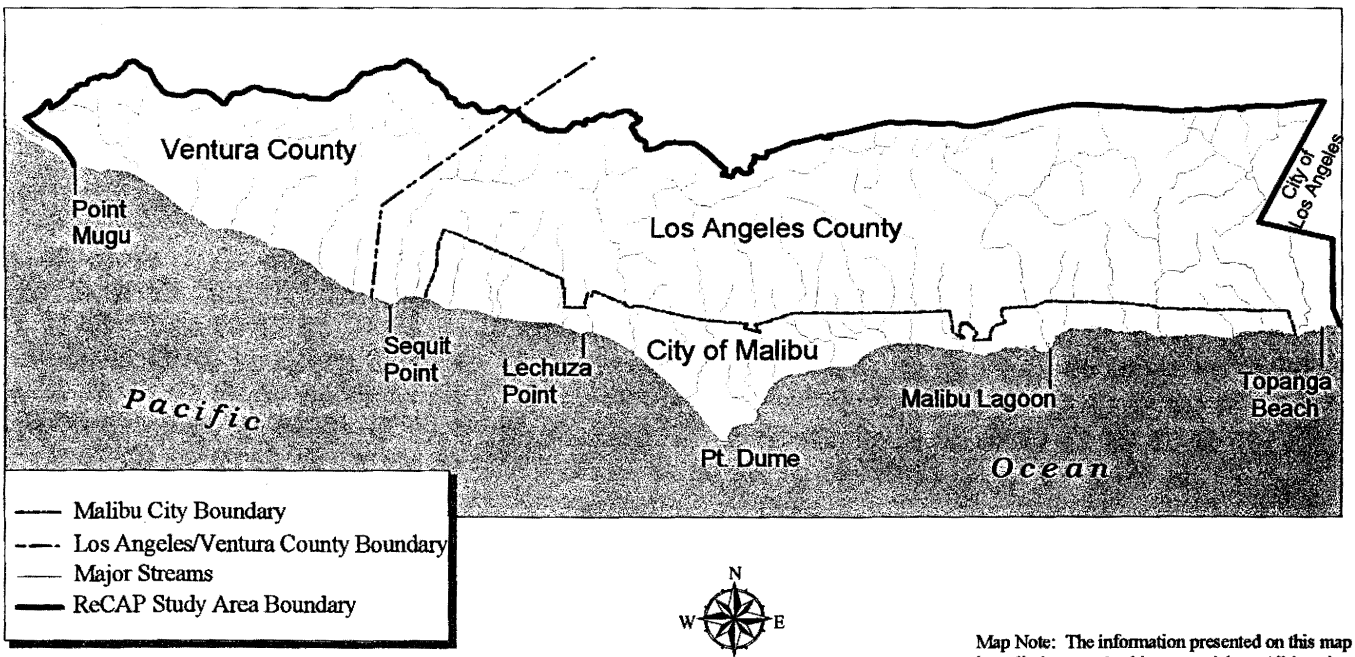
Sources: US Census Bureau, Southern California Association of Governments

Projections of future population growth indicate that Los Angeles County is expected to maintain about the same rate of increase (25% change from 1970 to 1990, and 23% change expected from 1990 to 2010). If this projection holds true, the population of L.A. County will grow by almost 2 million people from 1990 to 2010. Ventura County growth is projected to be at a much lower rate of increase (77% change from 1970 to 1990, and 20% change from 1990 to 2010). If this projection holds true, just over 135,000 people would be added to

Figure 2-1
Preliminary Draft

Figure 2-1: Location of Santa Monica Mountains / Malibu Area Regional Cumulative Assessment Project (ReCAP)





California Coastal Commission
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Source: California Coastal Commission, 1998.

the County's population from 1990 to 2010. Such ongoing population growth will increase the regional need for housing, jobs, roads, services, infrastructure, water, parks and recreational areas. Within this context, the Malibu/Santa Monica Mountains area will continue to provide recreational opportunities not only for local and regional visitors, but also for state, national, and international visitors.

LAND USE PLANNING AND REGULATORY AUTHORITIES

There are three local governments that have jurisdiction over development within the ReCAP area: the County of Ventura, the County of Los Angeles and the City of Malibu.

The County of Ventura has jurisdiction over the eastern portion of the ReCAP area. In October 1983, Ventura County's LCP was effectively certified and the County assumed permit-issuing authority. Since that time, the Commission has approved 19 amendments (9 major, 9 minor, and 1 de minimis) to the certified LCP (for the entire Ventura County area, including the ReCAP area).

The Malibu/Santa Monica Mountains area is one of five segments making up the County of Los Angeles Coastal Zone.[1] The County originally submitted the Malibu/Santa Monica Mountains Land Use Plan (LUP) in December 1982. The LUP was resubmitted twice following Commission actions to deny the LUP as submitted and adopt suggested modifications. The Commission certified the revised LUP as re-submitted on December 11, 1986. The County of Los Angeles has submitted only two amendment requests to the certified LUP.[2] To date, no Implementation Plan for the Malibu/Santa Monica Mountains segment has been submitted, so the County has never been granted coastal development permit authority.

From the time of certification of the LUP until 1991, the coastal zone in the County of Los Angeles included both the coastal terrace and the mountain areas. Although not legally bound by the LUP, the Commission used the LUP as guidance when making coastal development permit decisions for this entire area. In 1991, the City of Malibu was incorporated, generally covering the coastal terrace portion of the area previously included in the Malibu/Santa Monica Mountains LUP. The City has adopted a General Plan and completed part of the Issue Identification phase of LCP planning. Because L.A. County's LUP represented the Commission's determination of appropriate policies at the time of certification in 1986, the Commission still consults the LUP for guidance when reviewing permit applications within and outside of the City of Malibu.

The Commission recently approved an LCP planning grant for the County of Los Angeles to fund the first phase of a two-phase completion of the LCP for the area remaining in its jurisdiction. The first phase will consist of updating the LUP to reflect

[1] The other segments are Marina del Rey, Playa Vista "A", Santa Catalina Island, and Los Cerritos Wetland.

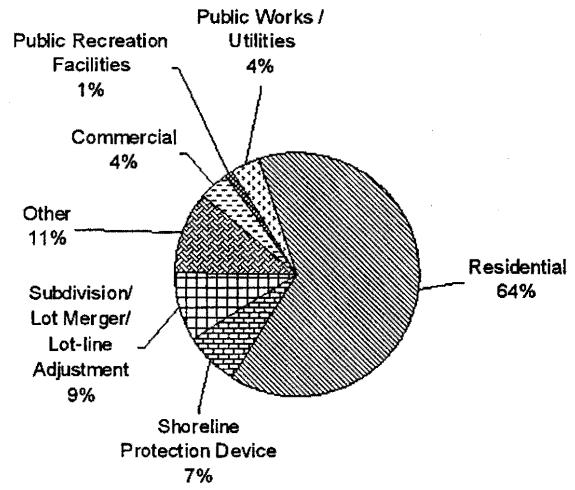
[2] The County withdrew Amendment 1-91 prior to consideration by the Commission. Amendment 1-97 was approved in 1997 for the Soka University property.

the changed circumstances of city incorporation and the second phase will be the development of implementing ordinances. A grant application for the City of Malibu to develop an LCP is pending before the Commission.

REGULATORY OVERVIEW/PROJECTIONS

ReCAP's analysis of permit records for the period from 1978 through1996 indicates that the Commission acted on approximately 4,360 coastal permit applications within the project area.[3] An additional 792 items[4] were reviewed by the County of Ventura under its LCP from 1983 to 1996. The Commission approved almost 90 percent of all actions considered, most as conditional approvals. The projects reviewed included new residences, new commercial or office uses, subdivisions, lot line adjustments, private and public recreation improvements, shoreline protective devices, and additions/remodels of existing development.

Figure 2-4: Distribution of Coastal Commission Actions by Development Type Santa Monica Mountains/Malibu Coastal Zone 1978-1996



Source: ReCAP permit database

Sixty-four percent of the Commission's permit actions were for residential uses, by far the greatest number for any category (see Figure 2-4). The Commission approved the creation of 957 new parcels through subdivision and the development of 2,900 new residences within the project area. Another 15 lots were legalized by the Commission through the review of the issuance of certificates of compliance. Ventura County approved the creation of 14 lots and 136 new residences in post-certification permits, and legalized an additional 29 lots through certificates of compliance. Fifty-four percent of the new parcels and thirty-four percent of the new residences were approved in or near existing developed areas on the coastal terrace.[5] The remaining percentages of new parcels and residences were located in mountain or canyon areas outside the terrace.

[3] This includes actions within the Ventura County portion of the study area prior to certification of the Ventura County LCP in 1983. The number does not include waivers, exemptions, permit extensions, applications withdrawn or returned as incomplete, and a few other categories. See Technical Appendix for further details of what was included in the ReCAP permit database.

[4] This number overstates the amount of physical development proposed in the Ventura County portion of the ReCAP study area because it includes items such as temporary filming permits. In addition, the County issues more than one type of permit for a given project.

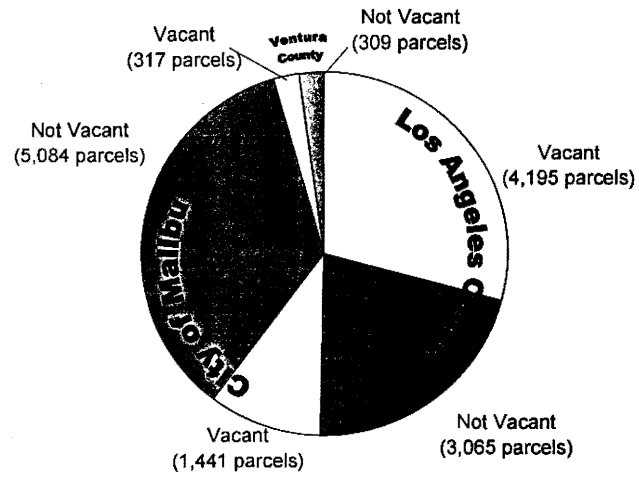
[5] These areas were mapped for illustrative purposes in the Commission's 1981 District Interpretive Guidelines for the Malibu-Santa Monica Mountains and included in the L.A. County LUP. Figure 3-1 in

Utilizing a Geographic Information System (GIS) constructed for the project area, ReCAP staff evaluated existing patterns of development and assessed future development potential based on current land use plans for the region.[6] ReCAP found that:

> A ***Geographic Information System (GIS)*** is a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information. A GIS allows analysis of spatial relationships between many different types of features based on their location in the landscape. For example, using parcel boundaries and topography, a GIS can be used to calculate slopes and then display parcels with slopes greater than 25%.

- If future development occurred to the maximum densities shown on current land use plans, the result would be nearly a doubling of the number of residential units, from approximately 9,400 existing units to almost 17,400.
- More than 5,600 privately owned vacant parcels exist in the ReCAP area, the vast majority of which are located in the mountainous unincorporated section of Los Angeles County (see Figure 2-5).
- Under current land use plan densities, a total of 941 existing lots are of a size that could potentially be subdivided, creating a total of 3,380 new parcels.
- Second units and legalization of previously created but unrecorded lots could add hundreds of additional units.
- In general, parcels available for future development have significantly greater constraints -- such as steep slopes and sensitive resources -- than do the parcels where the Commission has previously approved development.

Figure 2-5: Distribution of Privately Owned Vacant and Developed Parcels in the Malibu/Santa Monica Mountains Coastal Zone



Source: ReCAP GIS, County Assessor's data via TRW Experian system

These findings are discussed in more detail in Chapter 3 of this report.

The amount of potential future development, coupled with topographic, infrastructure and resource constraints, suggest that there is a potential for significant cumulative impacts from new development in the Malibu/Santa Monica Mountains area. This report presents

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Chapter 3 of this report shows the location of these mapped areas. For a more detailed discussion of Existing Developed Areas, see Chapter 3.

[6] Ventura County's LCP, the City of Malibu's General Plan zoning, and the L.A. County LUP for the portion of L.A. County outside the City of Malibu.

recommendations for program improvements to improve the management of potential cumulative impacts of future development in the Malibu ReCAP area.

Chapter 3: Concentration and Location of Development

OVERVIEW

In carrying out the Coastal Act, the Commission reviews new development proposals for compliance with policies which govern the location and amount of new development in the coastal zone and requires that cumulative impacts from development are mitigated to assure the protection of coastal resources.[1] Several planning studies done for the Commission in the late 1970s (Williams and Bricker, 1978; McClure, 1979) identified the potential for cumulative impacts as a major concern in the Santa Monica Mountains coastal zone. The concern originated from several factors:

> Unless specifically noted in the text, the terms "***parcel***" and "***lot***" are used interchangeably in this report.

1) the large number of lots (12,685) then in existence in the Los Angeles County portion of the Santa Monica Mountains coastal zone;
2) the presence of numerous small lots in existing "rural villages"; and
3) the significant constraints to development on many of the existing parcels, including the presence of sensitive resources, steep slopes, limited infrastructure, and periodic wildfires.

These studies found that about two thirds of the existing parcels were vacant, and that buildout of these existing parcels would lead to significant cumulative impacts on coastal resources, including public access, water quality, and sensitive habitat. Development of the lots in the "rural villages" (referred to as small lot subdivisions in this report) were especially problematic. With steep slopes and average lot sizes ranging between 4,000 and 7,000 square feet, the ability to site development within the small lot subdivisions to avoid impacts to resources is limited. Further, if fully developed, the densities in these small lot subdivisions would exceed the capacity of the narrow winding access roads and the local watershed's ability to assimilate the septic system effluents. These studies also recognized that the creation of additional lots through new subdivisions would add even more to the overall density of the region and lead to additional cumulative impacts. In their 1978 analysis of the Santa Monica Mountains region, Williams and Bricker state:

> [D]ue to the cumulative impacts of development in the Santa Monica Mountains on coastal resources, ... land divisions should be permitted ... only in cases where the cumulative adverse impacts on coastal resources are mitigated elsewhere [in the coastal zone of the Santa Monica Mountains] through such means as lot

[1] Public Resource Code Section 30250-30255.

> combinations and/or transferable development credits, with the total developable lots in the study area being the same or less after the division (pg. xi).

Section 30250 of the Coastal Act specifies that new development shall be located "within, contiguous with, or in close proximity to, existing developed areas" and that "land divisions shall be permitted only where 50 percent of the usable parcels in the area have been developed…". This policy serves to focus development in areas with available services and reduce the spread of development into rural regions. The Commission's District Interpretive Guidelines (1981) described the boundaries of existing developed areas (EDAs) (Figure 3-1) and also explained the term "usable parcels" as areas which could "physically be developed under applicable land use regulations," (CCC 1981a, pg. 25) excluding park lands or areas otherwise restricted from development. As described in the Commission's 1981 Interpretive Guidelines, the area of useable parcels included "all of the Malibu-Santa Monica Mountain coastal zone west of the City of Los Angeles, east of Point Mugu and outside of the designated existing developed areas" (CCC 1981a, pg. 26). In 1981, only approximately 23% of the existing parcels in the area were developed, thus indicating that any new land divisions outside of the identified EDAs may not be consistent with the Coastal Act (CCC 1981a).

Based on Section 30250 of the Coastal Act, and the cumulative impacts that would occur from creating additional development potential in the region, the Commission denied a number of proposed subdivisions in the Santa Monica Mountains coastal zone in the mid-1970s. Faced with continuing applications for subdivision, and development in general, the Commission needed to address the cumulative impacts of growth in the region. To do so, the Commission had to address the most appropriate location and densities for development. To mitigate the increased densities from new subdivisions, the Commission developed, and implemented through its permitting authority, a transfer of development credit (TDC) program for the Los Angles County portion of the Santa Monica Mountains, including the area now within the City of Malibu. As explained in the Commission's Interpretive Guidelines "the [TDC] program is designed as a method of mitigating the adverse cumulative effects of new land divisions in the Santa Monica Mountains/Malibu coastal zone. Absent such mitigating measures no new land divisions could be found consistent with the provisions of the Coastal Act..." (CCC, 1981a, pg. 27; CCC, 1978a,b).

The process for the TDC program is discussed later in this chapter; however, in general, the program requires that for each new lot created under an approved subdivision, the applicant must extinguish, or retire, the development potential of existing lot(s). This mechanism not only keeps the ultimate density in the overall region from increasing, but focuses development in the more suitable areas (receiver areas) by retiring lots in those areas less suitable for development (donor areas). Initially, the program focused on ten of the existing small lot subdivisions as donor areas. As previously noted, these lots face significant constraints to development and, if developed, would lead to significant cumulative impacts on resources (McClure, 1979). The program was later expanded to include parcels within significant watersheds and environmentally sensitive habitat areas (CCC, 1981a; CCC, 1996a).

In addition to addressing cumulative impacts from increased densities, the Commission needed to address the cumulative impacts from development specifically *in* small lot subdivisions. In his analysis, McClure noted that the size of the existing lots in small lot subdivisions prevented "on-site mitigation" for impacts from development, and notes that "[s]ince many of these small lots are composed of uniformly steep slopes and there is no 'best building site,' larger lots often present the builder a better choice for house placement" (McClure, 1979). To address this problem, the Commission developed a slope intensity/gross structural area (GSA) formula. As described in the Commission's Interpretive Guidelines (1981a), use of the GSA formula "is intended to limit the size and intensity of residential development corresponding with the size and slope of the land" (pg. 13). By correlating the building size to the parcel size and slope, the GSA formula provides incentives to develop a single residence on more than one lot, allowing better site development on a larger parcel. The incentives of the GSA formula also reduce overall density buildout in the region, further reducing cumulative impacts on resources by reducing the extent of development, septic systems, and traffic. Although both programs focus mitigation in the small lot subdivisions, the TDC and GSA work as separate programs, mitigating the impacts from different types of development.

Finally, the Commission has used several other mechanisms to address the cumulative impacts of buildout, including:

1) denying permit proposals to extend roads and water lines into undeveloped areas;
2) analyzing development proposals on a case by case basis, occasionally denying proposals, but more often requiring modifications (such as reductions in the amount of grading) or attaching conditions to the permit that allow development to proceed with fewer impacts to coastal resources;
3) reviewing planning designations in the Land Use Plan (LUP) for Los Angeles County to recommend a reduction of the allowable density of development over much of the mountainous area; and
4) certifying a Local Coastal Plan (LCP) for Ventura County that also addressed density of new subdivisions in the mountains.

The development pressures in the Ventura County portion of the ReCAP area have historically been less than in the remainder of the area. Similar to the Los Angeles County portion, development in the Ventura County portion of the project area is also constrained by a limited infrastructure (County of Ventura, 1994). Mountain roads within the area are generally substandard and subject to slides and erosion. The Ventura County certified LCP regulates new subdivisions by limiting the extension of public services (roads, water, and sewer), and through the use of a slope intensity formula.

Development within the Region from 1978 to 1996

Under the policies and mitigation measures discussed above, the Commission approved 2,900 new residential units in the entire ReCAP area from 1978 through 1996. Since certification of its LCP in 1983, Ventura County approved an additional 136 residential

units. An additional 431 second units have been approved in the project area. Approximately 24% of the new units are located within the EDAs as described in the Commission's District Interpretive Guidelines for the Malibu-Santa Monica Mountains (1981a) (see Figure 3-1). An additional 10% of the approved residential units have been located in those areas identified as "Potential Expansion to EDA" areas. Although the Coastal Act policies seek to concentrate development, and the Commission's 1981 Interpretive Guidelines illustrated the EDAs as guidance for where development should be concentrated, encouraging residential development to be located in these areas as a result of Commission permit actions, has been difficult due to the large number of existing residentially zoned parcels. Approximately two-thirds of the residential units were approved outside of the areas described in the Interpretive Guidelines as EDAs and Potential Expansion areas.

> ReCAP staff included as ***second units*** those units on a lot with an existing primary residential unit. Second units may lack full facilities, such as kitchens.

From 1978 through 1996, the Commission approved the creation of approximately 960 new lots through subdivisions in the ReCAP project area. Since certification of its LCP, Ventura County approved an additional 14 new lots through new subdivisions, and legalized an additional 44 lots through certificates of compliance. Twenty-four of these lots were non-conforming lots. Approximately 529 of the lots approved through subdivisions (54%) are located within or contiguous to the areas identified as EDAs or Potential Expansion Areas in the Commission's 1981 Interpretive Guidelines. In addition, the average size of new lots created within EDAs was smaller (0.8 acres) than the size of lots approved outside of EDAs (5.3 acres average), consistent with the intent of concentrating development in existing developed areas.

> A ***certificate of compliance*** is a document issued and recorded by a local agency certifying that the subject parcel is a legal lot that complies with the requirements of the Subdivision Map Act and related local ordinances or certifying that the lot will comply with such requirements upon satisfaction of certain conditions.

ReCAP staff used the EDAs and the "usable parcels" as discussed in the Interpretive Guidelines as a means of describing and understanding the development patterns occurring in the ReCAP region. Based on ReCAP staff's estimates, the percentage of "usable parcels" that were developed rose from 23% to 42% since 1981. This change is due in part to development approved by the Commission and local governments and, in part, due to the elimination of large areas from the calculation due to park land acquisition (see Figure 4-1, Chapter 4). Based on its analysis, ReCAP found that the percentage of parcels developed is still below 50%. This indicates that when evaluated for compliance with the policy in Section 30250, new subdivisions in the Santa Monica Mountains coastal zone outside of existing developed areas may not comply with that provision of the Act. However, the 50% threshold would be reached if an estimated 653 additional parcels outside of the official EDAs become developed, or sooner if the total number of usable parcels is reduced through lot retirement or parkland acquisition. Regardless of when the 50% threshold is reached, the cumulative impacts of development

Figure 3-1
Preliminary Draft

Regional Cumulative Assessment Project:
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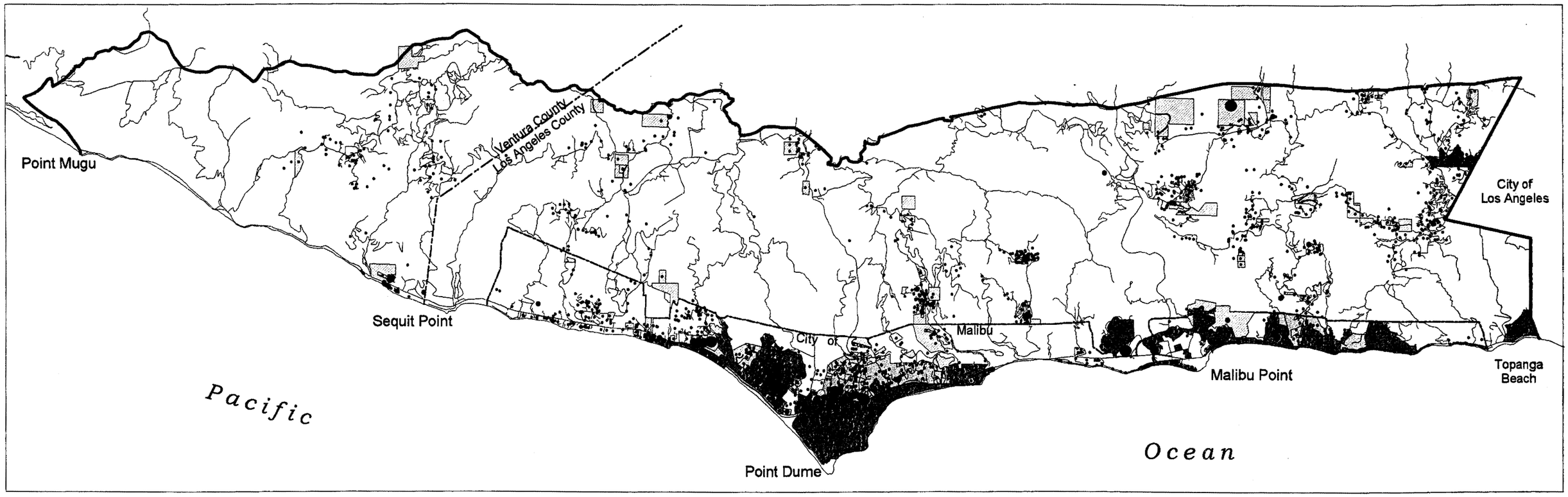
New Development Approved in the Santa Monica Mountains Coastal Zone 1978-1996



New Residential Units per Development Permit
- 1 - 2 units
- 3 - 10 units
- 11 - 25 units
- 26 - 50 units
- >50 units

Approved Subdivisions
Existing Developed Areas
Potential Expansion to EDAs

ReCAP Study Area Boundary
Roads
Malibu City Boundary
Los Angeles/Ventura County Boundary

N W E S

0 1 2 3 4 5 Miles

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: EDAs and Potential Expansion Areas from District Interpretive Guidelines, Malibu - Santa Monica Mountains, California Coastal Commission, 1981. Subdivisions and new homes from ReCAP Permit Database, 1998.

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in the region will continue to occur, due to the total number of parcels in the region and the constraints to development initially identified in the late 1970s, and will need to be mitigated. Therefore, the Commission and local governments face a growing need to address the cumulative impacts of growth by managing any increase in the overall number of new lots that can be created and addressing the impacts of development of existing lots.

Potential Buildout Scenarios

Currently, the ReCAP study area supports an estimated 9,300 residential units (See Figure A-1, in the Appendix). Based on the allowed development in the land use planning documents for the area,[2] an additional 8,400 new units could be built, nearly doubling the level of development (see Table 3-1, next page, and Figure A-2, in the Appendix). Most of this development potential lies in the overall Malibu/Los Angeles County portion of the ReCAP area. In the mountainous portion of the area within the County of Los Angeles, over 5,000 potential new residential units could be added to the existing 3,200 units, more than doubling the level of development. Figure 3-2 shows the location of this development. These estimates for additional development in the ReCAP area do not include additional second units and lots legalized through certificates of compliance.

Several terms and concepts are used throughout this report for purposes of discussion, including, but not limited to, "***buildable***", "***potential buildout***", "***subdividable***", and "***developable***". Use of such terms does not imply any entitlement to or future approval of proposed development on any parcel. Further, Figures 3-2 and 3-3 do not imply any entitlement to or future approval of any subdivision or proposed development on any parcel. ReCAP staff's analysis of potential buildout scenarios represents a theoretical maximum for discussion purposes only. Any discussion utilizing such terms, whether in the text or referenced in a figure, is based solely on the maximum density limitations specified in the applicable LUP or zoning ordinance for each jurisdiction, as applied to the estimated acreage of each parcel. The analysis of potential buildout or subdivision does not take other potentially relevant policies or facts into account that could entirely preclude development or significantly limit allowable density or use. For example, neither the applicability of resource protection policies to a particular lot, the legality of a lot, nor the exact location of any parcel have been determined or taken into account in the analysis or discussion herein.

For the purposes of this section of the report, a "***Potentially Buildable, but not Subdividable Lot***" is a vacant, privately owned residential lot that is not large enough to qualify for more than one residential unit under the density limitations specified in the applicable LUP or zoning ordinances. A "***Potentially Subdividable Parcel***" is a residential parcel that may be vacant or have existing unit(s), but is large enough to support the creation, through division of the lot, of one or more additional lot(s) under density limitations specified in the applicable LUP or zoning ordinances.

[2] Derived using the LUP maps for Los Angeles County and Ventura County, and the General Plan zoning for the City of Malibu.

Table 3-1:
Summary of Two Different Potential Buildout Scenarios for the ReCAP Area

	L.A. County	City of Malibu	Ventura County	Total ReCAP Area
Current Dwelling Units	**3193**	**5846**	**313**	**9352**
Buildout Scenario with Potential Subdivisions				
Number of Additional units from Vacant SFR Lots	3578	1222	216	5016
Number of Additional units from Potentially Subdividable Parcels	1481	1209	690	3380
Total Potential New Units Under this Scenario	**5059**	**2431**	**906**	**8396**
Buildout Scenario with No Further Subdivision				
Number of Additional units from Vacant SFR Lots	**3841**	**1370**	**311**	**5522**

Constraints Analysis

To begin assessing the cumulative impacts that would occur from this new development, ReCAP staff analyzed how constrained the potentially developable land in the region is, focusing on residentially zoned areas. ReCAP staff defined as "constrained" those areas which:

1) have slopes over 25%, which represents potential exposure to high fire hazards and increased erosion and landform alteration impacts; or
2) are within mapped Environmentally Sensitive Habitat Areas (ESHAs), or within a 100 foot buffer area from mapped ESHAs.

> The Coastal Act defines ***ESHA*** as "any area in which plant or animal life or their habitat 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 development" (PRC 30108.5).

Figure 3-3 overlays these factors onto the map of the buildout scenario of potential new development. (For a more detailed explanation of the methods used in this analysis, refer to Appendix Section II.) The results of this analysis, summarized in Figure 3-4, indicate few areas without significant constraints to development, particularly inland of the terrace area. The more constrained land is, the more difficult it would be to site development while minimizing impacts to resources. Based on the percent of the parcel constrained by steep slopes or the presence of ESHA, ReCAP staff's analysis shows that most of the constrained parcels are within the unincorporated Los Angeles County portion of the ReCAP area. Further, the largest percentage of the *most*

Figure 3-2
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
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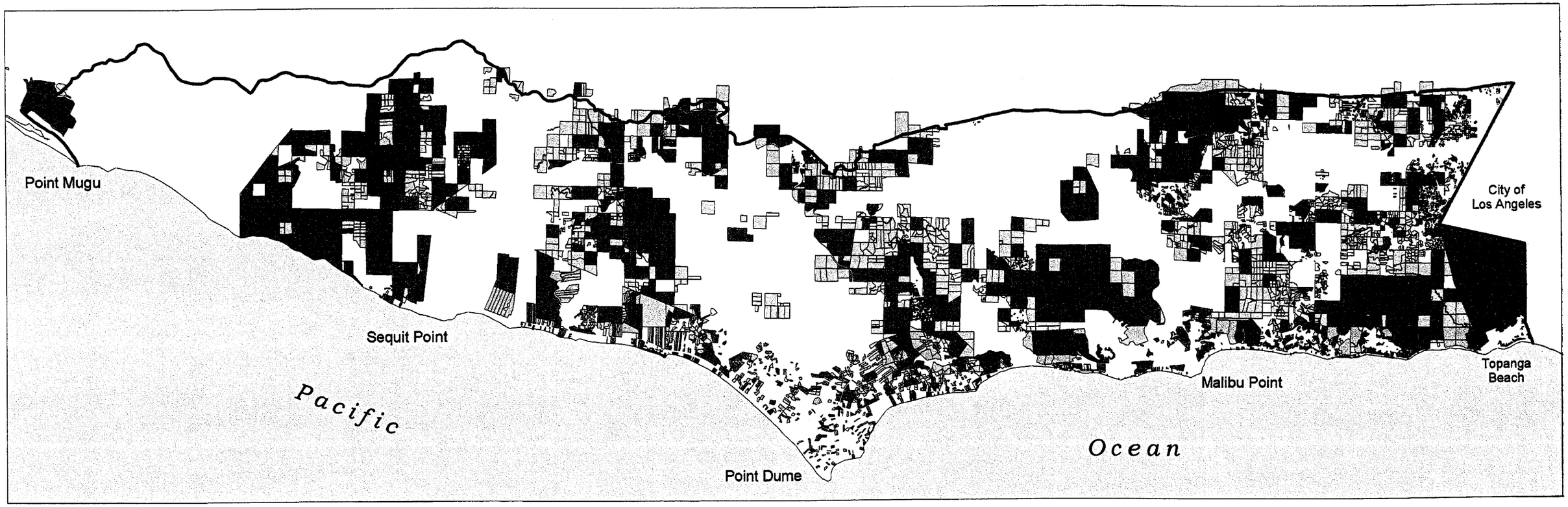
Location of Potential Additional Development



Private, vacant residential lots
(Potentially buildable, but not subdividable)

Potentially subdividable residential parcels

ReCAP Study Area Boundary

N
W E
S

0 1 2 3 4 5 Miles

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Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist. Refer to Chapter 3 of the text for more information about the data presented on this map.

Sources: L.A. County LUP, adopted 1986. Malibu Zoning. Ventura County LCP, adopted 1983.

Figure 3-3
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Location of Constraints on Potential Additional Development

Private, vacant residential lots
(Potentially buildable, but not subdividable)

Potentially subdividable residential parcels

Areas with > 25% slope, ESHA, or 100' ESHA buffer

ReCAP Study Area Boundary

N
W E
S

0 1 2 3 4 5 Miles

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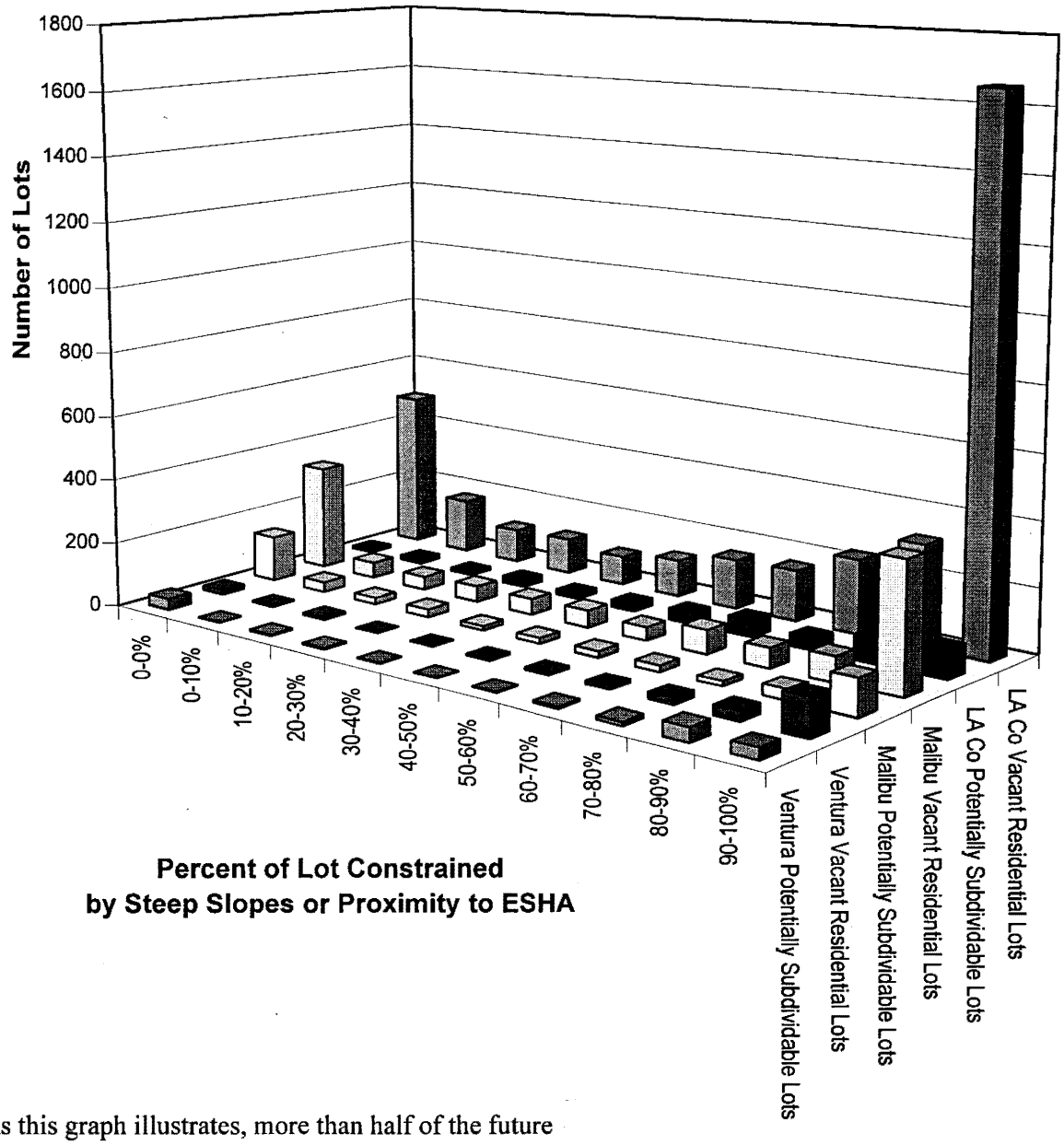
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist. Refer to Chapter 3 of the text for more information about the data presented on this map.

Sources: L.A. County LUP, adopted 1986. Malibu Zoning. Ventura County LCP, adopted 1983. USGS 20 Meter Grid Digital Elevation Models.

Figure 3-4: Future Development Potential: Distribution by Jurisdiction and Degree of Constraint



As this graph illustrates, more than half of the future development potential in the region is located on existing residential lots within the unincorporated part of Los Angeles County (back row of graph), and most of those parcels are highly constrained (right side of graph). Retiring the development potential on these lots should be a priority for reducing future cumulative impacts in the region.

significantly constrained lots (90-100% constrained) are within this area. Almost 60% of the potential new development in the overall region could occur from existing lots in the Los Angeles County portion; nearly half of potential new development could occur on lots that are 80 to 100% constrained.

As a comparison, ReCAP staff analyzed the level of constraints on lots created by parcel subdivisions approved by the Commission. On average, these new lots are approximately 40% constrained, significantly less than the remaining potentially developable land. Subdivision of the remaining more constrained parcels would therefore lead to proportionately greater cumulative impacts than have occurred through past subdivisions.

In addition to the constraints of steep slopes and ESHAs, in the Santa Monica Mountains a significant cumulative impact to vegetation and habitat can occur as a result of brush clearance in response to fire hazards. Currently, the County requires a 50 foot clearance to bare earth around all structures, with selective thinning within an additional 150 foot area. ReCAP staff found that there are approximately 470 parcels which are of a size that, if developed, the required brush clearance would encroach into state or federal park lands or into ESHAs.

Developing to the maximum densities designated through the various plans for the region would result in the same significant cumulative impacts documented in the late 1970s. The use of the various regulatory tools discussed above can reduce the level of impacts. However, because of the total number of parcels that could be developed, these regulatory tools *alone* will not decrease the level of development enough to adequately address the impacts. While development of the existing parcels will lead to additional impacts, any *further* increase in the potential density of the region, created through additional subdivisions, will lead to further impacts. Therefore, an objective in addressing cumulative impacts of growth and development in the ReCAP region is to prevent a further increase in the overall number of lots that can be developed. Two mechanisms that the Commission has already used to address cumulative impacts of new development are the TDC and GSA programs. The following preliminary findings and recommendations address ReCAP staff's analysis of these mechanisms, and focus on how to improve implementation of the programs to further improve management of cumulative impacts in the region.

MANAGING THE AMOUNT OF POTENTIAL GROWTH

As discussed above, the large number of lots in existence in the region creates the potential for significant cumulative impacts on coastal resources. Any increase in the number of parcels would further contribute to those potential impacts. The Commission's programs, especially the TDC and GSA programs, have been very effective in reducing the potential cumulative impacts of development in the region

by allowing no net increase in, and even reducing, the total number of developable parcels in the ReCAP study area. These programs should be continued.

Preliminary Recommendation III-1	The Commission should continue use of the TDC program, as structured across the City of Malibu and Los Angeles County, with the modifications proposed through Preliminary Recommendations III-3 through III-10, until Local Coastal Programs are certified for Los Angeles County and the City of Malibu in order to meet the objective of no net increase in parcels in the Santa Monica Mountains region.
Preliminary Recommendation III-2	The Commission should continue use of the slope intensity formula/GSA program as an effective means to reduce the cumulative impacts of development in the small lot subdivisions.

Preliminary Findings:

As one method of keeping the total number of parcels in the ReCAP region from increasing and thereby addressing cumulative impacts, the Commission has required TDC conditions on all approved subdivisions since 1978. Through these conditions, the development potential on approximately 1,011 lots (approximately 1,777 acres) in the Santa Monica Mountains has been retired; of these, 858 lots (approximately 210 acres) are in the small lot subdivisions.[3] The lots created through new subdivisions total approximately 700 new lots.[4] The GSA program has effectively removed another 39 lots from development.[5] Figure 3-5 and Table 3-2, on the following pages, show the locations and extent of lots restricted under the TDC and GSA programs.

Approximately 20% of all existing lots in the small lot subdivisions have been retired. Without the retirement of these lots, approximately 1,490 additional units could have been built in the project area. This number is higher than the total number of lots restricted under both programs (1,052) because it includes the additional units that could

[3] See Appendix Section II for methods used to calculate the number of lots retired.

[4] Although the Commission has approved the creation of approximately 960 new lots through subdivision permits, not all projects were completed. To determine whether a parcel proposed for subdivision was actually subdivided, ReCAP staff relied on assessor parcel maps, supplied by TRW Experian. The number of lots retired through the TDC program is greater than the number of new lots created through subdivisions due to the specifics of how a TDC is calculated; each new subdivisions is required to retire an equivalent number of TDCs to the number of new lots; however, one TDC may involve more than one lot. (See the Commission's Interpretive Guidelines (1981) for an explanation of how lots are qualified for a TDC.)

[5] Under the GSA program, the development potential of lots is not always retired as it is under the TDC program. In a GSA action, several lots are recombined together, and a house may span several lots. For this analysis, while the lots may have development on them, if a residence is built on three lots, two additional residences are precluded from being developed. Therefore, the GSA program reduced by two the total number of lots that could be developed.

Figure 3-5
Preliminary Draft

Regional Cumulative Assessment Project:
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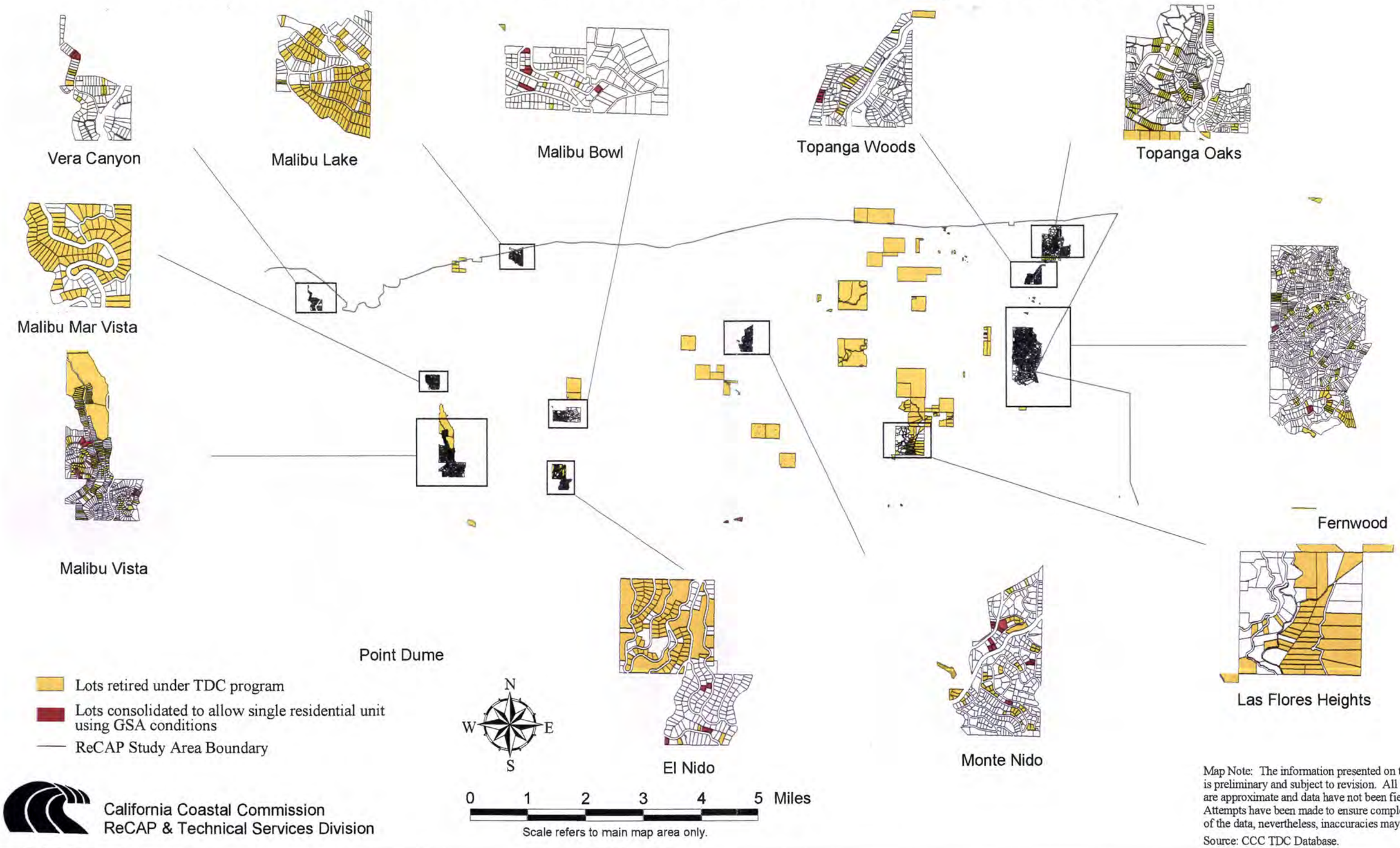
Retired and GSA Lots in Small Lot Subdivisions in Los Angeles County and Malibu



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Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Source: CCC TDC Database.

have been built if the retired parcels had been subdivided and built with the total number of units allowed under the LUP as described in 1986.

Implementation of the TDC program has been successful not only in reducing the overall density of development in the region, but also in directing new development to more appropriate locations. Lots retired through the TDC program are, on average, 87% constrained, based on ReCAP staff's criteria. As noted previously, the new parcels created through Commission approved subdivisions are approximately 40.5% constrained. Therefore, through the use of TDCs, the Commission has directed development in the Santa Monica Mountains region to locations which, when developed, lead to less significant impacts on coastal resources.

Table 3-2:
Lot retirement through the TDC and GSA programs

Small Lot Subdivision	No. retired lots (1998) (includes TDC and GSA lots)	% of total number of lots retired in subdivision (includes TDC and GSA lots)
Vera Canyon	10	9%
Malibu Mar Vista	99	72%
Malibu Vista	160	31%
Malibu Lake	124	63%
Malibu Bowl	7	4%
El Nido	179	52%
Monte Nido	52	13%
Fernwood	128	9%
Topanga Woods	13	6%
Topanga Oaks	77	9%
Las Flores Heights	48	49%
Subtotals	**897**	**20%**
Lots not in small lot subdivisions	155.33	
TOTALS	***1052.33***	

Sources: McClure, 1979; Coastal Commission TDC Database, 1998; GIS layer for Los Angeles parcels, 1998.

While the existing TDC and GSA programs have been effective at addressing cumulative impacts, implementation of the following recommendations would further improve the Commission's and local governments' mitigation of impacts from development on coastal resources.

MODIFY CRITERIA FOR DONOR AREAS

While the TDC program has been very successful, several modifications could be made to the program to assure its continued effectiveness in the future. Some of these involve the criteria by which TDC donor lots are qualified. These preliminary recommendations are intended to respond to changed circumstances since the TDC program was initially conceived and reflect two decades of experience in implementing the program.

Preliminary Recommendation III-3	Revise the approved donor areas for TDC retirement to exclude certain small lot subdivisions that are substantially built out and/or have had sufficient lot retirement to reduce density at buildout, and focus lot retirement under the TDC program in other areas. The small lot subdivisions proposed for removal as donor areas are: Malibu Mar Vista, Malibu Lake, Las Flores Heights, and El Nido. However, within these small lot subdivisions, TDC credits should be given where the lots to be retired are adjacent lots, with sensitive habitat. Continue to use the slope intensity formula/GSA in *all* small lot subdivisions to further reduce densities and prevent cumulative impacts.
Preliminary Recommendation III-4	Revise the approved donor areas for TDC retirement to include parcels in wildlife corridors and any parcel in a significant watershed.
Preliminary Recommendation III -5	Where TDC credit is given for lots in small lot subdivisions, the value of a TDC should be based solely on the acreage and the existence of services to the lot, as described further in the 1981 District Interpretive Guidelines. Additional TDC value should not be given for the presence of sensitive habitat on small lots.

Preliminary Findings:

Small lot subdivision donor areas

Since 1979, 858 lots in small lot subdivisions have been retired; many of these retirements have occurred in Malibu Mar Vista, Malibu Lake, and El Nido. A significant number of lots have also been retired in Las Flores Heights, although this subdivision was not designated as one of the official donor areas. Given the ongoing implementation of the TDC program and the ongoing development in the Santa Monica Mountains, it is important to periodically assess whether some subdivisions have been developed to the point that few parcels remain vacant and/or have had a sufficient number of lots retired to meet the objectives of the TDC program. In these cases, the small lot subdivision

should no longer be considered a donor area, except where contiguous lots with sensitive resources are to be retired, so that lot retirement can be focused elsewhere. However, lots in these small lot subdivisions would still be available for retirement under the GSA/slope intensity formula.

Table 3-3:
Potential Buildout of Small Lot Subdivisions[7]

Name	Approx. % of lots Potentially Developable	Projected Density in 1979 (units/acre)	Existing Density (1998) (units/acre)	Planned Densities under LUP (estimated) (units/acre)	Future Projected Buildout (units/acre)
Malibu Lake	24	16.77	0.66	0.6	1.76
Las Flores Heights	26	.66	.07	.073	.25
Malibu Mar Vista	31	4.60	0	.18	1.17
El Nido	35	6.77	1.72	.725	3.04
Fernwood	35	6.47	1.91	.64	4.22
Malibu Bowl	41	3.21	1.67	.64	2.85
Monte Nido	58	10.28	2.58	.95	7.11
Malibu Vista	57	4.83	.81	.66	3.31
Vera Canyon	66	4.12	.72	.82	4.54
Topanga Woods	65	6.91	1.87	.63	6.45
Topanga Oaks	74	8.74	1.07	.56	3.96

Sources: McClure, 1979; Santa Monica Mountains/Malibu LUP designated densities; GIS layers for Los Angeles parcels, vacant and developed parcels, and TDC parcels.

[6] For its analysis, ReCAP staff defined "potentially developable lots" as existing, vacant lots that are not already retired under the TDC or GSA programs, and are not identified as national, state, or other parkland. Other public land and land owned by the Mountains Restoration Trust are is included in this analysis.

[7] The boundaries for the Malibu Lake and Topanga Oaks subdivisions, as identified in 1979 (McClure, 1979) extend beyond the coastal zone. Calculations for buildout densities in 1979 includes the entire subdivision. Due to data available, the ultimate densities projected under the LUP are based on those portions of the subdivisions located in the coastal zone. Vera Canyon shows a higher density after retirement of lots through the TDC program due to a discrepancy in the available data sources for the baseline number of parcels in the subdivision. For this analysis, the potential buildout is based on the whether parcels are currently developed or vacant and whether they are retired under the TDC/ GSA programs. ReCAP staff did not analyze specific parcels with regards to constraints to development or with regards to policies in the Coastal Act or the Santa Monica Mountains/Malibu LUP, which may affect the development potential on parcels.

Table 3-3, preceding page, illustrates the degree to which each small lot subdivision is currently developed and the ultimate density if all remaining vacant, non-retired lots were developed. This analysis does not factor in any existing or future retired GSA lots, which would further reduce densities. Most lots in Las Flores Heights, El Nido, Malibu Lake, and Malibu Mar Vista, are already developed or have had their development potential extinguished through the TDC program. In each case, approximately one-third or less of lots remain potentially developable,[8] and the density from the projected 1979 buildout has been significantly reduced. Although only an estimated one-third of the lots in Fernwood remain potentially developable, ReCAP staff is not recommending that this subdivision be excluded as a donor area, due to the overall large size of the subdivision, and the remaining high densities if no additional retirement were to occur. The decision of which small lot subdivisions should be removed as a donor site cannot be determined based solely on one factor, such as percent of lots remaining or ultimate density, but must be based on a combination of these factors and on the specifics of each small lot subdivision.

Although Las Flores Heights was never designated an official donor site, the Commission allowed significant lot retirement through the TDC program. The Mountains Restoration Trust plan for Las Flores Heights (1982) analyzed the suitability of development in this subdivision. The restoration plan identified five zones in the subdivision, with a potential of a maximum of seven building sites. ReCAP staff's analysis shows that ten parcels within the subdivision are already developed, based on ReCAP staff's assessment of vacant and developed lands (see Section II of Appendix). An additional 17 parcels in the subdivision are vacant and not restricted from development under the TDC or GSA programs. Although this leads to a higher potential development than that identified as suitable under the restoration plan, the lots in this subdivision are generally larger than lots in the typical small lot subdivisions. The size of the remaining vacant, non-retired parcels range from one acre to 9.5 acres; five lots are less than one acre in size. These larger parcel sizes allow better site planning for development and mitigation of impacts. Combined with the fact that approximately 50% of both the acreage and the number of lots in the subdivision have been retired, mitigation of impacts from development can be addressed through mechanisms other than the TDC program.

Ideally, the TDC and GSA programs would reduce the density of buildout in all small lot subdivisions to equal the density suggested in the LUP. While densities have been reduced from the projected 1979 levels in all the small lot subdivisions, due in part to the retirement of lots and in part to density designations suggested in the LUP, most of the retirement has focused on Las Flores Heights, El Nido, Malibu Lake, and Malibu Mar Vista. Additional retirement in these subdivisions would continue to reduce the density of buildout. However, by allowing additional lot retirements in these small lot subdivisions, fewer lots would be retired in the remaining subdivisions, where density has not been reduced as much. As shown in Table 3-3, the potential for development in other small lot subdivisions is generally higher than in the four proposed for exclusion of future

[8] For its analysis, ReCAP staff defined "potentially developable lots" as existing, vacant lots that are not already retired under the TDC or GSA programs, and are not identified as national, state, or other parkland. Other public land and land owned by the Mountains Restoration Trust are is included in this analysis.

TDCs. While the future projected buildout in Malibu Bowl is less than the projected buildout in the subdivisions proposed for exclusion of TDCs, the actual extent of retirement in Malibu Bowl has been minimal. Therefore, the initial concern over cumulative impacts in this small lot subdivision has not been addressed, and ReCAP staff is not proposing that Malibu Bowl be excluded for future TDC transactions. To most effectively reduce cumulative impacts in the small lot subdivisions, lot retirement under the TDC program should emphasize retirement in areas other than Las Flores Heights, El Nido, Malibu Lake, and Malibu Mar Vista. The GSA program should continue to be applied in all small lot subdivisions to minimize and mitigate impacts from development and to further reduce densities.

Lot Retirement and Sensitive Habitat

The TDC program has generally focused the retirement of lots in the small lot subdivisions. For these lots, the Commission gives fractional TDC values based, in part, on the acreage of the lot.[9] However, the Commission has also recognized that significant watersheds and environmentally sensitive habitat areas (ESHAs) can be severely impacted by buildout in the region; as a result, these areas "were designated as donor areas [under the TDC program] in order to preserve and protect the most critical resource areas where continued build-out would adversely impact sensitive coastal resources" (CCC, 1996a, pg. 12). Since some of the lots in the small lot subdivisions have designated ESHA on them, the Commission has, in past permit actions, granted TDC credit beyond that which would have been granted under the criteria described in the Commission's District Interpretive Guidelines.

Except where lot retirement occurs as part of a Coastal Conservancy restoration plan, the retirement of lots in small lot subdivisions has usually been done incrementally, and retired lots are often scattered throughout the subdivision. While some of these lots may have habitat designated as ESHA on them, often riparian or oak woodlands, the quantity and quality of the habitat may be less due to this fragmentation. Retiring larger connected areas rather than small, single isolated lots may more effectively mitigate impacts by increasing protection and viability of the resource. In spite of these factors, in some cases, the Commission has granted a full TDC value for small lots with a minimal amount of sensitive habitat. In granting extra TDC value to these lots, the Commission has in effect authorized a reduction in the total number of lots retired, without obtaining significant gains in resource protection. Therefore, for lots in the small lot subdivisions, the Commission should continue to base the TDC value on the acreage and proximity to services of the lot as discussed in the 1981 District Interpretive Guidelines.

Further, the Commission should revise the approved donor areas to include parcels in wildlife corridors and parcels in all designated significant watersheds. Currently, the TDC donor areas include the significant watersheds east of Point Dume, but do not include the significant watersheds west of Point Dume or the two wildlife corridors in the

[9] The Commission's 1981 District Interpretive Guidelines and the Commission's 1996 report reviewing the TDC program describe in more detail how lots are valued for TDC credit.

region. These wildlife corridors are an important resource in the Santa Monica Mountains, and are described in the LUP to "provide corridors for wide-ranging mammals to forage through large, uninterrupted areas of the mountains and for all manner of terrestrial creatures to move freely during fire episodes" (CCC, 1986, pg. 15).

Significant Watersheds: Since 1979, the Commission has approved permits for 189 residences and 23 subdivisions within the boundaries of significant watersheds in the Santa Monica Mountains. An additional 297 units could be developed within the significant watersheds, without accounting for future subdivisions.[10] Although some of these subdivisions have been approved west of the Point Dume area, as a result of the designated donor areas for TDC transactions, the mitigation for these subdivisions has been located east of Point Dume (Figure 3-6). While the overall density from these subdivisions has been mitigated through TDCs, the impacts have not been addressed in the same area as the impacts occurred. Expanding the donor areas to include the significant watersheds west of Point Dume, and retiring lots in this area when new subdivisions occur in this area, would better mitigate the impacts of development and would better protect the significant watersheds in this portion of the Santa Monica Mountains.

Wildlife Corridors: Within the two major wildlife corridors, illustrated in Figure 3-7, the Commission has authorized permits for the new development of, or additions to, 35 single family residences and 14 subdivisions. An additional 211 units could be developed, excluding the potential increased density from additional subdivisions.[11] This potential for additional development in the Santa Monica Mountains will continue to place pressure on sensitive resources and wildlife. Because the wildlife corridors are not identified as donor areas, the TDC program is not currently utilized to address the cumulative impacts from additional development.

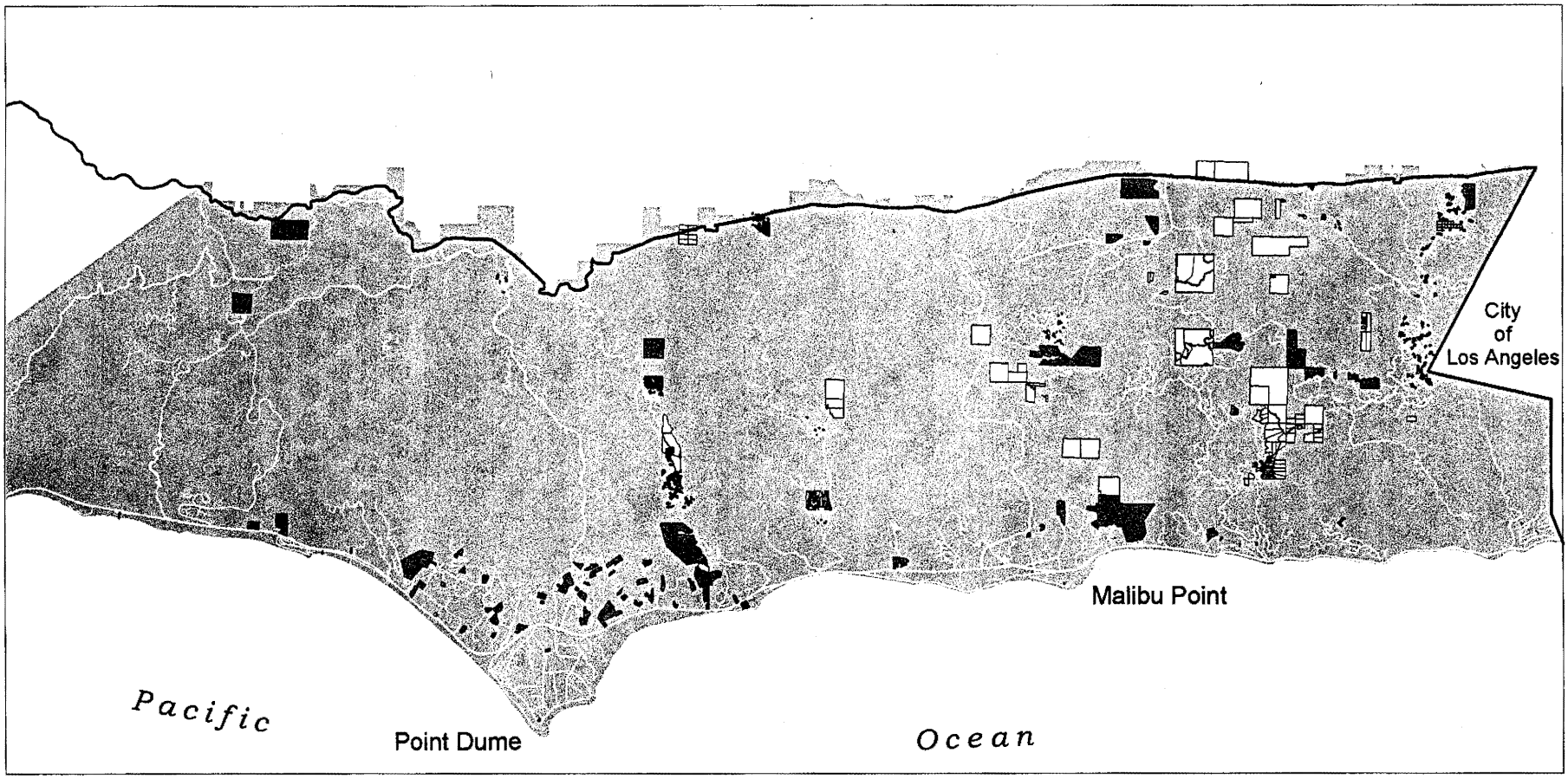
Table 3-4 and Figure 3-7, on the following pages, show the extent to which resource lands have been retired through the TDC program. Although only 15% of the lots retired under the TDC program fall within the resource areas outside of the small lot subdivisions, approximately 88% of the total acreage retired under the TDC program is located outside of the small lot subdivisions. Retiring additional parcels in significant watersheds and wildlife corridors under the TDC program would further reduce the development potential in these areas and the associated cumulative impacts, and improve protection of these resource areas.

[10] This figure calculates the buildout potential on lots that have their boundaries entirely within the significant watersheds. Numerous other parcels are partially within the significant watershed boundaries; the buildout on these parcels could add another 570 units (although not all the units may be in the significant watershed boundaries.)

[11] As with significant watersheds, this number is based on the buildout potential of lots entirely within the mapped boundaries of the wildlife corridors. An additional 119 units could be built on parcels with their boundaries partially within the wildlife corridors.

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Completed Subdivisions and TDCs



Subdivisions with TDCs completed or in progress

Retired Lots under TDCs

ReCAP Study Area Boundary

N
W E
S

0 1 2 3 4 5 Miles

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC Permit Database, CCC TDC Database.

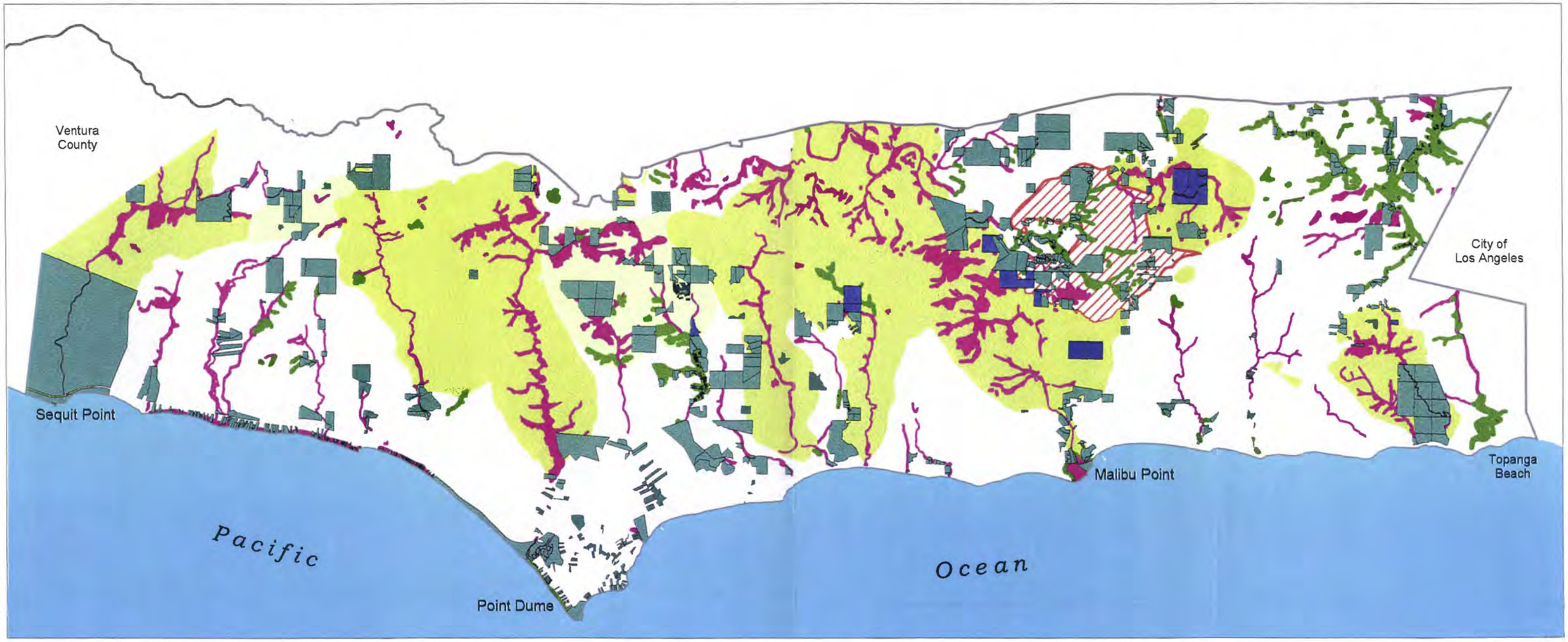
California Coastal Commission
ReCAP & Technical Services Division

Figure 3-6
Preliminary Draft

Figure 3-7
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Approved Development and Retired Lots in Sensitive Resource Areas within L.A. County 1978-1996



- Development approved within sensitive resource areas
- Retired lots within sensitive resource areas
- Coldcreek management area
- ESHA
- Significant oak woodlands and savannas
- Significant watersheds
- Wildlife migration corridor
- ReCAP Study Area Boundary

N W E S

0 1 2 3 4 5 Miles

California Coastal Commission
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: L.A. County LUP, 1986. CCC TDC Database.

Table 3-4:
Extent and Location of Resource Lands Retired Under TDC Program

Resource Type[12]	Number of Lots within each Resource Type[13]	Approximate Acreage
Wildlife Corridor	101	36
Coldcreek area	12	242
Significant Watersheds and Savannas	20	342
Significant Oak Woodlands	82	14
ESHA	1	0.12

Sources: GIS layers for ESHA and TDC layers.

IMPROVING THE IMPLEMENTATION OF MITIGATION

In addition to the modifications to the TDC lot qualification process discussed above, ReCAP staff have identified a number of other opportunities to improve implementation of the TDC and GSA programs. These involve working with other agencies to ensure adequate follow-up and to improve tracking of TDC implementation.

Preliminary Recommendation III-6	Work with L.A. County to ensure that lots retired under the TDC and GSA program are actually recombined into one parcel, and encourage L.A. County to establish an expedited process for reversion to acreage under the Subdivision Map Act. Once this process is completed, the Commission should update its special condition language to require that, prior-to-issuance of the permit, any necessary TDC transactions be completed through this reversion to acreage process.

[12] Under the Santa Monica Mountains/ Malibu LUP, some riparian areas and oak woodlands meet the definition of ESHA under the Coastal Act, and are identified as "ESHA". The LUP recognizes other areas not meeting the definition of ESHA as sensitive resources, including significant oak woodlands and savannas, significant watersheds, Coldcreek resource management area, and wildlife corridors.

[13] The acreage in Table 3-4 is based on the parcels entirely within the specified resource type, except for the Cold Creek area. Additional acres may be retired where a parcel lies only partly within the mapped boundaries of the resource area. For the Cold Creek area, the extent of retired lots was extended beyond the mapped boundaries, to include the entire Cold Creek Management Area, as defined by the State Coastal Conservancy's restoration plan. Because the entire management area is not mapped, these figures are estimates based on staff identification of parcel locations.

Preliminary Recommendation III-7	Develop Memorandums of Understanding (MOUs) with Los Angeles County, the Coastal Conservancy, the Mountains Conservancy, and/or other non-governmental organizations to facilitate their acceptance of existing offers-to-dedicate open space easements for TDCs. This strategy should include a monitoring program to track whether offers-to-dedicate are accepted. The MOU should also designate one or more of the agencies as an on-going "accepting managing entity". When this framework is established, the Commission should revise its special condition language to provide that when an open space easement is required, the easement be dedicated directly to the accepting entity.
Preliminary Recommendation III-8	Improve the tracking and monitoring of all prior to issuance conditions, including TDC and GSA mitigation, by 1) modifying the statewide permit tracking system to include a condition compliance component; 2) encouraging the Mountains Restoration Trust to complete existing in-lieu fee TDC transactions, and discourage use of in-lieu fees for future transactions; and 3) maintaining and updating the Geographic Information System (GIS) layers for the TDC and GSA programs which were developed as part of ReCAP.
Preliminary Recommendation III-9	Develop a system to ensure that the local governments' planning department receives updated TDC/GSA layers showing the location of the restricted lots. The City of Malibu and the County of Los Angeles, as part of their LCP planning, should develop and maintain a post-certification tracking system to track the location of approved development and required easements.

Preliminary Findings:

Assuring mitigation measures are completed

The TDC and GSA programs require two steps to fully retire the development potential on lots. The first step involves recordation of an open space easement over the lots to be retired; this easement extinguishes the development potential of the property. In addition, a declaration of restrictions (DR) is recorded against the property to recombine the retired lots into one parcel, and joins them to another lot that has not had its development potential extinguished (the "recombined" or "developable" lot). The DR therefore requires the extinguishment of the individual former lots and their recombination into one new parcel. Because at least one of the former lots does not have an open space easement over it (the "recombined" lot), the entire parcel maintains the development potential equivalent to that of the recombined lot.

Lot Recombinations: Recombination of lots through the declaration of restrictions is a substitute process to the standard reversion to acreage under the Subdivision Map Act that the Commission has allowed applicants to use to comply with a TDC condition. Under this process, a declaration of restrictions (DR) is recorded against the title to the TDC lots, recombining the lots into one parcel. The DR language states that the recombined lots "shall be considered and treated as a single parcel of land for all purposes with respect to the lands included therein, including but not limited to … development, taxation, or encumbrance." However, because the individual lots are not recombined under the Subdivision Map Act, the County does not always give this recombined parcel only one assessors' parcel number (APN). As a result, the former individual lots often retain separate APNs; this lack of a single APN can cause confusion for both individuals and for County planning staff. Because the recombination is not officially done through the County assessor's office, an individual would need to acquire a title report to verify whether the former individual lots are part of a larger parcel or an individual unit. Such confusion can also raise enforcement issues. For example, in 1992, Commission enforcement staff was notified that 73 former lots recombined through a declaration of restrictions as TDC mitigation were sold individually, in violation of the DR. While the Commission ultimately won the enforcement action in court, the lots have not yet been recombined, thereby eliminating the mitigation for a previous subdivision. Under the current process, preventing a similar situation would be a very time-consuming and difficult effort.

Commission staff has worked with Los Angeles County to assure that the County assessor's recognizes the recombined lots and assigns a single APN to the parcel after recordation of the DRs. However, the system is cumbersome and time-consuming for both Commission and County staff, and is dependent on the County receiving notice of the TDC lots and assigning a single APN quickly. The Commission staff believes that even with the revised procedures, the TDC lots are not necessarily secure. Since this new process was initiated, Commission staff has received notice that a former lot (one of the lots in the original enforcement action) was again sold in a tax default action.

As the Commission's interpretive guidelines discuss, "where feasible [,] the combination should be accomplished by reversion to acreage procedures" (CCCa, 1981, pg. 33). Under the reversion to acreage process, the County would officially recombine the former lots into one parcel, with a single APN. While this process can be lengthy and expensive, under the Subdivision Map Act, the County could institute procedures for an expedited process that would accomplish the recombination with less cost to the applicant. Instituting this expedited procedure under the Subdivision Map Act would be the best method to assure that TDC lots are effectively recombined into one parcel, thereby assuring the mitigation required. After such a process is established, the Commission could require use of the County's reversion to acreage process in cases where an application is conditioned to require a TDC.

Open Space Easements: A second part to the TDC or GSA process involves recording an offer-to-dedicate (OTD) an open space easement against the title to the property.[14] Once *accepted* by a managing entity, this document extinguishes the development rights on the lots to be retired. Because no agency has been identified as an available "accepting managing entity", the Commission has generally required an OTD rather than an outright dedication of open space. However, most OTDs expire 21 years from the date of recordation. If no agency accepts the offers prior to their expiration date, the OTDs will expire, and the lots will be available for development. If lots are developed where the OTD has expired due to lack of acceptance, mitigation is not achieved for the development previously authorized and requiring the TDC condition.[15]

> An ***OTD*** (offer-to-dedicate) is a document, recorded against the title to a property, which is an offer of dedication to the people of the State of California of the fee interest in, or an easement over, the property or a portion of the property. Generally, an OTD allows specific uses in the property. The offer conveys fee title or an easement in perpetuity only upon its acceptance on behalf of the people by a public agency or by a nonprofit private entity approved by the executive director of the Commission.

Expiration of Offers-to-Dedicate

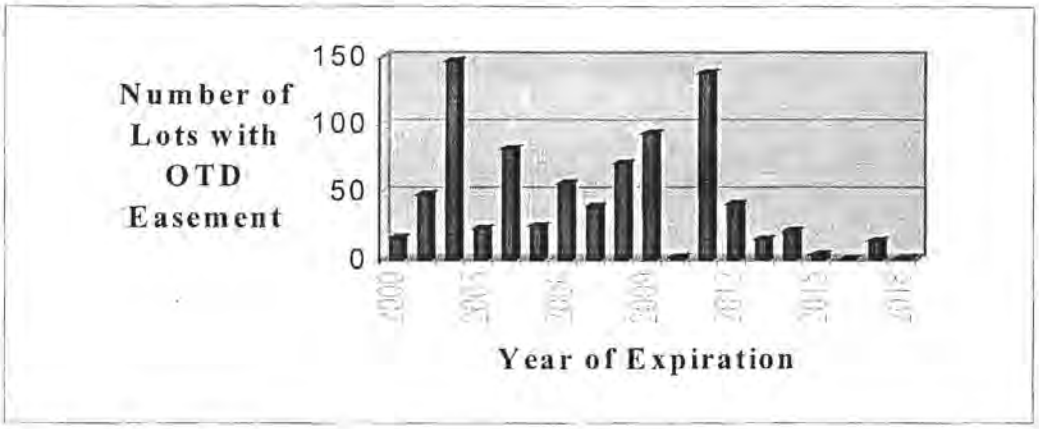
Since the first TDC offers to dedicate were recorded in 1979, offers will begin expiring in 2000. Figure 3-8 shows the number of lots, by year, that will no longer be restricted from future development if the OTDs expire. OTDs for nine lots have been accepted by the Coastal Conservancy. Staff from both the Coastal Conservancy and the Coastal Commission believe that no other offers-to-dedicate from the TDC program have been accepted.[16] In order to prevent the mitigation required for new subdivisions from expiring, the Commission needs to identify one or more agencies willing to accept the existing OTDs. ReCAP staff recommends that the Commission develop Memorandums of Understanding (MOUs) with one or more appropriate agencies willing to be the managing entity for open space lots; once an MOU is completed, for future conditions requiring a dedication of an easement, the Commission should require that the easement be dedicated directly to the managing entity.

[14] Not all GSA permit conditions required an open space easement.

[15] ReCAP staff assessed OTDs for the TDC program and for public access (discussed in Chapter 5). No analysis was done on the Commission's use of OTDs to address other issues, including the protection of recreational, scenic, visual, and sensitive habitat resources. The Commission has required, through permit conditions, approximately 168 open space easements in the ReCAP area for these other issues. Based on experience with this project and the Monterey Bay ReCAP, it is likely that many of those easements that have been recorded to comply with permit conditions have not been accepted.

[16] An additional 105 lots with TDC OTDs recorded are now in national, state, or other parkland. However, Commission staff believes that the OTDs for these lots have not been accepted.

Figure 3-8:
Number of Open Space OTDs by Expiration Year on TDC/GSA lots[17]



Sources: TDC database.

Use of in-lieu fees

To ensure that mitigation for approved development is completed, the Commission requires completion of TDC and GSA requirements prior to the issuance of its permit for the proposed project; overall, these conditions are met. However, ReCAP staff's review of the permit requirements identified 16 cases where the Commission has no evidence that recordation of the required documents has been completed, due primarily to the use of the in-lieu fee process. The in-lieu fee program was established as part of a Coastal Conservancy restoration program, approved by the Commission (CCC, 1996a). Under that program, the in-lieu fee process was to be used to retire 100 lots in the Coldcreek management area as an alternative to the standard TDC procedures. An estimated 79 lots have been retired in this area. The Commission agreed that specific additional lots in the Fernwood area would be counted towards the 100 lots to be retired in Cold Creek.[18]

When a permit is conditioned to allow an in-lieu fee to comply with the TDC requirement, an applicant pays the in-lieu fee and a third party is responsible for generating and retiring the TDC lots.[19] While the applicant has complied with the permit conditions by paying the in-lieu fee, the mitigation for the impacts of the project is not complete. While the in lieu fee process has made progress in meeting its objective to retire 100 lots, there has frequently been a delay in completing the TDC transaction, and a number of TDC requirements have not yet been completed. Commission staff experience indicates that retirement of lots through the in-lieu fee program has been

[17] Where OTDs for a single permit are recorded in multiple years, Figure 3-8 assumes all OTDs were recorded in the earliest year.

[18] The Commission has counted 14.5 TDCs in the Fernwood small lot subdivision as part of the in-lieu fee program. In general, three small lots are equivalent to one TDC. Therefore, an estimated 42 lots in Fernwood have been retired under the in-lieu fee process.

[19] The Mountains Restoration Trust has generally administered the in-lieu fee program, and has been responsible for completion of the in-lieu fee transactions to date.

difficult to implement and manage. Therefore, once Commission staff verifies that the 100 lots under the in-lieu fee process are completed, additional use of in lieu fees should be discouraged. Special conditions requiring a TDC transaction should require the retirement of development rights prior to the issuance of the permit.

Several other permits have been issued prior to completion of TDC requirements. Although this percentage is small, the Commission can improve its mitigation of impacts by modifying the Commission's statewide permit tracking system, developed and implemented under the Commission's previous ReCAP (1995) to include a component for condition compliance. This tracking mechanism would better ensure that all prior-to-issuance conditions, including TDC transactions, would be met prior to the permit being issued.

Data Management and Inter-governmental Coordination

In conjunction with improving condition compliance, the Commission should maintain the Geographic Information System (GIS) layer which identifies the lots affected under the TDC and GSA programs; this data layer was developed and completed as part of this ReCAP. To effectively plan for future development in the Santa Monica Mountains and to assure that the TDC and GSA programs work effectively, both the Commission staff and local government planning staff need to have accurate information regarding the location of restricted lots. Until ReCAP staff completed the GIS layer, this information was not easily available for either staff. Regularly updating this data if additional lots are retired, and ensuring that it would be available to local governments, would assist in their local review of development proposals. This information would also provide an important component to LCP planning; continuing to track the location of development and any restrictions on parcels should be incorporated in the LCPs for the area.

RECOMMENDATIONS FOR LOCAL COASTAL PLANNING

Following certification, when they assume responsibility for coastal management under their LCPs, Los Angeles County and the City of Malibu will continue to face issues regarding the extent and location of development, and the associated cumulative impacts to coastal resources. The TDC and GSA programs could continue to be effective components of cumulative impact management if incorporated into LCPs for either or both jurisdictions.

Preliminary Recommendation III-10	The City of Malibu and the County of Los Angeles should adopt a TDC program which is implemented across jurisdictional lines in the Santa Monica Mountains, so as to ensure no net increase in the number of lots in the region as a whole. The program should be structured to incorporate the above recommendations. If the City and County find that a TDC program cannot be structured across both jurisdictions, Los Angeles County should amend its LUP to include a TDC program within its jurisdiction to ensure no net increase in the number of lots in the area. The City of Malibu should also include in its proposed LCP, a TDC program within its jurisdiction to ensure no net increase in the number of lots . Los Angeles County should retain use of a slope intensity formula as described in the 1986 LUP. The City of Malibu should include a slope intensity formula where applicable as part of its LCP planning.

Preliminary Findings:

Implementing a joint TDC program

The Commission developed its current TDC program based on addressing the cumulative impacts of development over the region as a whole to best protect the resources. As a result, the Commission found that development was more appropriately focused on the coastal terrace rather than in the interior, more mountainous portion of the region where development was more constrained and would lead to more significant impacts on resources.

Until 1991, when the terrace area was incorporated into the City of Malibu, the entire Los Angeles County portion of the Santa Monica Mountains was under the jurisdiction of one local government, which would have been addressed through one LCP. Currently, with the change in political jurisdictions, an LCP is required for both the City of Malibu and the County of Los Angeles. In spite of the change in jurisdictions, ReCAP staff recommends that the TDC program continue to be implemented across both jurisdictions in order to most effectively address the cumulative impacts from development throughout the Los Angeles County portion of the ReCAP area. ReCAP staff's analysis shows that while the remaining vacant lots in both jurisdictions are significantly constrained, based on the presence of steep slopes and ESHA, the Los Angeles County portion of the region has significantly *more* highly constrained lots, while the City has more parcels that are less constrained, and therefore area more suitable for development (see Figure 3-4).

By continuing to retire the development potential of parcels in the Los Angeles County portion of the coastal zone, the City of Malibu will benefit. Impacts from development will affect the entire region, and will not be isolated to the political jurisdiction where the development occurs. As discussed throughout these findings, a main problem in addressing cumulative impacts to coastal resources is the sheer number of parcels that could ultimately be developed in the region as a whole. By continuing to reduce the density in the mountain area, the overall density of the region continues to be held or reduced, thereby reducing the cumulative impacts from development. Further, due to the physical setting of the region, development of the terrace area, while not without impacts to resources, may have fewer resource impacts than development in the interior region.

Updating the Santa Monica Mountains/Malibu LUP

Although the LCP for Los Angles County is not fully certified and the County has not yet begun issuing coastal development permits, the Santa Monica Mountains/Malibu LUP (1986) acknowledged the problem of cumulative impacts from buildout. However, the LUP, as certified in 1986, did not include the TDC program as a means of addressing these impacts, but implied that extensive development in the Santa Monica Mountains would be unlikely; the LUP stated that the "existing undeveloped parcels in the Santa Monica Mountains are not likely to be developed" and that the "pace of development in the small lot subdivisions ... has been very slow in recent years" (CCC, 1986, pg. 32). The LUP further stated that it is "anticipated that a significant percent of these lots would not build out due to severe slopes, ... cost of development, ... and other constraints" (CCC, 1986, pg. 100).

Since certification of the LUP (December 11, 1986), the Commission has approved permits for new development on 1,326 parcels, excluding expansions, additions, or rebuilds for existing structures. Five-hundred ninety-four of those parcels are above the coastal terrace and 186 parcels are in the small lot subdivisions. Under this development, 970 single family residences, 21 multi-family residences, and 134 subdivisions were approved. While the Santa Monica Mountains/Malibu LUP stated that much of the area is unlikely to be developed, development *has* continued since certification of the LUP. Any additional development in the region continues to raise concerns of cumulative impacts. While the development analysis developed by ReCAP staff represents a scenario for the maximum extent of development that could occur in the region, it emphasized the need to continue addressing the impacts from development in the region.

Although the LUP did not include the TDC program as a means of addressing cumulative impacts, it included the following six alternatives to the TDC program:

1. Implementing a building cap. The LUP included an interim building cap of 1,581 residential units, after which additional development could not occur without improvements to Pacific Coast Highway. A final building cap of 6,582 residential units is also included, after which no additional residential development could occur. Under this policy, existing small lot subdivisions "shall not exceed 1200 residential units" (CCC, 1986, pg. 103).

2. Public agency acquisition of non-conforming lots and lots in designated significant watersheds. The LUP noted that this policy "will require the focusing of all public acquisition funds as rapidly as possible on outright purchase of the appropriate parcels". The LUP also recognized that in order to be an "effective program, the small lot reduction effort by many public agencies simultaneously must be managed through a coordination system and should have a consolidated annual work program..."
3. Offer tax delinquent lots to adjoining owners. This practice would provide incentives for acquisition and consolidation into larger properties.
4. Lot consolidation where ownership is contiguous.
5. Redevelopment technique, involving replatting the properties to provide for clustered development and adequate services. Appropriate where "further buildout will be consistent with the Local Coastal Program".
6. Lot exchange for surplus governmental properties in areas more suitable for development.

Since the LUP was certified, a number of changes in land use planning have occurred, including various court decisions and economic constraints on local governments, that may make some of the original alternatives to the TDC program less feasible than was thought in 1986. It is unlikely that the County will be able to address the cumulative impacts of development through an ultimate building cap, which would in effect completely prohibit new residential development once that cap is achieved. Because the LUP was developed and certified by the Commission prior to the City of Malibu incorporating into its own jurisdiction, the LUP encompasses the Los Angeles County portion of the Santa Monica Mountains and the City of Malibu. Based on ReCAP staff's estimates, 1,452 units and 258 second units have been approved in the Los Angeles County/City of Malibu portion of the region since December 11, 1986. An additional 529 units can be permitted in the L.A. County/City of Malibu area under the interim cap and 5,100 units remain before reaching the ultimate cap.

Four thousand seven hundred parcels are currently vacant and potentially developable in the Los Angeles County portion of the ReCAP area (including the City of Malibu). Even if *no* new subdivisions were permitted in the area, and only one unit were built on the remaining vacant, residentially zoned parcels, this potential development would still exceed the prescribed building cap. Therefore, even without additional subdivisions, numerous parcels could not be developed once the final building cap is reached. Further, development beyond the interim building cap is based on improvements to Pacific Coast Highway, which may be difficult, due to resource impacts and significant constraints to widening the road. Once the building cap is reached, there is no mechanism specified for addressing the next permit applicant for a residence on an existing lot. Therefore, the use of this policy raises concerns for adequately addressing the cumulative impacts of development in the region.

Several of the other alternatives proposed in the 1986 LUP depend on the availability of funds to carry out the proposed programs. Due to a variety of factors, including ongoing

economic constraints for local governments, implementing lot acquisitions or redevelopment plans may be difficult. In addition, until a strategy is in place to acquire lots, and money available, the impacts from approved new subdivisions must still be addressed. In some situations, the other options detailed in the LUP may work; however, the Commission has found that none of these options is self-implementing. Until the County establishes the programs, mitigation for all approved new subdivisions must be still be addressed. The most feasible method of mitigating the increases in density from new subdivisions is by assuring that no net increase in lots occurs by retiring existing lots under a TDC program.

Therefore, ReCAP staff recommends that Los Angeles County and the City of Malibu in their LCP planning adopt policies and measures to continue the TDC program, as modified by the above recommendations. This structure, covering the entire region, with the terrace remaining as the primary receiver area, would most effectively address the cumulative impacts from development in the region and would be the most protective of coastal resources. Because the TDC program by itself cannot fully address the problem of the extensive number of existing parcels, additional measures may need to be developed, preferably as part of L.A. County's LCP planning, to fully address cumulative impacts.

TDC programs for separate jurisdictions

While joint implementation of a TDC program would be preferred, the Commission recognizes jurisdictional issues may make the continued implementation of the program across two political jurisdictions difficult. If a joint TDC program cannot be implemented, both the County and the City should develop a TDC program within their jurisdictions, as part of their respective LCPs. Each program should ensure no net increase in the number of lots within each region. Development should be directed in those areas with the least resource impacts. Within the City of Malibu, a TDC program could consider directing development away from shorefront parcels unless the parcel is of an adequate size to ensure that development can be setback and will not require a shoreline protective device, including factoring in sea level rise. Other hazard areas could also be designated as donor areas. Within its jurisdiction, the County of Los Angeles could structure its TDC program to incorporate the preceding recommendations. In addition, the County should assess whether any areas within the County's jurisdiction are so constrained, that subdivisions should not occur, even with the implementation of a TDC program to mitigate the increase in number of parcels.

REDUCING IMPACTS FROM NEW DEVELOPMENT

ReCAP staff identified several additional opportunities to improve management of cumulative impacts outside of the TCD and GSA programs. These improvements would address weaknesses that currently exist in L.A. County's LUP and in the way the Commission deals with open space easements.

Preliminary Recommendation III -11	The County of Los Angeles should amend its LUP to reduce the maximum building pad size, and implement the new standard throughout the coastal zone, rather than only in the significant watersheds.
Preliminary Recommendation III -12	The Commission should revise any permit conditions for approval of subdivisions that require dedication of an easement to require that the applicant map the easement location.

Preliminary Findings:

Grading and building pad size

As a mechanism to reduce overall grading and its associated impacts, ReCAP staff recommends that Los Angeles County amend its LUP to reduce the maximum building pad size allowed. In 1986, the Santa Monica Mountains/Malibu LUP stated that the standard for a building pad is a maximum of 10,000 sq. ft. for parcels larger than 20 acres in a significant watershed. For areas outside the significant watersheds, the LUP had no explicit limit to the size of building pads. Commission staff has observed in reviewing permit applications that larger pad sizes have a potential for significant impacts on coastal resources, including more grading, more vegetation alteration, a greater potential for erosion and sedimentation, and, in some cases, more visual impacts. As shown in Figure 3-9, many of the existing parcels available for potential development do not even contain 10,000 square feet of unconstrained land, based on ReCAP staff's criteria defined previously.[20] For parcels in Los Angeles County that are too small to be subdivided as described in local planning documents, more than one-half do not even have 2,000 square feet of unconstrained land. As discussed previously, the development of these highly constrained parcels can lead to significant cumulative impacts.

Regardless of whether a parcel is located within the boundaries of a Significant Watershed, extensive grading will have cumulative effects on coastal resources. By not placing a limit on pad sizes outside of the watershed boundaries, the LUP policies encourage the development of larger structures and increased cumulative impacts from development. Therefore, ReCAP staff recommends that the County amend its LUP to reduce the size of building pads and implement the policy across its entire coastal zone.

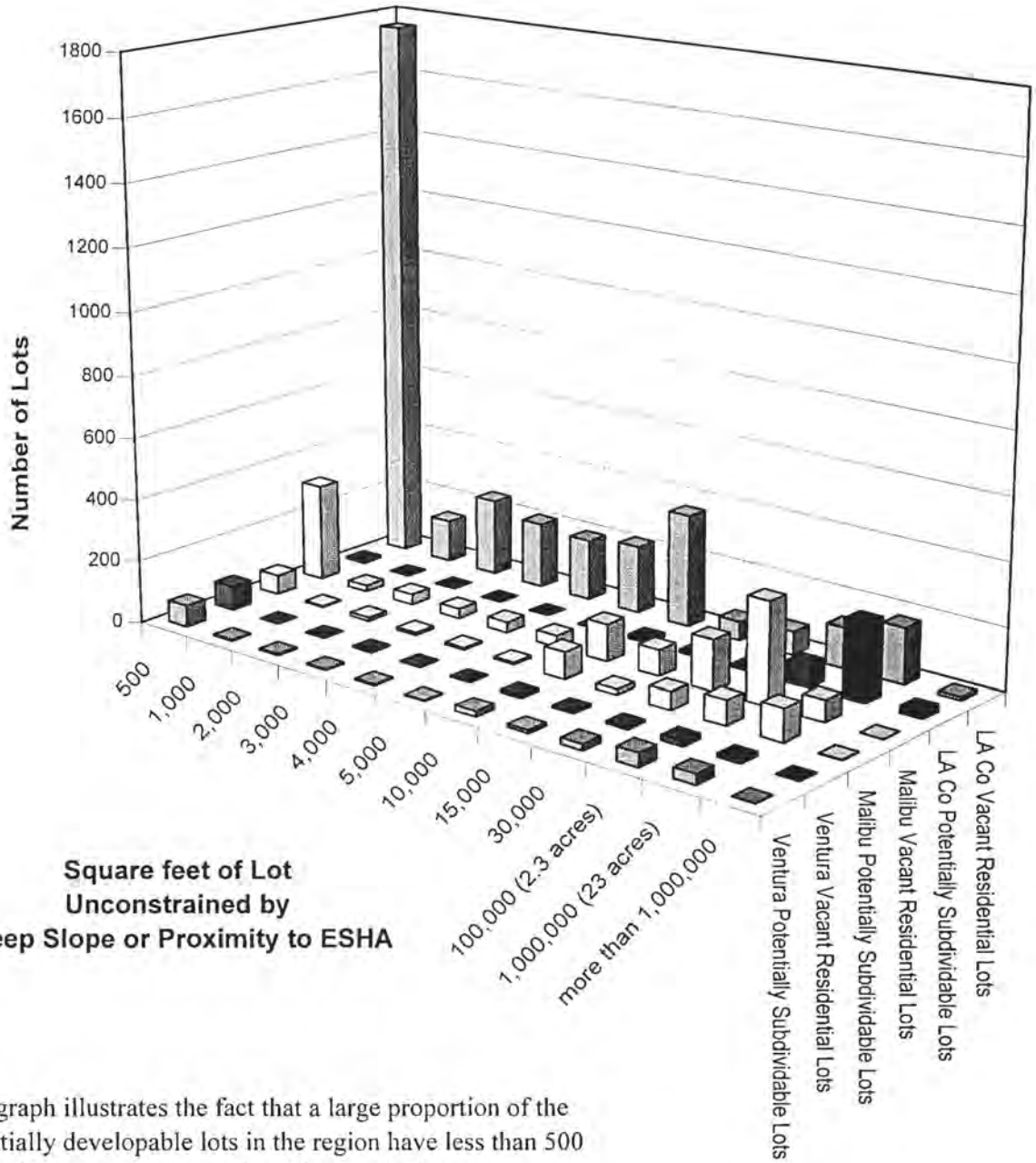
[20] This analysis also does not take into account the specific configuration of unconstrained land on a parcel (whether contiguous or scattered across the parcel), the proximity of such land to a road, the terrain over which an access road or driveway would pass, the possibility that the portion of the parcel with less than 25% slope may actually be a flat area atop a hill or ridgeline that would present visual impact problems, or that constraints other than the two limited constraint categories evaluated may be present. Any of these factors could change the apparent suitability of a parcel for development.

Implementation of the recommendation would further reduce the cumulative impacts on coastal resources.

Improving habitat protection

The Commission can also improve mitigation of impacts from development by requiring the applicant to map any open space easements required as part of a Commission approved permit. To mitigate impacts to habitat affected by proposed development, the Commission has often required an open space easement over portions of a parcel proposed for development. Within the wildlife corridors, this mitigation could further address cumulative impacts by minimizing fragmentation and protecting contiguous tracks of habitat. However, currently the Commission has no easy method to assure that the designated open space easement areas would result in contiguous habitat. Additional resources are needed to complete mapping of easements already required and ReCAP's development of a GIS will provide a valuable tool in this effort. By mapping existing required open space areas, and requiring that applicants map open space areas that the Commission requires in future permits, the Commission can contribute to the viability of the wildlife corridors by connecting open space easements in a way that ensures the protection of more contiguous, undeveloped areas.

Figure 3-9: Area of Unconstrained Land



This graph illustrates the fact that a large proportion of the potentially developable lots in the region have less than 500 sq.ft. of unconstrained land in which to site future development. This is especially true for lots in the unincorporated portion of Los Angeles County. To reduce the potential for cumulative impacts associated with development on steep slopes or near ESHAs, the County's LUP should be revised to reduce the maximum building pad size, which is currently set at 10,000 square feet.

Chapter 4: Public Access

OVERVIEW

The loss of coastal recreation opportunities resulting from development occurring over the past twenty years represents a significant adverse impact to coastal resources. Defined broadly, these opportunities include not only the physical availability of access sites and recreation areas, but also the ability of the public to reach and utilize these sites. One goal of the California Coastal Management Program is to ensure that maximum coastal access and recreational opportunities are provided consistent with the need to protect public rights, the rights of private property owners, and the need for coastal resource protection. Due to the historic, local, and regional importance of coastal recreation in the Santa Monica Mountains/ Malibu area, providing for public coastal access and recreation now and in the future is vital.

To ensure public access, the Coastal Commission and the three local governments in the ReCAP project area (Los Angeles County, City of Malibu, and Ventura County) must protect existing coastal access and ensure the availability of future access commensurate with the growing population and recreation demand within the region. Several policies in the Coastal Act work to meet this objective. The Coastal Act requires that development not interfere with the public's right to the sea (Section 30211); encourages the provision of lower cost visitor and recreational facilities (Section 30213); specifies the need to protect ocean front land suitable for recreational use (Section 30221); and requires the protection of upland areas to support coastal recreation, where feasible (Section 30223). In addition, the Ventura County Local Coastal Program (LCP) for the Santa Monica Mountains area contains policies to enhance the physical supply of coastal access, such as access dedications to mitigate access impacts from new development along the shoreline and in upland areas.

In the Santa Monica Mountains/Malibu project area, the supply of physical accessways to and along the 32 miles of shoreline, and the acreage of public parkland along the shoreline and in the mountainous inland region of the coastal zone, increased significantly between 1978 and 1996. The acreage of public parklands increased when Congress created the Santa Monica Mountains National Recreation Area in 1978 as a unit of the National Park Service, and when the California Department of Parks and Recreation expanded several existing State Parks during the 1970s and early 1980s. As a result of these actions, the 30,000 acres of public parklands present in 1979 expanded to approximately 50,000 acres by 1997 (Figure 4-1). The federal and state parks in the project area include spectacular tracts of open space and developed recreational sites that provide recreational opportunities such as swimming, surfing, fishing, picnicking,

camping, hiking, horseback riding, mountain biking, and nature study to over 33 million visitors annually (Los Angeles Times, 1998).

There are a variety of ways to define coastal access and to assess cumulative impacts on access. Coastal access is generally viewed as an issue of physical supply, and includes lateral access (access along a beach), vertical access (access from the upland street or bluff to the beach), coastal blufftop trails, and upland trails that lead to the shore or traverse inland parklands within the coastal zone. These inland parks provide significant access and recreation opportunities in the Santa Monica Mountains coastal zone, and are as important to coastal access as shoreline accessways.

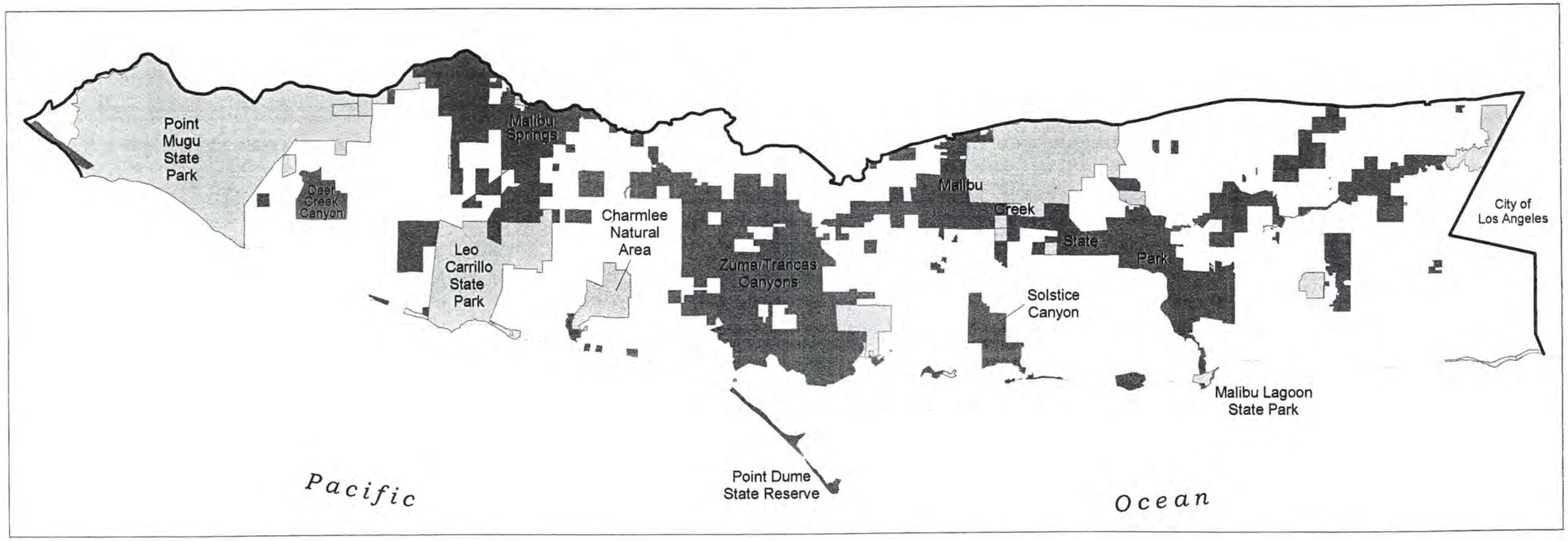
While the physical supply of access is a primary factor in assuring access opportunities, an access program cannot view the issue of supply in isolation of a number of other factors (CCC, 1995). These variables include the availability of transit to beaches, parking availability, providing other necessary support facilities such as restrooms and picnic areas, addressing user demands and conflicts, and maintenance of a diversity of coastal recreational experiences. Impacts to any one of these variables may ultimately affect the availability and use of the physical supply of access. For example, without adequate parking or alternative transportation, users will have difficulty reaching an access site. Similarly, a lack of adequate support facilities or a site that is perceived as over-crowded may make a site less desirable for some users. In other cases, the development of extensive support facilities, which often draws a larger number of users, may need to be balanced to protect sensitive resources. Therefore, managing coastal access and ensuring that growth and development does not cumulatively impact the resource, involves managing not only the physical supply of access, but all the other variables that contribute to ensuring maximum coastal access. As development and population increase, both within the project area and within the surrounding metropolitan area, the need to balance these objectives in determining how to "maximize" public access also increases.

Because detailed analysis of all these factors was beyond the scope of this project, ReCAP focused on examining the effectiveness of the Commission's shoreline and inland trail access mitigation within the ReCAP area. As documented elsewhere in this report, relatively little development occurred in the Ventura County segment of the project area, as a significant portion of the land here is federal and state parkland. As a result, the development impacts on public access and recreation here are not as extensive as in the balance of the project area. Therefore, ReCAP's analysis focuses primarily in Los Angeles County and the City of Malibu and recommends program improvements that will further the Coastal Act mandate of maximizing public access and recreational opportunities. The first section of the chapter discusses shoreline access; the second section addresses inland trails.

Figure 4-1
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Public Recreation Acquisitions from 1979 to 1997



Public recreation lands acquired between 1979 and 1997

Public recreation lands acquired prior to 1979

ReCAP Study Area Boundary

N
W E
S

0 1 2 3 4 5 Miles

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: Santa Monica Mountains Comprehensive Plan, 1979. Land Protection Plan within the Santa Monica Mountains National Recreation Area, 1997 digital map, NPS.

California Coastal Commission
ReCAP & Technical Services Division

SHORELINE ACCESS

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

IMPROVING EXISTING ACCESS OPPORTUNITITES

ReCAP staff identified several situations in which access to publicly owned lands could be improved.

Preliminary Recommendation IV-1	Los Angeles County should open El Sol Beach and Dan Blocker Beach.
Preliminary Recommendation IV-2	The California Department of Parks and Recreation should develop and submit for certification a public works plan for Malibu Bluffs State Park that provides for regional/state park uses. The City of Malibu LCP should include plans for alternative locations for local park uses. No expansion or reconstruction of athletic fields should be permitted.
Preliminary Recommendation IV-3	The California Department of Parks and Recreation and the City of Malibu should improve access to Point Dume State Preserve by improving the availability of parking in the area adjacent to or within the blufftop portion of the Preserve.
Preliminary Recommendation IV-4	Develop a comprehensive signage program to better identify public use opportunities and minimize conflicts between public and private use.
Preliminary Recommendation IV-5	In consultation with the State Lands Commission, identify and seek removal of all physical development, that encroaches into state tidelands areas.

Preliminary Findings:

In addition to its regulatory mandates, the Commission is required, under the Coastal Act, to develop and implement a public access program to maximize public access to and along the coastline and to coordinate with other federal, state, and local agencies responsible for providing public access. The ReCAP review of public access in the Malibu area has identified several opportunities for improving existing access opportunities.

El Sol and Dan Blocker Beaches

Several properties already in public ownership are underutilized for public access, including El Sol Beach and Dan Blocker Beach, which are both owned by the Los Angeles County Department of Beaches and Harbors. The El Sol property consists of a blufftop area leading down to a large cove beach area west of the existing Robert H. Meyer pocket beaches. Dan Blocker Beach consists of a 1500-foot long blufftop area comprised of several lots with a narrow sandy beach east of Latigo Point. Dan Blocker includes an eastern unit known as Corral Beach. While the Corral unit is open to public use, the remainder is fenced. Improvements necessary to make El Sol and Dan Blocker available to the public include stairs, parking and support facilities such as restrooms.

The Coastal Conservancy and Commission staffs have been worked with County staff to facilitate opening these beaches to public use. The Conservancy has indicated to Los Angeles County that funding is currently available for the development of the El Sol Beach property and has offered to make such funds available if the County will agree to undertake such development. In order to ensure that these beaches already in public ownership can be opened to provide additional public access, Commission and Conservancy staff should continue to encourage the County to open El Sol Beach and should continue to seek additional funding for facilities necessary to open Dan Blocker Beach.

The County has indicated that development of a paved parking lot on the bluff at Dan Blocker Beach might require the construction of a shoreline protective device. Los Angeles County should implement a short-term and long-term strategy for the development of parking and other improvements at Dan Blocker Beach. In the short term, it should develop stairways/trails, restrooms, and utilize on-street parking or an unimproved parking lot. Interim facilities would require fewer improvements but would assure public use. In the long term, the County should analyze the feasibility of, and potential impacts from, developing a paved parking lot and other facilities, including the necessity for a shoreline protective device. However, a full range of alternatives should be considered in designing such a project in order to avoid impacts to beach resources (See Chapter 5 below for a full discussion of the potential impacts from shoreline protective devices).

Malibu Bluffs Park

Another example of park property where coastal access opportunities may be maximized is Malibu Bluffs Park. This park area, owned by the California Department of Parks and Recreation, is a 93-acre coastal bluff parcel with direct access to Pacific Coast Highway. This park property was acquired in 1979 with $6.8 million of State Bond Act funds. In 1982, the Commission approved coastal development permit 5-82-780 (CCC, 1982a) for the construction of two temporary ball fields with parking improvements, restrooms, and trails. The ball fields were intended to replace, on a short-term basis, similar fields removed from Malibu Lagoon State Park to allow for wetland restoration. The ball fields at Malibu Bluffs State Park were permitted for a five-year period only (until 1987) and a special condition of the permit required the planned phasing out of the ball field use and identification of alternative sites for such use. The Commission later denied a permit amendment to allow the development of community uses over the entire park area. A second amendment to the permit was approved to allow for additional development and an extension to the time period during which the fields could be maintained on the site. However, the Commission found in these actions that there was an absence of regional serving public facilities such as parks and camping in the Malibu area and that demand for such uses would increase over time.

To date, no alternative sites have been identified for community-serving recreation uses like the ball fields. The ball fields, which are extensively used by local residents, remain in Malibu Bluffs State Park. An interpretive center developed in the park is primarily used as a community center. These local uses conflict with, and limit, the use of the State Park as a regional resource. As a means of providing public access and recreational opportunities, the Department of Parks and Recreation (DPR) should, develop the park with uses that would serve regional and state visitors. DPR is currently participating with the National Park Service (NPS) and the Santa Monica Mountains Conservancy, in the NPS's general management planning process for the Santa Monica Mountains National Recreation Area. Possible "visions" identified for future use of Malibu Bluffs State Park include: visitor education center; visitor center with surfing history, coastal ecology, and art exhibits; and visitor center with emphasis on marine ecosystems (NPS, 1998). To improve coastal access in the region, the City of Malibu should, as part of its LCP planning, designate alternative sites for the relocation of the temporary community uses in Malibu Bluffs State Park. The Commission should work with DPR to provide for regional and statewide public access and recreational opportunities.

Sections 30605 and 30606 of the Coastal Act provide a mechanism to implement a plan for Malibu Bluffs State Park, which would help assure regional uses. It is suggested that the DPR could prepare and submit to the Commission for certification, a Public Works Plan outlining the kinds, location and intensity of permitted uses. If approved by the Commission prior to certification of an LCP, the plan would become the standard of review for all future specific projects and would provide an alternative to project by project review. The plan could include specific measures for relocation of existing

facilities. However, it is essential that the City of Malibu, through its LCP planning, identify alternative locations for local community serving uses.

Point Dume State Preserve

Improvements at Point Dume State Reserve would also enhance public access opportunities. This 31-acre preserve includes Westward Beach, Dume Beach, Pirate's Cove, and an upland terrace/bluff preserve that provides spectacular views of the coast to the east and west. The upper blufftop portion of the park is designated a state preserve in recognition of the resources that exist there. In order to protect these resources, while also encouraging public access to the bluff and Dume Beach, the Commission approved Permit 4-97-048 (CCC, 1997a) for the development of a boardwalk and trails, along with the revegetation of approximately two acres. These improvements allow public use to be directed along a boardwalk and established trails rather than through a haphazard web of unplanned dirt paths.

In spite of these improvements, access to the entire preserve remains limited. A 376-space parking area serves Westward Beach, but Dume Beach and the blufftop portion of the park remain relatively isolated. Park users who want to access this beach and bluff area must hike from the parking area at Westward Beach up a trail to the top of the point, and then back down to the beach, a distance of approximately 800 feet. In addition, without securing a coastal permit, the City of Malibu has placed boulders and signs restricting parking along Cliffside Drive, adjacent to the bluff preserve, effectively prohibiting any parking and convenient access to the preserve. Further, new restrictions have been placed on parking on side streets that lead to Cliffside Drive. As a result, because no other parking spaces are provided within, adjacent, or nearby to the blufftop park areas, access is available only by walking on the sandy beach and hiking up existing trails on the bluff face. With a 200-foot change in elevation, traversing trails along the bluff face to the top is difficult, if not impossible for many members of the public. Additionally, no handicapped access exists to the blufftop area of the park.

These restrictions on access limit use of Dume Beach and the upper areas of the park to residents who live in the immediate area. Public access to the beach and blufftop may be improved by implementation of Cease and Desist Order No. CCC-97-CD-01 (CCC, 1997c). This order requires the City of Malibu to remove the signs and boulders it placed along Cliffside Drive without a coastal permit, or obtain a permit to allow retention of all or part of this development. To ensure that public access to Point Dume Preserve is improved, the Commission should continue to pursue the reinstatement of on-street parking adjacent to and in the vicinity of the park, and should encourage DPR to identify and implement alternative strategies for providing access to the blufftop areas of the park. Further, the City of Malibu, in its LCP planning, should include provisions for public parking adjacent to the blufftop areas of the park.

Signage Program

A comprehensive signage program to identify available access points from public roads would also improve access in the ReCAP area. Although some accessways are currently signed, such as the well-known "Zonker Harris" accessway on Pacific Coast Highway, many accessways are more difficult to locate and may only be recognized by the presence of a gate and garbage receptacle. Uncertainty about the exact location of accessways and proximity to existing development inhibit the public from the use of available access opportunities. The Commission and the Conservancy joint access program should develop a signage program, in conjunction with the entities managing various accessways and the California Department of Transportation, in order to enhance access opportunities in the Malibu area. Signs, which give information on the extent of public uses available, should be located along Pacific Coast Highway at the entrance of the actual accessways. Such information would also help to minimize potential conflicts between public and private property use.

Public access also would be improved in the project area by the removal of unpermitted physical development, like signs and fences on the beach, which inhibit public use of state tidelands. Throughout much of the ReCAP area signs stating "Private Beach" or "Private Property" have been placed on beaches. The presence of these signs is misleading and can intimidate the public from using public lands. Public ownership, and therefore the right to public access, is guaranteed seaward from the mean high tide line. Because the line where the mean high tide intersects the beach is an ambulatory boundary that moves to correspond to changes in the beach profile, these signs portraying the boundary between public and private property as a fixed line are inaccurate. Indeed, at many times these signs may be on public land.

In a recent permit decision for beachfront development, the Commission found it necessary to impose a special condition requiring that applicants not post any signs containing messages that attempt to prohibit public use of the beach (CCC, 1997b). Such a condition will serve to minimize conflicts between public and private use in the future. However, the existing signs and other obstacles, like fences on sandy beach area, need to be addressed. Placement of such signs and fences constitutes development under the Coastal Act and requires a coastal development permit. Additionally, many such uses appear to encroach onto state tidelands. In addition to inhibiting public access, the placement of physical development in state tidelands presents a hazard to swimmers, surfers, and boaters. The Commission should identify, in consultation with the State Lands Commission, all physical development, including signs and fences, which encroach into state tidelands areas. Commission staff should work to remove all such encroachments as soon as possible. If necessary, enforcement actions should be initiated to bring about such removal.

PARKING

For millions of southern Californians and visitors, going to the beach in Malibu means driving there. To beach users, parking is as critical a component of shoreline access as are the physical accessways themselves. The scarcity of beach parking in Malibu has led to conflicts between visitors and local residents. ReCAP staff have identified two ways of improving the situation: one to increase the supply of beach parking, the other to help the Commission better protect the existing supply.

Preliminary Recommendation IV-6	The City of Malibu should develop a strategy in its LCP to utilize parking for office and commercial development near beach areas for public access parking in off-peak periods.
Preliminary Recommendation IV-7	The Commission should inventory existing available parking along Pacific Coast Highway and public roads seaward of Pacific Coast Highway to establish baseline data to prevent future loss of access through unpermitted signage or construction of physical barriers.

Preliminary Findings:

The availability of parking is a critical component of public access to the shoreline. Beach access parking may be located in public parking lots or along public roadways. Table 4-1, on the following page, shows the availability of parking at public beaches in the ReCAP project area. Historic figures for parking at public beaches were not available. Furthermore, staff is not aware of any existing inventory of available on-street parking spaces. However, the Commission has found, in its actions on permit applications in the Malibu area, that public parking is a valuable resource necessary for public access. In areas where there are no public parking lots, on-street parking may be the only parking available. Additionally, on-street parking can provide low-cost access to public beach areas where fees for parking can range from $2 to $6 per day[1], and may be the only access available at inland trailheads. Potential impacts to public beach parking include increased development along the shoreline and public roads which leads to increased competition for available spaces, inadequate provision of off-street parking for new development, and proliferation of "No Parking" signs and zones.

In order to minimize impacts to public parking, the Commission has required that new development provide adequate off-street parking. The Commission has found that

[1] Parking fees for private recreation facilities can be higher. For instance, the parking fee at Paradise Cove is $15 per day.

commercial projects in particular can impact access through inadequate provision of off-street parking. If commercial enterprises do not provide adequate off-street parking for their patrons, people will utilize on-street parking areas for overflow parking. This can negatively impact access by reducing the potential on-street parking which would ordinarily be available for beach-goers. On-street parking is usually limited at best. Parking provisions to ensure sufficient off-street parking were included in the Malibu/Santa Monica Mountains LUP certified in 1986.

Table 4-1:
Existing Public Beach Parking

BEACH	PARKING SPACES
Point Mugu State Park:	
Point Mugu Beach	Off-road
Thornhill Broome Beach	Camping Only
Sycamore Cove Beach	143 spaces
Leo Carrillo State Beach	327 spaces
Staircase Beach	22 spaces (dirt lot)
Nicholas Canyon County Beach	135 spaces
El Pescador State Beach	40 spaces
La Piedra State Beach	16 spaces
El Matador State Beach	20 spaces
Zuma Beach County Park	2102 spaces
Point Dume State Reserve	376 spaces (at Westward Beach)
Malibu Lagoon State Beach	75 spaces (Lot and Roadside)
Malibu Pier/Surfrider	193 spaces (100 State Parks, 93 County)
Las Tunas State Beach	Dirt Shoulder
Topanga State Beach	270 spaces

Source: Richard Rozzelle, California Department of Parks and Recreation; Phil Patton, Los Angeles Department of Beaches and Harbors, Personal Communications.

Joint Use Parking

The Commission has also required that non-visitor serving commercial and office development provide for the use of their parking facilities by beach-goers during off-peak office periods like weekends and holidays. This condition has been required in permit approvals for such projects along Pacific Coast Highway and in the Malibu Civic Center area. This joint-use of parking areas can greatly enhance access to the beach. However, such developments have not been monitored to ensure that this public parking is provided. Furthermore, joint-use parking would be most effective if it were utilized in a coordinated program, along with shuttle or transit service. The Malibu/Santa Monica Mountains LUP contained provisions for such a program, but to date none was ever developed. The City of Malibu should, in its LCP planning, include policies requiring

joint use of parking in commercial office projects as well as pursuing a shuttle or transit program.

Parking Inventory

Given the lack of baseline information on the amount or location of on-street parking, it is difficult and time consuming to quantify the cumulative impacts to available parking that may have occurred in the past. It can be very difficult to identify new "No-Parking" signs or other signs that restrict parking. However, such barriers to public parking have occurred in the ReCAP area. For instance, the Commission denied Permit 4-93-135 (CCC, 1993a) for the placement of "No Parking" signs on the inland side of Pacific Coast Highway along Zuma Beach County Park. The Commission approved with conditions Permit 4-93-101 for "No Parking" signs along an inland trail easement at the entrance to Winding Way Rd. (CCC, 1993b). Additionally, the Commission denied Permit 4-93-134 (CCC, 1993c) for the placement of barriers for the creation of a one-way street because to do so would reduce access to a public street and parking adjacent to Point Dume State Reserve. Finally, the Commission issued Cease and Desist Order CCC-97-CD-01 (CCC, 1997c) requiring the City of Malibu to rescind unauthorized parking restrictions and remove unpermitted parking restriction signs and boulders on Cliffside Drive adjacent to Point Dume State Preserve. This matter has yet to be resolved, and in the interim, the boulders and signs reduce access opportunities. The proliferation of such restrictions can cumulatively result in the loss of parking available for the public to gain access to the shore, even in areas where there are open accessways or public beaches.

A comprehensive inventory of existing on-street parking, including any existing restrictions would allow future monitoring of parking availability. Additionally, other potential losses of public access parking could be more readily identified. Any new parking restrictions through signs, red-curbing, or other means that are undertaken without coastal development permits would be subject to enforcement action by the Commission. The Commission should seek funding to carry out such an inventory as a means to minimize cumulative impacts to public beach parking.

IMPROVING ACCESS MITIGATION MEASURES

Offers-to-dedicate access easements (also referred to as OTDs) are a primary mechanism used by the Commission to mitigate cumulative adverse impacts to public access. A number of OTDs have been required in the Malibu area as a condition of approval for shoreline projects, but significant work remains before the full potential of the intended mitigation can be realized.

Preliminary Recommendation IV-8	Commission staff should continue to coordinate with the Coastal Conservancy and other public agencies or non-profit organizations to accept all existing vertical and lateral OTDs to ensure that no offers expire and to develop, as necessary, and open accepted access easements. The Commission and the Conservancy should also provide funding (from Malibu Beach Access Fund, permit fee fund, violation remediation fund, and other sources) to public agencies or non-profit organizations for the development, operation and maintenance of accessways.
Preliminary Recommendation IV-9	The Commission should enforce terms of recorded access and trail OTDs and deed restrictions, including requiring removal of encroachments. The Commission should improve its access mitigation condition compliance by including as part of any access condition the requirement that applicants map the location of the easement on air photos and project plans. Where access is proposed as part of the submitted project, filing requirements should include such mapping.
Preliminary Recommendation IV-10	As part of its LCP planning, the City of Malibu should incorporate policies designed to minimize and mitigate impacts of development on public access, including policies to require access offers-to-dedicate (OTDs) to mitigate demonstrated impacts to public access. The LCP policies should include details on a program to implement OTDs, including timing for developing each OTD, funding sources for construction of improvements and operation costs, and City departments responsible for implementation.

Preliminary Findings:

The beaches of Malibu are extensively used by local and regional visitors; most planning studies indicated that attendance of recreational sites will continue to significantly increase as the population of surrounding areas increases over the coming years. The public has a right to use the shoreline under the public trust doctrine, the California Constitution, and California common law. The Commission must protect those public rights by assuring that any proposed shoreline development does not interfere with those rights. The major access issue in the beachfront permit applications considered by the Commission is the occupation of sandy beach area by structures such as houses and seawalls, which have the potential to affect shoreline sand supply and public access.

As discussed further in Chapter 5, development along the beach, particularly the placement of shoreline protective devices, has a number of effects on the dynamic shoreline system and the availability of public land. As a result, development can often

lead to significant impacts on access opportunities. Development on a beach often leads to a change in the beach profile. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area in which the public can pass on its own property. This steepening of a beach can also lead to a progressive loss of sand on the beach. This material is then not available to nourish the offshore bar; this bar usually provides the sand to replenish beaches after winter storms. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. The net effect is a smaller beach area.

In addition, shoreline protective devices such as revetments and bulkheads cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches, further exacerbating the changes in beach profiles. This effect may not become evident until such devices are constructed individually along a shoreline and they reach a public beach. If not sited landward in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave's energy. Finally, revetments and bulkheads interfere directly with public access by their occupation of beach area.

Based on these potential impacts, and the access, recreation, and development policies of the Coastal Act, the Commission has often required that new shoreline protective devices be located as landward as possible in order to reduce adverse impacts to the sand supply and public access resulting from the development. In addition, the Commission has also required that public access to or along the shoreline be provided in new development projects to mitigate adverse impacts to beach sand supply and public access from the proposed development. The access mitigation is usually accomplished through an offer-to-dedicate (OTD) an easement for public use. As Table 4-2, on the following page, shows, while progress has occurred, not all mitigation has been completed. To date, 15 vertical access OTDs have been recorded. Additionally, the lateral access OTDs noted as recorded are located across 348 parcels, approximately 20 percent of beachfront parcels.[2]

However, the recordation of an OTD does not ensure public access; the offers must first be accepted by a managing entity, and, for vertical easements which often require some improvements, specifically opened for public use. Figure A-3(a-f), in the Appendix,

[2] The number of recorded easements from the Access Program database is greater than the number the ReCAP database shows for easements required because the Access Program data includes access conditions required on permits prior to 1978. ReCAP's data for permits is limited to 1978-1996. In this case, ReCAP staff chose to report data for the longer period of time because staff wanted wherever possible to make use of existing data and it offered an opportunity to provide a more complete assessment of access status.

Table 4-2:
Status of Offers to Dedicate Public Access[3]

	Type	Number Recorded	Number Opened	Number Remaining to be Accepted/Opened
Lateral Access	Offer to Dedicate an Easement	262	100	162
	Deed Restriction	180	180	0
	Other Legal Instruments[4]	33	33	0
Subtotal		**475**	**313**	**162**
Vertical Access	Offer to Dedicate an Easement	15	4	11
	Deed Restriction	9	0	9
	Other Legal Instruments	2	1	1
Subtotal		26	5	21
Overall Totals		501	318	183

Source: CCC, Access Program Database; State Lands Commission data.

shows the existing open accessways, vertical access opportunities,[5] lateral access easements, and public beach areas. Based on this information it becomes clear that the chief mitigation measure required by the Commission to offset the impact of development on public beach access in the ReCAP area has not been entirely effective. While development has been allowed to proceed, the mitigation has, in many cases, not been completed. Furthermore, an access easement offer to dedicate is valid for a limited time period. If not accepted during that period, an offer could expire. The Commission and the Coastal Conservancy have entered into a Memorandum of Understanding whereby the Conservancy agrees to accept priority outstanding offers to dedicate prior to expiration.

To ensure full mitigation of development impacts that have already occurred, the Commission must ensure not only that all existing OTDs are accepted prior to their expiration dates and then opened, but must also assure that *future* OTDs are accepted and available for use. A variety of factors have contributed in the difficulty of getting access OTDs accepted and available to the public, including: 1) lack of spatial information

[3] There are also nine vertical accessways in the Malibu area which have been open to the public prior to the inception of the Coastal Act.

[4] Other legal instruments include cases (generally earlier permits) where the Commission implemented mitigation through use of other mechanisms, for example, contracts with property owners.

[5] Vertical Access Opportunities are those OTDs for vertical accessways that have been recorded but not yet accepted by a managing entity or open for public use.

about the location of easements; 2) lack of funding for easement development, operation, and maintenance; 3) questions about liability; and 4) the encroachment of development into the easement area.

Spatial Information

In order to accept and open accessways, it is important to know the location of the recorded easement in relation to public roads, geographic features, and existing development on the site. Most recorded OTDs and easements are identified by legal description only. Mapping all of the easements for an area is difficult and time consuming, yet is a critical process in evaluating the feasibility of opening the easement for public use. One necessary step is to map the location of each easement with regard to property boundaries and existing development on the site. A joint project between the Commission's Access Program and Technical Services Division has accomplished the mapping of all recorded vertical easements in the Malibu area. All vertical access opportunities have been mapped on the GIS developed for this ReCAP project. Each access point shown on the area map is linked to an assessor's parcel map and aerial photograph of the site with the configuration and location of the recorded easement superimposed. Figure 4-2 is an example of the information available from this project. This information can be used to assist in coordination between the Commission, Coastal Conservancy, and potential accepting entities. As discussed below, it can also help the Commission and local government in review of development projects to avoid encroachments. The Commission should make this product available to potential accepting entities, both through a paper format and an electronic format, for instance, on a compact disk.

Funding

The problem most often cited for the inability to open and operate additional access points in Malibu, particularly by local governments, is the lack of ongoing funding. Even when special funding like grants and bond funds is available for capital improvements, the recurring costs for operations and maintenance must be absorbed into limited parks and recreation budgets. New funding sources, not previously available, could now be used to develop, operate, and maintain accessways, and could provide the funding necessary for a managing entity to agree to accept OTDs. A recent amendment to the Coastal Act[6] [SB72 (McPherson)] provides for coastal development permit fees collected by the Commission to be deposited in the Coastal Access Account, to be administered by the State Coastal Conservancy Fund. The Legislature may appropriate this money to the Conservancy for grants to public agencies and nonprofit entities or organizations for the development, maintenance, and operation of new and existing access facilities. Additionally, a portion of the fees collected for the Coastal License Plate are to be used by the Coastal Conservancy for coastal access improvements. Further, the Malibu Beach Access Fund, consisting of in-lieu fees required through permits for non-visitor serving

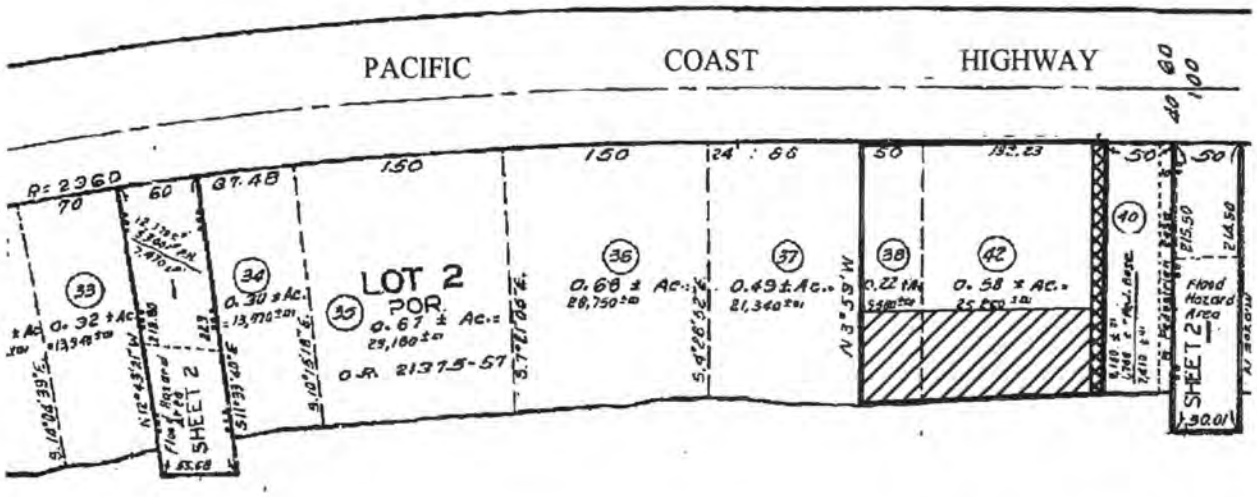
[6] This amendment was effective January 1, 1998.

Figure 4-2
Preliminary Draft

Public Access - Dedicated Easement

CYRANO RESTAURANT (Zonker Harris) (CDP# P-73-1526)

Malibu, Los Angeles County



Note: Area seaward of the mean high tide line is owned by the State of California.

10 Foot Wide Vertical Access Dedicated Easement (Extends from Northerly Property Line to Mean High Tide Line)

Lateral Access Dedicated Easement (Extends 50 Feet Inland From The Mean High Tide Line)

Property Boundary
L. A. County APN 4452-004-038 & 4452-004-042

N

0 100
Feet

Note: All Locations Approximate. For Illustrative Purposes Only.

California Coastal Commission
Coastal Access Program

Source: California Coastal Commission Access Program
Base Map Source: L. A. County Assessor 1997

RR, 3/98

commercial projects, is to be used to improved beach access in the Malibu area. The Commission should coordinate with the Conservancy to make available funds to public agencies or non-profit organizations willing to accept, open, and operate vertical access easements.

Liability

Another barrier for potential accepting entities, particularly non-profit organizations, is a concern over possible liability. Limited immunity is provided for public entities managing land for public recreation. Non-profit public land trusts can be protected under similar immunities if they enter into an agreement with the Coastal Conservancy. In 1997, the Coastal Conservancy and Commission published the technical bulletin, "Limitations on Liability for Nonprofit Land Managers", which provides information on the question of liability for potential acceptors and operators of public access easements. Commission and Conservancy staff should continue to coordinate with local governments and non-profit organizations to resolve liability concerns.

Encroachments

Additionally, the encroachment of development within access easement areas complicates the acceptance and opening of such easements. Commission and Coastal Conservancy staff review of the outstanding access easements in the Malibu ReCAP area has revealed that development has encroached into many of the recorded easements. Examples of such encroachments include fences, gates, stairs, seawalls, mature trees, and other landscaping. Perimeter fencing or landscaping of the project site, where fencing or landscaping extends around the dedicated easement area and blocks the accessway from the street, is typical of the encroachments on vertical access easements found by staff during site investigations.

Offers to dedicate, in many cases, are not required to be made available to the public until such time as the easement is accepted and managed by a public agency or non-profit organization. Encroachments make the ability of a public agency or non-profit to accept, open, and operate accessways more difficult. Before an accessway with encroachments can be opened, the Commission would need to enforce the terms of the easement and require the property owner to remove all encroachments. Any access improvements like trails or stairways can only be made available to the public after the easement is free of encroachments. The added complexity of removing encroachments may inhibit public agencies or non-profit organizations from accepting access OTDs. Additionally, accepting entities, particularly non-profit organizations typically have limited ability or expertise in enforcing legal requirements.

In order to facilitate the acceptance of access OTDs, development encroaching into the easement area should be removed, unless the object is specifically allowed based on the OTD language. Commission staff should work with the underlying property owner to

remove all such encroachments prior to acceptance of the easement by a public agency or non-profit organization. As a last resort, enforcement actions should be initiated to bring about compliance with the terms of the recorded easement.

To reduce the problem of encroachments in the future, the Commission should require specific easement mapping in future applications or when conditions are applied to mitigate development impacts. Applicants should be required, as part of complying with an access condition, to map the required easement on an aerial photograph and topographic map and to provide a survey of the easement on the project plans locating the easement in relation to existing and proposed development. Such graphic depictions of the easement should be recorded so that it is clear to Commission staff, local government, present and future property owners, potential acceptors of the easement, and the public where the access easement is to be located on the project site. Any conflicts between the required easement area and proposed development on the site would become obvious before such development would be actually constructed. In this way, the potential of encroachments would be minimized. Additionally, site inspection by Commission staff during and after construction should be required to ensure development does not encroach within any required easement area.

Distribution of Public Access

The certified Malibu/Santa Monica Mountains Land Use Plan (LUP) contained guidance relating to the provision of public access, including provisions concerning easement dedications, beach management agreements; the need for determinations of public tidelands through the State Lands Commission; financing for accessways through the Malibu Beach Access Fund; protection of prescriptive rights; and spacing of vertical accessways.

To provide maximum access opportunities and to minimize overburdening any particular area, vertical access locations need to be distributed throughout the ReCAP project area. In certifying the Santa Monica Mountains/Malibu LUP, the Commission approved goals to be used for the provision of vertical access for each beach segment. In approving the LUP, the Commission recognized that different spacing of vertical accessways was appropriate for different characteristics of the beaches in Malibu. Closer spacing (one accessway per 1,000 ft.) was provided where population density was higher and the distance from the first public road to the beach short. Greater separation (one accessway per 2,500 ft.) was allowed where population density was lower and where constraints like steep bluffs make the development of accessways more difficult and costly. Finally, provisions were included to ensure protection of sensitive resource areas from unrestricted public access. In certifying the LUP, the Commission found that:

> Applying the standards of separation for each beach as described above will result in the creation of approximately 50 vertical accessways, in addition to public parks and beaches. The Commission finds that this number of vertical accessways in Malibu, if

and only if implementation is assured by the LCP, will provide reasonable access to the public tidelands. Furthermore, the standards will distribute that access in such a way as to avoid overuse of any one area, while recognizing the different characteristics of the beaches in Malibu (CCC, 1987).

As discussed in detail below, all of the recorded access opportunities have been identified and mapped for the project area. The distance between existing beach access, including open public beaches, was measured and compared to the guidance provided in the LUP for each beach. Figure 4-3 shows the distance between public beach areas and open accessways for the whole ReCAP project area. ReCAP's analysis indicates that the extent of public access that the Commission previously identified as being necessary in its action certifying the LUP has not been implemented. (Section IIID in the Appendix summarizes this comparison.)

Although the Commission in past permit decisions has used the LUP policies as guidance, the LUP is not legally binding on the City of Malibu. Based on the above analysis, it is clear that the amount of beach access that the Commission has previously found to be sufficient to comply with the policies of the Coastal Act for the project area has not yet been realized. To maximize public access, the City of Malibu should incorporate the existing LUP policies and the above recommendations into its LCP.

VENTURA COUNTY ACCESS POLICIES

Because of the dynamic nature of the shoreline, the boundary between private land and public trust land is constantly in motion. The State Lands Commission is the agency with the authority to determine the furthest inland extent of public tidelands. To prevent private development from encroaching on public tidelands, State Lands Commission review should be performed on any project along the shoreline.

Preliminary Recommendation IV-11	The County of Ventura should improve their permit review procedures to provide for obtaining State Lands Commission reviews on the boundary between public tidelands and private property as a part of filing requirements for new development along the shoreline. The County of Los Angeles and the City of Malibu should include such a requirement in their LCP planning process.

Preliminary Findings:

The County of Ventura Certified Local Coastal Program (LCP) has the following objective: "To maximize public access to the South Coast sub-area consistent with private property rights, natural resources and processes, and the Coastal Act; to maintain existing access, and seek new access as funds become available." The LCP requires the mandatory granting of an easement for vertical and lateral access except where certain conditions are met. The lateral access policy further states that "all fences, no trespassing signs, and other obstructions that may limit public lateral access shall be removed as a condition of development approval." Finally, a policy regarding beach erosion states that: "Permitted shoreline structures will not interfere with public rights of access to the shoreline." The County's Coastal Zoning Code makes clear that any development proposed on state tidelands is subject to the original permit jurisdiction of the Commission. However, there is no explicit requirement for consultation with the State Lands Commission for determinations regarding the location of public tidelands on potential development sites.

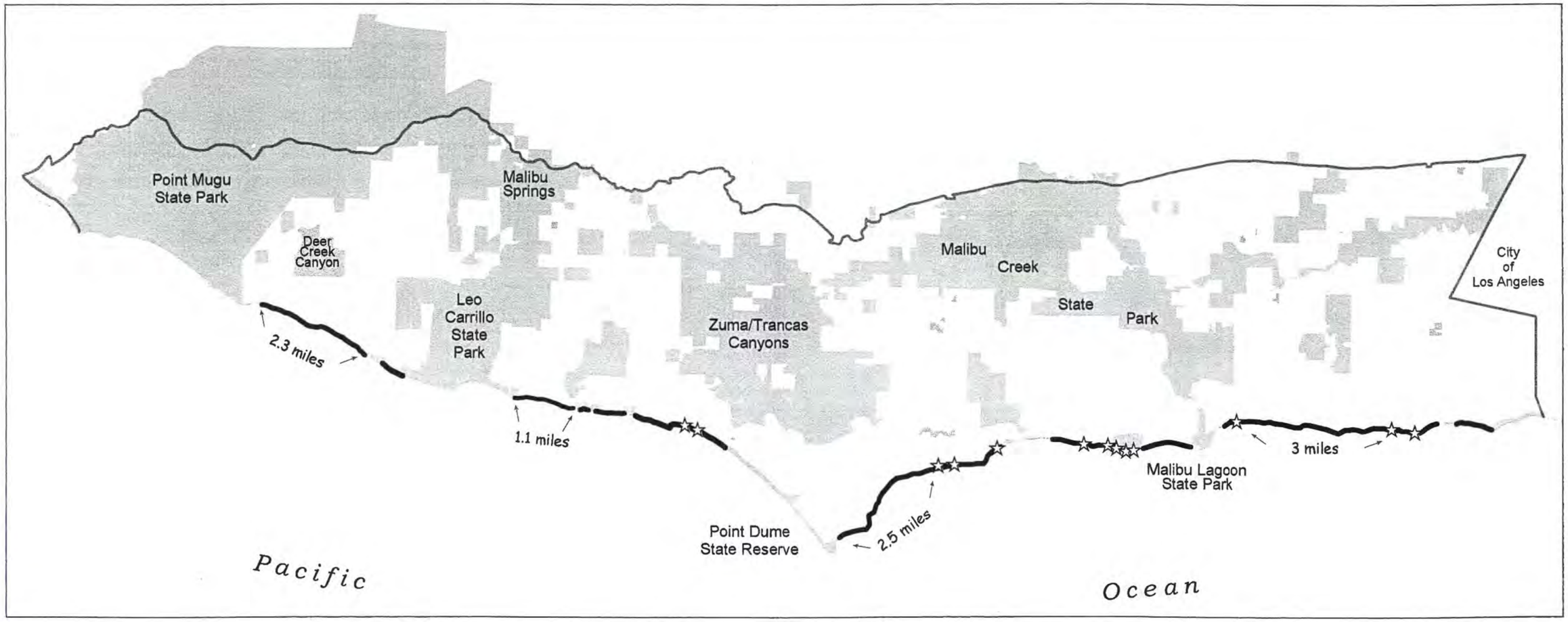
> An ***ATF*** (or "After the Fact") permit is a coastal development permit filed by the applicant after a development has occurred in order to seek consistency with the Coastal Act and to authorize the development.

The County of Ventura has considered few permit applications for development on beachfront lots since certification of its LCP in 1983. The majority of the post-certification coastal permits, issued by the County, on beachfront lots are for minor development such as additions to existing residences of decks, pools, and cabanas. In one case (County of Ventura, 1989), the County approved the demolition of a single family residence and the construction of a new 5,600 sq. ft. single family residence. In approving this development, the County found that adequate vertical access existed within a reasonable distance (¼ mile) and required the recordation of a lateral access easement only. This permit was later amended (County of Ventura, 1990) by the County in order to give after-the-fact approval for a vertical seawall already constructed along the seaward edge of the approved residence. After notification of this amendment, Commission staff requested that the State Lands Commission review the project in order to ensure that no development would be located on public tidelands. State Lands Commission staff determined that the development would not be located on state tidelands. Nonetheless, this project indicates the need for the County of Ventura to improve their permit review procedures to address measures for obtaining State Lands Commission determinations of the boundary between public tidelands and private property as a part of filing requirements. Policies should be added to the LCP to require such determinations.

Figure 4-3
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Overview of Existing Access to the Shore



☆ Existing Vertical Accessways Parks Areas of Shoreline Lacking Vertical Access ReCAP Study Area Boundary

Distances noted are examples of the longest stretches of shoreline without vertical access.

N W E S

0 1 2 3 4 5 Miles

California Coastal Commission
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

REGIONAL ACCESS GUIDE

Although the Commission's Coastal Access Guide includes information about public access in the Malibu area, it is difficult for the Commission to update the Guide and distribute new information to the public every time there is a change. New tools developed as a result of this ReCAP could be used to produce access information to augment the Guide.

Preliminary Recommendation IV-12	Develop and publish a regional access guide for the Malibu area.

Preliminary Findings:

The development and publication of a regional access guide for the Malibu area would significantly enhance access opportunities in the region. The ReCAP project has included the development of a geographic information system (GIS) with a parcel base map. Using this base, a detailed map of existing accessways, public beaches, and other public access opportunities could be developed for the Santa Monica Mountains/Malibu area. This would augment the statewide information currently provided in the Coastal Access Guide. A "portable" brochure or card format could be developed that visitors could obtain in the local area and carry with them. Such a guide could be distributed at local government offices, visitor centers, parks, etc. Additionally, this regional access map could be published on the Commission's Web site, with links to photos of accessways and beaches available for public use. One advantage of the GIS map is that it could be easily updated to reflect new access opportunities, as they become available. This access enhancement is dependent upon allocation of additional resources to the Commission's Access Program to develop and publish a Malibu Access Guide.

PUBLIC LANDS AND INLAND TRAILS

The Santa Monica Mountains area provides an extensive network of public hiking and equestrian trails that traverse and connect Federal, State, and County parklands, and a system of heavily used historic trails on private lands. These trails also serve as alternative means of access to beach and mountain parklands. In order to preserve and formalize the public's right to use these trails, Los Angeles County adopted the Malibu/Santa Monica Mountains Trails Plan in 1983. The Plan identifies 23 proposed trail routes, including: (1) the Backbone Trail, a 70-mile-long route along the crest of the mountains leading from Topanga State Park to Point Mugu State Park in Ventura County;

(2) the Coastal Slope Trail, connecting Leo Carillo State Beach with the Backbone Trail near Saddle Peak; and (3) cross-mountain lateral trails linking the populated San Fernando Valley with the numerous mountain and beach parks in the project area. The public parklands, beaches, and other areas made accessible by the hiking and equestrian trails identified in the Trails Plan, and the spectacular coastal and mountain views from these trails, are among the coastal resources protected by the public access and recreation policies of the Coastal Act. However, the existing, interconnected system of public and historic trails, widely used by the public to access and enjoy the parklands of the Santa Monica Mountains, is at risk today by the ongoing conversion of undeveloped, privately owned lands to housing and other development.

In permitting residential development during the past twenty years, planning and regulatory agencies found that in order to ensure that the public would continue to be able to use existing hiking and equestrian trails, adverse effects to those trails arising from such development would need to be minimized and, if necessary, mitigated. In its coastal development permit actions, the Commission required an offer to dedicate (OTD) an easement for public inland trail use when proposed development would adversely affect the public's ability to use one of the trails identified in the Trails Plan or another trail known to be used by the public. As guidance, the Los Angeles County LUP (1986), which incorporated the 1983 Trails Plan, included policies which called for mapped trails to be dedicated at the time of development of property on which the trails are located or where the Commission has previously required trail easements. The LUP included provisions to deduct the area from the parcel area for tax assessment purposes as an incentive to protect historic trails and contains requirements to protect the trail from development impacts. The LUP also contained numerous other policies supporting the development of a regional system of trails to provide access to and between the beach and mountain parks of the region.

The Ventura County LCP contains several policies supporting the regional trail system, including Policy A8:

> Development shall neither preclude continued use of, or preempt the option of establishing inland recreational trails along identified routes, as indicated in the Santa Monica Mountains Comprehensive Plan (1979), and the Coastal Slope Trail as proposed in the U.S. Department of the Interior's Santa Monica Mountains Draft Environmental Impact Statement and General Management Plan (September 1980), or along routes established by custom to destinations of public recreation significance. An offer-of-dedication or a deed restriction of a trail right-of-way shall be required as a condition of approval on property crossed by such trail routes.

The population increases projected in the ReCAP project area and Los Angeles and Ventura Counties will increase demand for coastal recreational opportunities, including

publicly accessible trails in the Santa Monica Mountains. The following recommendations address continued protection of trail access in the ReCAP area.

IMPROVING TRAIL ACCESS MITIGATION

As with shoreline access, offers to dedicate inland trail easements have been an important element of the Commission's program to maximize public access and recreational opportunities in the ReCAP study area. ReCAP staff has identified several measures that would improve the effectiveness of previously required mitigation, and help assure that future mitigation measures are fully implemented.

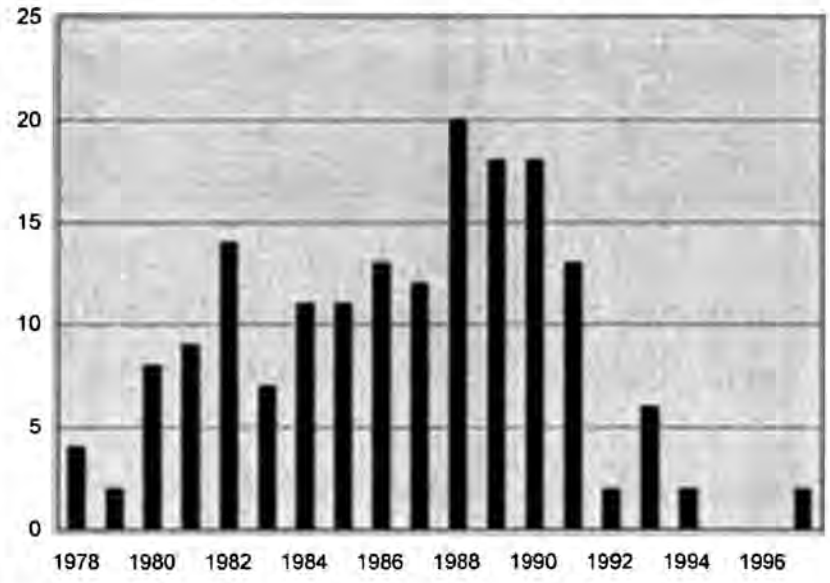
Preliminary Recommendation IV-13	Pursue development of a Memorandum of Understanding to designate a principal management agency to directly accept future inland trail easement dedications, thereby eliminating the need for an offer-to-dedicate (OTD), when a public trail easement dedication is an element of a coastal development permit application. Revise the Commission's special condition language to require dedication of a trail easement, rather than an OTD.
Preliminary Recommendation IV-14	Establish the following as priority tasks for the Statewide Access Program: (1) map the location of the eight accepted and 80 recorded inland trail OTD easements; (2) rank the 80 recorded inland trail OTD easements in priority for acceptance by qualified public agencies and private organizations; and (3) assist those agencies and organizations to accept and open for public use high-priority recorded inland trail OTD easements.
Preliminary Recommendation IV-15	Modify Commission permit filing requirements to include the submittal of mapped documentation locating any recorded inland trail easement, recorded inland trail OTD easement, or known prescriptive trail easement in relation to proposed development. Require LCP planning in the County of Los Angeles and City of Malibu to include similar measures and other policies and standards to prevent encroachment of development, and to remove non-permitted encroachments, on any area covered by a recorded inland trail easement or by a recorded inland trail OTD easement.

Preliminary Findings:

One of the major tools that the Commission and Ventura County used until the mid-1990s to mitigate development impacts on the trail system in the ReCAP study area is a permit condition requiring the recording of an offer-to-dedicate (OTD) a public inland trail easement. As noted previously in this section, recordation of an offer to dedicate a trail easement does not ensure the availability of public access. A recorded offer must be accepted, opened, and managed by a public agency or acceptable non-government entity before the land becomes available for public use. The Ventura County LCP does not require, nor did the Los Angeles County LUP include guidance calling for, any agency or entity to accept offers-to-dedicate public inland trail access easements.

Between 1978 and 1997 the Commission required an offer to dedicate a public inland trail easement as a special condition of approval on 172 coastal development permits to mitigate adverse trail access impacts that would arise from proposed development. (The 172 permits represent 4.3% percent of the approximately 4,000 permits acted on by the Commission; however these permit approvals are not equivalent to permits issued or projects constructed.) This figure includes multiple permits on individual project sites, but represents a total of 210 individual parcels. As shown in Figure 4-4, trail OTD condition requirements peaked in the period 1988-1991.

Figure 4-4:
Inland Trail OTDs Required



Source: ReCAP Database, 1978-1996

Most of the OTD requirements were associated with parcels crossed by or adjacent to trails identified in the Malibu/Santa Monica Mountains Area Trails System. The parcels are distributed across the project area, but are concentrated primarily on the coastal terrace between Malibu Canyon and Encinal Canyon, and northeast of Malibu Creek State Park (see Figure 4-5). Only one of the permits was located in Ventura County. Fifteen percent of the required OTDs were associated with the Saddlepeak Trail, fifteen percent with the Coastal Slope trail, forty-six percent with 13 other listed trails, and twenty-four percent on trails not listed in the Trails Plan, but with documented use by members of the public.

Of the 172 coastal development permits approved by the Commission with an inland trail OTD special condition requirement, only eight permits (encompassing 23 parcels) have had the OTD recorded and accepted (Table 4-3). Although the Santa Monica Mountains Conservancy accepted the eight permit OTDs in 1997, *none* is yet open for public use. An additional 80 permits (encompassing 107 parcels) have had the OTD recorded but all of these remain *unaccepted* by any entity. The 21-year-long recordations associated with these 80 OTDs will begin to expire in 1999, and once expired, the opportunity to ensure mitigation for development impacts and to obtain public access will disappear. For the remaining 84 permits approved by the Commission with an inland trail OTD special condition requirement, the OTD has not been recorded.[7]

Table 4-3:
Current Status of Commission-Required Inland Trail OTD Easements

STATUS OF OTD	No. of OTDs
Recorded, Accepted, and Opened to Public	0
Recorded and Accepted	8
Recorded	80
Not Recorded	84
TOTAL	**172**

Source: ReCAP Database, 1978-1996; Statewide Access Program Database.

[7] Generally, when the Commission or local government requires an OTD for access mitigation, the condition language requires that the OTD be recorded prior to issuance of the coastal development permit. In some cases, the applicant will choose not to pursue an approved project, and as a result will not satisfy conditions of a permit or obtain the permit; therefore, the OTD required by the Commission is not recorded. For those 84 projects where an OTD was required but was subsequently not recorded, ReCAP was not able as part of this project to document whether the permit expired or was issued without recordation of the OTD. In addition, this large number (84) also reflects multiple permits approved by the Commission for the same project site, as different development plans for a site are often brought before the Commission and approved over time.

Until inland trail OTDs are actually opened, however, the impacts to the public from private development are not fully mitigated by recording an inland trail OTD easement because the trail easement is still not required to be opened to public use. As previously noted, only eight of the 88 recorded inland trail OTDs have been accepted by a managing agency and *none* of the eight is yet open for public use. As discussed previously, barriers to accepting and opening recorded OTDs typically include liability concerns, costs of managing and maintaining the easements, and the geographic distribution and physical characteristics of the individual easements. As a result, while development proceeded on and adjacent to inland trails in the ReCAP project area, the mitigation for these development impacts on public access remains incomplete.

Compounding these limitations of the Commission's primary tool to mitigate development impacts on public trail access, the use of the inland trail OTD easement has nearly vanished. Until the early 1990s, the OTD easement was a routine tool to mitigate development impacts on inland trails. However, given court decisions over the past decade regarding the imposition of conditions on permits to mitigate public access impacts, the Commission now applies such a permit condition to protect public access far less frequently (e.g., CCC, 1997d).

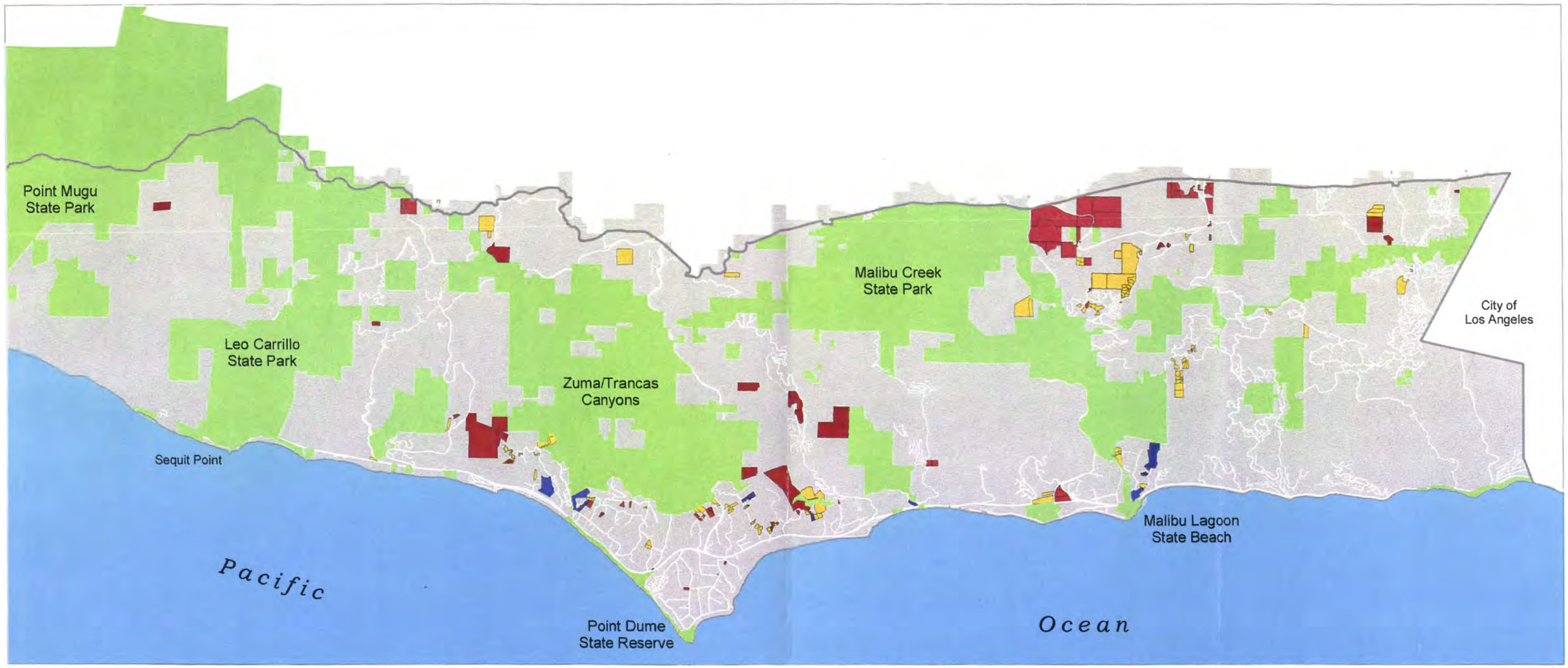
In order for existing inland trail OTD easements to fully mitigate impacts from development already authorized, the Commission must take a more active role in seeing that recorded OTDs are accepted and opened to public use by a responsible public agency or private entity. The Commission should pursue development of a Memorandum of Understanding to designate a principal management agency to directly accept future inland trail dedications. Once a managing entity is identified, the Commission should change its special condition language to require a trail dedication directly to the specified agency, rather than accepting an offer-to-dedicate. Direct easement dedications could more efficiently assist in protecting existing trails and help to ensure that public use of those trails will continue.

The Statewide Access Program has made significant progress in recent efforts to get shoreline public access easements accepted prior to their expiration dates. A similar effort by the Commission should now be directed toward the eight accepted and 80 recorded inland trail OTDs to ensure that mitigation for approved development is obtained for the public before easement offers expire. As part of future efforts, the Statewide Access Program should expand efforts to map the location of all accepted and recorded trail OTD easements, identify high priority recorded trail OTD easements for acceptance, and assist qualified public agencies and private organizations to accept and open for public use inland trail OTD easements. Setting priorities for accepting and opening easements should occur in coordination with the National Park Service, California Department of Parks and Recreation, the County of Los Angeles Department of Parks and Recreation, the City of Malibu, and the Santa Monica Mountains Trails Council.

Figure 4-5
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Offers to Dedicate Inland Public Trail Easements



Parcels with a recorded and accepted Offer to Dedicate (OTD)
Parcels with a recorded but not accepted OTD
Parcels with a required but not yet recorded OTD
Public Parkland
ReCAP Study Area Boundary

N
W E
S

0 1 2 3 4 5 Miles

California Coastal Commission
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.
Sources: CCC Public Access Database. Assessor's Information via TRW Experian.

Given that it may be some time before recorded trail easements are opened to the public, the Commission should ensure that future development on existing developed parcels with recorded trail OTDs does not encroach onto or otherwise interfere with the future ability of the public to use and enjoy the easement. The Commission should modify its permit filing requirements to include the submittal of documentation locating any trail easement area in relation to the proposed development. The Commission should also require LCP planning in the County of Los Angeles and City of Malibu to include similar measures and other policies and standards to prevent encroachment of future development (and to remove non-permitted encroachments) on any area covered by a recorded trail easement or by an offer to dedicate an access easement.

IMPROVING TRAIL ACCESS OPPORTUNITIES

Even with the extensive parkland acquisitions and the inland trail OTDs that have been recorded since 1978, numerous gaps remain in the regional trail network envisioned in the Los Angeles County LUP. Data developed under ReCAP could help illuminate opportunities to close those gaps.

Preliminary Recommendation IV-16	Support the appropriation of public funds for the purchase of parcels and/or easements to close existing gaps in the public trail system in the Santa Monica Mountains.

Preliminary Findings:

Conditioning a coastal development permit to require an inland trail OTD easement was the primary method until the mid-1990s to mitigate development impacts on trail access in the Santa Monica Mountains. However, given the present limitations of using OTDs, new measures are needed to mitigate development impacts on inland trails and ensure the availability of trail access. As development continues on and adjacent to trail corridors in the Santa Monica Mountains, and as recreational use of the region's public parklands and trails increases, adverse site-specific and cumulative impacts on trail access will become more apparent. These impacts cannot be mitigated solely through accepting and opening the existing inventory of recorded OTDs, but will require additional mechanisms to ensure access is provided.

Unless the Commission and local governments identify alternative and timely measures to more adequately and effectively mitigate past and future development impacts on inland trails in the Santa Monica Mountains, the public's right and ability to use trails located on public parklands and historic trails on private lands will remain severely

constricted. Regulating future development and opening existing, scattered trail easements to public use will not by themselves adequately protect the public interest. The ReCAP Geographic Information System (GIS) now identifies the parcels on which inland trail OTD easements are located. While more specific mapping of easement locations on parcels is needed, by sharing the ReCAP data with regional park agencies, trails organizations, and local government, OTD easements that would close gaps in the public trail network could be more easily targeted for acceptance and opening.

In addition, the ReCAP GIS can guide future acquisitions of parcels or trail easements across parcels in private ownership. Acquisition of parcels or easements remains an effective method to close gaps that presently exist in the public trails system in the region. The Commission, in coordination with other public agencies and private organizations supporting public access and recreation in the Santa Monica Mountains, should support the appropriation of public funds to expand public access opportunities in the region. Acquisitions significantly expanded the amount of public parkland in the Santa Monica Mountains National Recreation Area and within the mountain and seashore units of the State Park System. Likewise, public acquisition of trail easements should now be viewed as the most important tool to secure the public trail system long-envisioned for the Santa Monica Mountains.

Chapter 5: Shoreline Armoring

OVERVIEW

Ocean Beaches are one of the most valued recreational resources of the state. The cumulative loss of public resources from encroachment of shoreline armoring[1] on sandy beaches is an important coastal management issue. In addition to covering beach area that provides for recreation, shoreline armoring also can exacerbate erosion problems by fixing the back beach and eliminating the influx of sediment from coastal bluffs, and can cause localized scour in front or at the end of the shoreline protective devices. In addition, by allowing shoreline armoring in areas with existing development, the cycle of rebuilding storm damaged or destroyed development in the same hazardous areas is often perpetuated. ReCAP found that from 1978 through 1996, the Commission authorized shoreline protective devices along an estimated 2.8 miles of shoreline in the project area, covering an estimated 3.5 acres of sandy beach.[2]

> The term ***shoreline armoring*** as used in this project refers to hard protective structures such as vertical seawalls, revetments, riprap, revetments and bulkheads.

The ReCAP project area lies at the junction of a major mountain range and the Pacific Ocean, making development in the region highly vulnerable to a variety of natural hazards, including threats from landslides, fire, flooding, and waves. Generally, the shoreline consists of a series of rocky headlands and narrow crescent shaped beaches, vulnerable to erosion and wave uprush. A large portion of the beachfront property in the project area was subdivided and developed prior to 1976, before the effective date of the Coastal Act, without benefit of mitigation or planning to minimize impacts to coastal resources, and this development faces significant impacts from wave hazards. In spite of this exposure, development along the coastline in the project area continues to occur, placing more property at risk. To reduce the risk to private shorefront development, armoring of the coastline has often occurred. However, this armoring results in impacts to shoreline processes and recreational beaches.

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[1] The Commission in its regulatory actions usually does not consider retaining walls as shoreline protective devices because such walls do not permanently trap sand. However, ReCAP included retaining walls built to protect septic systems in our analysis because, as hard structures, they may contribute to localized scour. A lot by lot field check to distinguish retaining walls from bulkheads underneath houses was not possible as part of this project.

[2] These figures are based on permit actions but not field checked to confirm construction. See Appendix Section IV.

In an analysis of aerial photos from 1978, ReCAP found that most of the densely developed beaches, such as Broad Beach, Carbon Beach, and Amarillo Beach, were already built out and many structures employed some form of engineering or shoreline protective structure underneath or in front of the home. Between 1976 and the present, most of the shoreline development has been incremental development of a small number of vacant parcels or renovations, expansions or reconstruction of older, existing structures. Newer residential structures on the shore have often been built on caissons and are larger in size and often extend further seaward than older development.

POLICY BACKGROUND

Under the Coastal Act, development is required to be sited and designed to minimize risks, assure stability and structural integrity and neither create nor contribute significantly to erosion or require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs (Section 30253). Section 30235 of the Act allows the construction of shoreline protective devices where existing development is threatened from erosion and when designed to eliminate or mitigate impacts on shoreline sand supply. Further, the Coastal Act provides that development damaged or destroyed by natural disasters can be rebuilt in the same area, exempt from coastal permits, provided they are not expanded by more than 10% and conform to existing zoning requirements. Certain emergency actions are also exempt from permit review.

Because the City of Malibu has no certified LCP, the above Coastal Act policies govern development along the shoreline in the Malibu portion of the project area[3]. In the Ventura County portion of the project area, the policies of the certified LCP have governed the review of development since certification in 1983. Ventura County's certified LCP contains standards addressing shoreline development that incorporate standards of Section 30253 and 30235 of the Coastal Act. New residential units require special review. In addition, LCP policies require a building permit for construction or maintenance of shoreline structures. All permits for shoreline structures are referred to the Public Works Agency for an evaluation on littoral drift and beach profiles. Shoreline

[3] Both the policies of the L.A. County LUP developed prior to city incorporation and the City of Malibu General Plan policies give insight into how the local governments have addressed this issue in other planning. The L.A. County policies mirror the Coastal Act policies and regional guidelines. Policies P167 and 153 allow seawalls for new development only if no feasible alternatives exist, only to protect existing structures, coastal dependent uses or new structures which constitute infill and if designed to mitigate impacts on shoreline and sand supply. (CCC, 1987) The City of Malibu's General Plan policies (CON Implementation Measures 31and 32) require structures to be sited "landward of state owned tidelands, and; in addition, for infill lots from a stringline...whichever setback is greater; however, an additional setback may be required where necessary to protect the structure from anticipated beach erosion." Seawalls are prohibited unless it is determined that "there are no other less environmentally damaging alternatives for the protection of onshore development. Revetments and seawalls are permitted only when required to serve coastal dependent uses or to protect existing or new structures which constitute infill development." (City of Malibu, 1995).

structures are required to avoid interference with public rights of access. (County of Ventura, 1994)

To evaluate the cumulative effects of the implementation of these policies, ReCAP analyzed overall permitting activity from 1978 through 1996, focusing more specifically on the 10 years 1986-1996. Some of the development protected by armoring consists of coastal dependent uses, existing structures or public beaches for which armoring is permitted by the Coastal Act But, the Santa Monica Mountains/Malibu ReCAP confirmed previous findings of ReCAP in the Monterey Bay Area: as long as development is approved in areas with high shoreline erosion and wave hazards, it will likely be armored (CCC, 1995). As a result, it is important to assure that any cumulative impacts to public shoreline lands and resources are adequately mitigated. To improve the measures addressing cumulative impacts of armoring, ReCAP is recommending a range of measures for implementation by the Commission through its management program or by local governments through their LCP planning.

SHORELINE CONDITIONS

The project area lies within the Santa Monica littoral cell. The major sediment source for the Ventura and Malibu portion of the Santa Monica cell are the streams draining the Santa Monica Mountains. The sediment from much of the drainage area has been trapped behind dams and catchment basins, never reaching the coast. The U.S. Army Corps of Engineers (USACOE) has estimated that the average annual sediment yield from steams between Pt. Mugu and Topanga Canyon (approximately matching the ReCAP study area) is about 120,000 cubic yards (USACOE, 1994). Figure 5-1 depicts the major sediment sources and sinks and net sediment transport direction for the project area. Another significant sediment source for the region is the incremental addition of eroded material from the coastal bluffs. However, over 60% of the bluffs are blocked from the erosive forces of the wave action by some form of development, including Pacific Coast Highway, vertical seawalls, and revetments (City of Malibu, 1993).

The sediment that reaches the coast is transported along the shore up or down the coast depending on wave conditions. The USACOE report concludes that the net sediment transport direction is in an easterly direction nearly all year at all locations (see Figure 5-1). The amount of sediment transported along the coast varies significantly from year to year, depending on the precipitation, stream flows and wave conditions. Beaches in the study area recede during periods with low sediment yields and recover temporarily after higher rainfall and streamflow (USACOE, 1994). The highly variable width of the beaches in the project area often places the majority of the dense beachfront development in danger from flooding, wave impacts, and structural failure from beach scour. These short-term winter erosional events dictate the level of exposure for development from wave attack.

MEASURES TO AVOID OR MINIMIZE FUTURE ARMORING

ReCAP staff estimates that currently close to half of the shoreline in the study area is affected by shoreline structures. Steps to maximize protection of the remaining unarmored sections of the shore will help protect regional sand supply.

Preliminary Recommendation V-1	The City of Malibu, as part of its LCP planning, should prohibit development that would require armoring for those shoreline areas which do not constitute "infill" and should prohibit new subdivisions, including lot splits, which create new lots within high wave hazard areas. The Ventura County LCP should be amended to incorporate similar restrictions.
Preliminary Recommendation V-2	The Commission should, as a condition of new development for demolition and rebuilding of structures subject to wave hazards, require that new development be sited outside areas subject to wave hazard or built on caissons and setback as far landward as possible. As part of reconstruction, require alternatives for waste treatment, including the redesign and/or relocation of septic systems which may avoid the need for bulkheads or retaining walls. Similar requirements should be incorporated as part of LCPs for the City of Malibu and Ventura County.

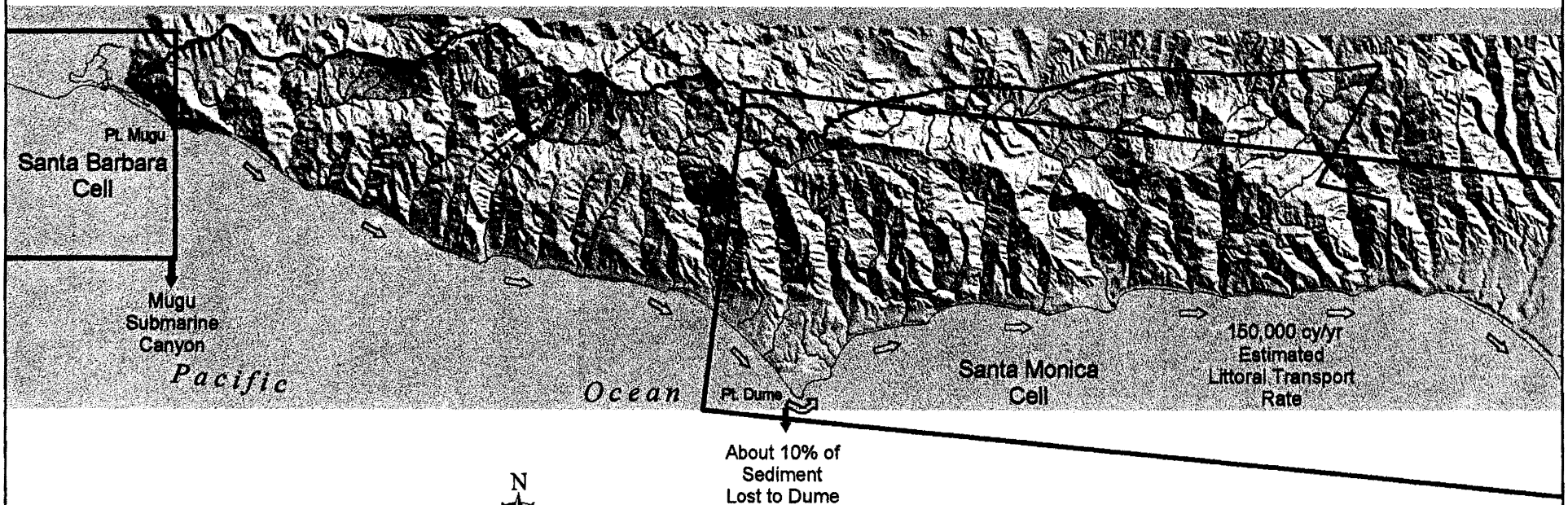
Preliminary Findings:

Goals of the coastal policies previously discussed include minimization of risks to new and existing development and avoidance of new shoreline armoring which impacts coastal resources. The ReCAP staff evaluated 19 years of permit actions which implemented the Coastal Act policies regarding protection of shoreline resources and sand supplies in the project area. Analysis of aerial photographs from 1978 and 1993 and analysis of Commission permit actions, indicate that approximately 11.4 miles, or 35% of the project area shoreline was armored with seawalls, revetments or retaining walls to protect septic systems prior to 1978. Shoreline hazards was identified as a key issue in many coastal permits, and, actions on these permits authorized additional armoring. From 1978 through 1996, 330 applications for development involving shoreline protective devices were filed with the Commission and of those 280 (85%) were approved. Figure 5-2 shows the breakdown of applications by year and Figure 5-3 shows the breakdown of Commission actions on the 330 applications.[4] These 330 applications

[4] This figure does not include 16 reconsideration requests filed.

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Littoral Cells and Sediment Budget



— ReCAP Study Area Boundary

⇨ Net Littoral Transport

⬇ Sediment Loss

N
W E
S

0 4 Miles

Geographic Extent	Estimated Annual Stream Sediment Yield (cubic yards)
Pt. Mugu to Pt. Dume	60,000
Pt. Dume to Eastern Study Boundary	60,050

Map Note: The information presented on this map is preliminary and subject to revision. All location are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

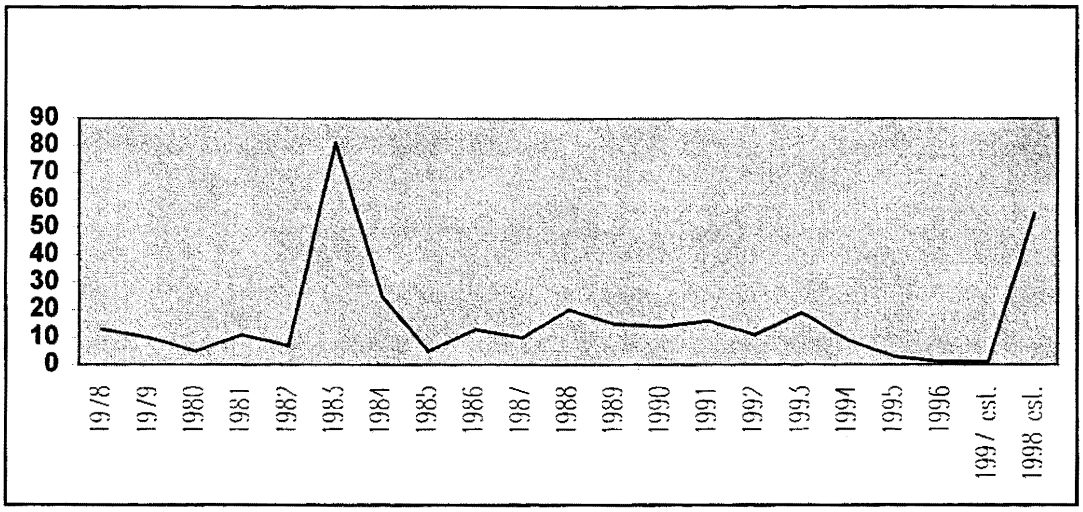
Annual stream sediment contributions and littoral transport rates are highly variable from year to year, dependent upon annual precipitaion and seasonal wave climate.

Source: US Army Corps of Engineers. Reconnaissance Report: Malibu/Los Angeles County Coastline, Los Angeles Co., CA, April 1994.

Figure 5-1
Preliminary Draft

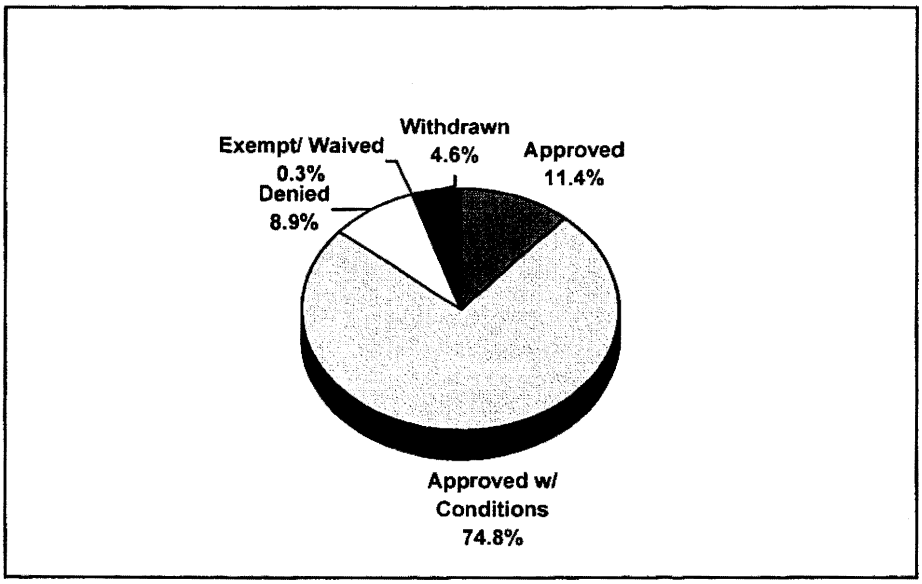
comprised roughly 7.6% of the total applications filed in the project area from 1978-1996; in 1983 alone, a year with significant winter storms, applications for shoreline protective devices comprised about 37.5% of total applications filed in the project area.

Figure 5-2:
Applications for SPDs filed in the Project Area 1978-1996



Source: ReCAP Database

Figure 5-3:
Commission Actions on Applications for SPDs in Project Area, 1978-1996



Source: ReCAP Database

As shown in the Table 5-1, about 74% of the 280 approvals were for development of new seawalls and approximately 19% were for repair/modification or expansions of existing devices. Commission records show that Ventura County has approved only one permit for a shoreline protective device since LCP certification in 1983 in the ReCAP study area.

Table 5-1:
CCC Approved SPD Projects 1978-1996

SPD Project Type	Number	Percent
new structure	208	74%
repair of existing spd	14	5%
replace	28	10%
expand existing spd	10	4%
unknown (data not available)	20	7%
Total	280	100%

Source: ReCAP Seawall database

Under the current Coastal Act policies, the Commission has approved most of the applications for shoreline armoring that have come before it in the last 19 years. While these actions are not as significant as the impacts of the development existing prior to the Coastal Act, the result is still a contribution to the cumulative armoring of the shoreline with resultant impacts to sandy beaches and shoreline resources.

The cumulative effect of these authorizations is that since 1978, an additional 2.8 miles of shoreline has been approved for armoring. This represents about 9% of the project area's shoreline. Based on staff estimates for an average size of a vertical wall and revetment authorized by the Commission, approximately 3.5 acres of beach have been covered by shoreline armoring. This additional armoring represents beach area lost to recreational use and sand lost to the littoral system. When added to the amount of shoreline armored prior to 1978 and the armoring for which no permit has been identified (about 0.6 miles), the result is that a total of about 14.8 miles, or roughly 45%, of the project area shoreline is affected by shoreline structures built or authorized. Unless future armoring is avoided, ReCAP's projections of future buildout of shoreline lots indicate that up to 5 miles of additional shoreline (or an additional 15% of the project area shoreline) could be armored with hard structures. The remaining unarmored area would consist mostly of public parks or unthreatened bluff areas.

ReCAP's review indicates that the past actions authorizing armoring along much of the project area shoreline occurred as a result of infill situations (CCC, 1997g). As illustrated in Figure A-4(a-f), in the Appendix, there are some areas of unarmored shoreline, but many of the project area's vacant parcels consist of infill development.[5]

[5] Infill development as applied in past Commission permit actions referred generally to one or two lots, vacant or made vacant through demolition, between existing developed lots and served with existing infrastructure.

Section 30253 includes provisions to minimize risks from new development and to assure that new development not require construction of protective devices that would substantially alter natural landforms along bluffs or cliffs. Section 30235 allows shoreline armoring when required to protect existing development and when designed to eliminate or mitigate adverse impacts. The determination of whether armoring is required to protect existing development is usually a case by case determination. With a few exceptions, as long as structures are located in areas subject to wave hazard or bluff erosion, under Section 30235, past permit actions in the project area show that there is a likelihood they will eventually be armored. But, for undeveloped areas, armoring can be avoided: (1) where new proposed subdivisions can be denied or designed to site lots outside of the hazard area; or 2) where there is a undeveloped stretch of existing vacant lots where new development could be designed and sited to avoid exposure to erosion and wave hazards altogether.

Additional armoring is even more likely in the project area given the location of Pacific Coast Highway (PCH). The construction of PCH, between 1924 and 1940, provided a major transportation artery into and out of Los Angeles, and a major public access route to the beaches of the Malibu area. But, it also provided new fill on the shorefront side of the highway upon which single family homes could be constructed. This loose, unconsolidated fill provides poor structural support and often requires one or more retaining walls for adequate stability. This fill is also highly erosive when exposed to wave action. As the shoreline has retreated over time, PCH has been rerouted inland in several locations, including Malibu Road and Malibu Colony Drive. PCH continues to be threatened by erosion, wave uprush and flooding wherever it is located adjacent to the ocean, and given its importance to regional access and transportation, it is possible it will be armored throughout most of its length in the project area.

The principal mechanisms for the Commission and local governments in the project area to prevent future armoring is to avoid authorizing subdivisions which create new lots in hazardous areas or to redesign projects to site development fully outside of hazardous areas. Eliminating development potential on lots in hazardous areas through purchase or TDC retirement is another mechanism to prevent the need for shoreline protective devices. As noted in the buildout scenario discussion in Chapter 3 of this report, there are a few shoreline lots which are large enough to potentially be divided.

In areas currently built out, the greatest opportunity to avoid or minimize additional armoring is in cases where major demolition and redevelopment is likely to occur. In these cases, measures could be instituted through permits and LCPs to resite structures landward or to place structures on pilings to allow sand movement under the houses. Increased setbacks could be also be applied, as discussed in the following section.

ReCAP recommends that the City of Malibu LCP and Ventura County incorporate plan designations and zoning standards applicable to demolition and rebuilding applications which assure more landward siting of development from wave hazard areas in future LCP

planning. The LCPs should identify specific beach areas where landward siting could minimize exposure to wave hazards, develop specific requirements for all properties within the area, and apply them through coastal development permits. However, ReCAP recognizes that even with such a comprehensive policy, such planned retreat is not assured, since property owners could choose to renovate structures in place instead of demolishing them, thus avoiding resiting requirements. If such planned retreat is not deemed to be a feasible option, beach nourishment, as discussed later in this section, may be the most appropriate solution.

MEASURES TO MINIMIZE AND MITIGATE IMPACTS FROM PERMITTED ARMORING

While implementation of current policy and the existing patterns of development make avoidance of future armoring difficult, improving the policies and procedures regulating shoreline armoring can reduce impacts on coastal resources.

Preliminary Recommendation V-3	Require in the review of coastal development permits for new development and for demolition and reconstruction of existing development, any permitted shoreline structures be setback as far back as possible from the most landward mean high tideline (MHTL) regardless of the presence of protective devices on adjacent lots. The stringline for shoreline protective devices should be applied in a manner to ensure that it is applied only as a maximum extent of development and only if no further landward setback is possible. Similar requirements should be incorporated into the LCP planning for the City of Malibu.
Preliminary Recommendation V-4	Require the submittal of documentation and maps locating any existing OTD or dedicated easement area in relation to the proposed development of any shoreline protective device or revetment as part of application filing. If such an OTD is required as a condition of approval include documentation and mapping as part of the condition and prior to issuance of the permit. The City of Malibu should include similar measures in their LCP planning to prevent encroachment of shoreline armoring on any area of an OTD or a dedicated public access easement.

Preliminary Findings:

As noted previously, roughly two thirds of the permits authorizing shoreline structures included conditions of approval. In past permit actions, the Commission has generally relied on two mechanisms to reduce impacts: 1) siting structures to avoid, or minimize, encroachment onto sandy beach areas; and 2) conditioning permits authorizing shoreline protective devices to include an easement for public access. The Ventura County LCP also contains components of these key measures.

Application of Setbacks and Stringlines

By locating shoreline protective devices as far landward as possible, the Commission minimizes the extent that a shoreline structure will physically cover recreational beach area and also minimizes the extent of exposure to wave hazards. The setback also reduces the loss of sand to the littoral system; the location of protective devices in many cases will fix the migration of sand to the littoral system. Even if sited as far landward as possible shoreline structures can contribute to further erosion of the adjacent public lands.

Another factor to consider in reviewing proposals to develop shoreline protective devices is whether the development may encroach on public lands. Typically, the Commission reviews the location of the development relative to the general location of the public trust lands as depicted generally on maps prepared by the State Lands Commission. Since those maps are only a general depiction and do not indicate a definitive or current boundary between public and private lands, the Commission also depends in large part upon a determination by the State Lands Commission (SLC) as to whether the development will be sited landward of the boundary between private and public lands.

This determination is complicated by the fact that the boundary between private and public property is ambulatory. In general, public lands are those that lie seaward of the mean high tide line. This line is formed by the intersection of the plane of the high water at mean high tide with the surface of the land. The plane, or elevation, of mean high tide is determined by calculating the average height of all the twice-daily high tides that occur over a 19- year period for a particular location, as record by the National Ocean Survey. This is an unchanging elevation. The line of mean high tide is where this unchanging elevation meets the shore as it exists at

Stringline has been described as follows: in a developed area where new construction is generally infilling and is otherwise consistent with the Coastal Act policies, no part of a proposed new structure, including decks and bulkheads, should be built further onto a beach front than a line drawn between the nearest adjacent corners of the adjacent structures. Enclosed living space in the new unit should not extend farther seaward than a second line drawn between the most seaward portions of the nearest corner of the enclosed living space of the adjacent structure.

any particular time. On a shoreline composed of rock, the intersection will remain constant. Where the shore is comprised of sandy beach, the beach profile may change as a consequence of wave action that causes accretion or erosion. In these situations, the location where the elevation of the mean high tide line intersects the shore is subject to change. The result is that the mean high tide line, and the boundary between private and public ownership, moves in response to changes in the shore's profile. This makes it difficult for the SLC to reach a definitive position in many instances on whether a development would encroach on public lands. At a minimum, therefore, it is even more important that any new shoreline structures approved by the Commission be set back as far landward as possible to minimize the possibility that they will intrude seaward of the mean high tide line at any time in the future.

As noted previously, the Commission has generally applied Coastal Act polices in the project area based on whether the proposed development was an infill situation. As guidance, in 1981 the regional guidelines for the Malibu area generally suggested a 10-ft. setback of new development from the mean high tide line and a prohibition of bulkheads in areas where none existed. Recognizing the existing pattern of development, Commission permit actions generally applied a stringline to development sites which constituted infill vacant lots, allowing retaining walls and other armoring in connection with some new development. However, continuation of the application of a stringline for shoreline structures does not assure that the possibility for encroachment is minimized. If armoring is permitted in an infill situation, the potential for impacts on public lands can be minimized only if it is located as far landward as feasibly possible (CCC, 1997g). In the past, many shoreline protective devices have been required to protect beach-level septic systems. As the Commission has found in recent permit actions, improvements in the design and technology of septic systems can in some cases allow new walls to be set back further landward or eliminated altogether. Therefore, the stringline should not be applied except as a maximum encroachment line. Given the difficulty in making definitive boundary determination for most new development in the area, refining the use of the stringline and setbacks will better protect public resources and reduce the possibility for encroachment onto public lands, regardless of the presence of other adjacent shoreline protective devices. Over time, if landward setbacks are increased, more sand will be available to the littoral system.

Currently, LCP and LUP policies address primarily development of new shoreline structures. However, an increasing number of shoreline development projects will be for the repair, maintenance, or the demolition and reconstruction of an existing shoreline protective device or single family residence. In the last 10 years, about 19% of approvals for a shoreline protective device were not for new structures but some form of repair or reconstruction of an existing shoreline protective device; this number will only increase in the future, given the extent of existing armoring. Increased setbacks can be applied when protective devices are being replaced or substantially reconstructed. However, where existing structures are only being maintained or repaired, such increased setbacks may not be feasible. The stringline should continue to be applied, however, to such repair

and maintenance activities to assure that as older structures are repaired, further seaward encroachment is prohibited.

Access Easements

In addition to resiting shoreline structures landward, ReCAP's analysis of coastal development permits shows that the Commission's response in most cases to the placement of armoring has been to mitigate the impacts of shoreline protective devices by requiring dedication of an access easement or a deed restriction. Of the 280 approvals of shoreline protective devices in the project area, 65 % (181) had requirements for access mitigation, either lateral or vertical. These actions are part of the total of 475 lateral access easements recorded in the Malibu shoreline as noted in Table 4-2 of the report (see Chapter 4). As noted in the Access section of this report, close to 70% of these lateral access easements have been accepted. As the remainder of these easements are accepted by an agency, available for public use and protected against further encroachment, mitigation for the impacts of shoreline structures on public lands will be more fully achieved. Because of the significant actions of the Commission's Access Program and the State Lands Commission in accepting many of these easements in Malibu, the cumulative access impacts of development on the sandy beach is being mitigated. Efforts should focus on the remaining OTDs to assure that mitigation is fully realized and not lost.

The problem of the potential loss of access mitigation through the expiration of OTDs is an issue of statewide concern and is the continuing priority of the statewide Access Program. Recent legislation helped address some of the obstacles in getting OTDs accepted and opened by providing a source of funding for operation of accessways and by addressing liability concerns. Another challenge facing the Commission and local governments through their LCP planning is to assure that these areas of dedicated easements and deed restricted areas remain free of encroachments. According to reports of the staff of the statewide Access program, instances have been found where shoreline protective devices have encroached into easement areas, especially as a result of emergency actions. (Locklin, pers. communication). Recommendation IV-9, outlined in the Access section, to document the location of any access easement area will help address the mitigation of the impacts of shoreline armoring on public access.

EMERGENCY ARMORING OF THE SHORELINE

Shoreline protective devices can be engineered and designed to be the minimum necessary to address hazards, to be visually unobtrusive as possible and to be located as far landward as possible to minimize access impacts. Yet, if shoreline protective devices are placed during emergency conditions, the Commission often lacks the opportunity to consider alternative design and siting criteria.

Preliminary Recommendation V-5	Pursue modification of Section 30610 of the Coastal Act to eliminate the exemption for rebuilding and to require a full permit application if the rebuilding of property damaged or destroyed by ocean waves or erosion occurs in the same location and footprint.
Preliminary Recommendation V-6	Pursue modifications of Section 30600 (e) of the Coastal Act to require a follow up coastal development permit for emergency actions undertaken which result in placement of new or expanded shoreline armoring to ensure adequate design and mitigation of impacts to shoreline access and resources.
Preliminary Recommendation V-7	The County of Ventura LCP should be amended to incorporate procedures for emergency permitting and for reconstruction of SPDs, including modifications such as outlined in Recommendations V-2 and V-3.
Preliminary Recommendation V-8	Establish procedures for Commission and local governments for coordination with property owner and for field inspections before and after storm seasons. Procedures should: provide advance information on location of easement areas to assure emergency structures are not occupying public easements and provide for inspections to identify shoreline protective structures built without permits and assure emergency structures are removed or regular permit follow-up is completed within the 60 day period.

Preliminary Findings:

Section 30624 of the Coastal Act allows an emergency permit to be issued when immediate action is required to prevent or mitigate loss or damage to life, health, property or essential public services. Certainly, rapid response is of particular importance in an emergency situation. However, because the regular permitting process is bypassed, an emergency structure can be constructed with minimal engineering review and often no review for alternatives or impacts on coastal resources. Under current Coastal Act provisions, applicants for emergency authorizations are notified and agree with the requirement that the emergency structure be removed or that a regular permit application be submitted within 60 days of the issuance of the emergency permit to retain the structure. The Ventura County LCP does not contain provisions for emergency permitting for SPDs.

Similar to the findings in the Monterey ReCAP, significant cumulative impacts to shoreline beach resources have occurred as a result of the application of the policies and procedures for emergency permitting. There are three aspects of the problems of emergency permitting of SPDs: (1) applicants often fail to submit follow-up permits; (2)

once constructed, few if any emergency structures are removed; and (3) the emergency permit process leads to incremental, haphazard armoring of the coast without mitigation for the impacts to sand supply. For all practical purposes, if armoring is installed in emergencies, it remains in place, often with sub-standard engineering review and without mitigation for impacts to coastal resources.

In Malibu, the emergency permitting problem is especially severe because of the dense development on narrow beaches that often are stripped of all sand during harsh winter storm conditions. The project area has been subject to significant damages from large storms in 1978, 1982-83, 1988, and 1998. About one third of all applications for shoreline structures between 1978 and 1996 were approved in 1983, a major storm event year. It is very likely that many of these were permits for emergency placement of shoreline protection[6] In the project area, in response to the most recent El Niño storms of 1997-8, a total of 54 emergency permits were issued, including 27 for riprap and 15 for vertical seawalls. As discussed further below, many other emergency placements of armoring occurred as exempt actions under 1996 Coastal Act amendments. Assuring that the emergency armoring is removed or a follow up permit is obtained, which addresses alternatives and mitigation of impacts, remains a significant problem. Of these 54 emergency authorizations approved in 1997-98, as of the date of this report, none have filed regular follow-up permits. The enforcement of follow up permit requirements continues to be a top priority of the Commission's Enforcement program. The Enforcement Program staff is working with the staff of the Access Program and the Technical Services Division to respond to emergency permitting cases

The low number of follow-up permits was also a problem identified in the Monterey ReCAP, and, in response, ReCAP staff developed and implemented a statewide permit tracking system. Installed in all district offices in 1995, the permit tracking system established a reliable procedure for recording emergency permits issued, tracking whether the emergency structure has been removed or whether permits have been filed within the 60-day period.

Given the current Coastal Act language, the emergency authorization of armoring can be expected to continue. The Commission's principal recourse to the lack of follow up permit actions is to initiate enforcement investigations. Between 1978-1996, about 43 of the 330 applications for shoreline armoring (13%) were noted as after-the-fact permits (ATFs) to resolve enforcement actions. Review of these ATF actions also show that the armoring placed in an emergency usually remains, although in most cases mitigation is required.

[6] Commission staff is unable to provide a complete analysis of the number of emergency permits granted in the past 20 years because of the manner in which permit numbers were previously assigned, making tracking difficult. The current permit tracking system corrected the problem so that future assessments will be more complete.

El Niño conditions are expected to occur every 2-7 years (Cayan, 1997); with the erosive nature of most of the project area's shoreline, the demand for emergency permits is likely to increase. As more of the shoreline is armored, the demand will increase for maintaining or expanding existing armoring. While developing guidance for emergency permitting to reinforce the temporary nature of the development is possible, in most cases even placement of riprap and rock intended to be temporary is rarely removed.

Permit Exemptions

In addition to impacts from armoring occurring as a result of the emergency permitting process, impacts are occurring as well from the implementation of permit exemptions. Prior to 1983, if a structure was damaged or destroyed by storms or other hazards, the Commission did not always allow the rebuilding of structures in place. The Commission often reviewed the follow up project for whether resiting with a further setback was feasible and whether mitigation in the form of a public access easement dedication was needed to mitigate the impacts of the rebuilding. However, it was the application of this policy in Malibu following the large winter storms of 1978 and 1982-83 that resulted in the amendment of the Coastal Act Section 30610(g) to exempt from any permit requirements, and thus from any access mitigation, certain rebuilding following natural disasters.

Coastal Act exemption 30610(g) to rebuild existing structures in place and in kind contributes to perpetuating impacts of encroachment on sandy beach and public lands. With this policy, in many cases the Commission or local government is precluded from a permit review which may consider alternatives such as resiting a structure further landward to avoid impacts on public lands and requiring the imposition of conditions to mitigate hazards and impacts to access. As a result, many of the shoreline structures built prior to the Coastal Act and which may have significant impacts on public lands, if destroyed or damaged in a storm, can continue to be rebuilt exempt from any coastal permit review if they meet certain criteria.

When structures are destroyed by wave impacts, mitigating future hazards and impacts to access may only be minimized by relocating structures further back from the mean high tide line. However, the Coastal Act creates an incentive to rebuild houses and armoring in the same location by waiving any review for impacts to coastal resources if certain criteria are met. Siting structures further back or increasing the size of the structure, on the other hand, would be subject to permit review. The Monterey ReCAP also identified this problem. ReCAP staff is recommending that the Commission pursue modifications of Section 30610 of the Coastal Act to eliminate the exemption and to require full permit review if the rebuilding of property damaged or destroyed by ocean waves or erosion occurs in the same location and footprint. In coordination with local government sand the Federal Emergency Management Agency other incentives, perhaps financial, for property owners to relocate structures damaged by wave hazards and to reduce the continuing use of shoreline protective devices could be investigated.

Amendments to the Coastal Act in 1996 (AB 2963 Firestone) also resulted in impacts from shoreline armoring. Significant shoreline armoring has occurred to protect PCH. Section 30600 (e) of the Coastal Act allows continued armoring of the shoreline under emergency conditions by exempting from permit requirements, including even emergency authorizations, activities to maintain, repair or restore and existing highway except for a designated state scenic highway. Since PCH in this ReCAP project area is not a designated scenic highway, as a result, no mitigation or alternatives consideration is factored into the large amount of emergency armoring placed to protect PCH.

While it is important to streamline actions during an emergency, these recent changes to the Coastal Act are implemented at a cost to public shoreline resources that are not mitigated. Given the long-term impact of shoreline armoring, ReCAP staff believes that the current emergency permit procedures provide sufficient streamlining for such projects and recommends that this section of the Coastal Act be amended to require follow up permits for shoreline armoring so that development needed during an emergency can later be removed or mitigated.

BEACH NOURISHMENT OPPORTUNITIES

As much of the ReCAP project area is already developed and armored, beach nourishment may provide the best long-term solution to protecting beaches.

Preliminary Recommendation V-9	LCP Planning for the City of Malibu and Los Angeles County should include policies to establish periodic nourishment of key beaches vulnerable to wave damage.

Preliminary Findings:

Southeast of the project area, Southern Santa Monica Bay has received over 30 million cubic yards of sand since 1939, mostly as a result of major harbor and construction projects completed during World War II. Beach widths in the nourished areas were increased by much as 150 to 500 feet (Leidersdorf, Hollar and Woodell, 1994). In contrast, the Malibu coastline has not received much beach nourishment. Some of the sand placed along southern Santa Monica Bay may have been transported north and west to the Malibu area, but given the predominant longshore transport direction, it likely has had little effect on Ventura and Malibu beaches. There has been limited beach nourishment at Zuma County Beach and Las Tunas State Beach.

Beach nourishment is most effective if it is undertaken as a large-scale effort for an entire beach with definable endpoints. Any sand added to a beach will be distributed alongshore as the wave energy works to return the beach to its natural, unnourished width; therefore, any nourishment project should not be considered a one time, quick fix for a beach, but should be a longer term program that incorporates monitoring and maintenance. Most likely sand will need to be periodically added to the beach to maintain the desired width (CCC, 1998c). The National Research Council has shown that a carefully planned, designed and maintained beach nourishment program can provide protection for properties fronted by the nourished beach (NRC, 1995).

Authorities and funding need to be addressed in implementing a beach nourishment program. A number of mechanisms can be used to generate funds for a beach nourishment program, including an in-lieu fee program, assessment districts and pursuit of federal or state funds. Because most effective beach nourishment projects involve a long stretch of coast, they are usually undertaken by a group of property owners or by a local government

According to the Commission's Ventura District office staff, Los Angeles County has initiated a regional task force to inventory the condition of beaches, identify funding sources to accomplish beach restoration, and formulate a long-term maintenance plan. The City of Malibu has already had the benefit of a detailed study by the USACOE, which analyzed the Malibu coastline, identifying the areas prone to damage from erosion and wave hazards and proposing plans to minimize the economic impacts of exposure to shoreline hazards. The USACOE report concluded that beach nourishment would be effective from a cost benefit perspective along four stretches of Malibu's coast which include the following beaches: Escondido, Puerco, Amarillo, Carbon, La Costa, Las Flores, Big Rock, Las Tunas, and Topanga (USACOE, 1994). The City of Malibu LCP should incorporate policies into its LCP to help implement nourishment at these beaches. And, the task force should be assisted in seeking funds to initiate a beach nourishment program either through mechanisms such as assessment districts or a cost sharing arrangement between beachfront homeowners and local, state or federal governments. The Task Force should also pursue state and federal funds which may be appropriate for a regional nourishment program. Because of their role in placing armoring to protect PCH, Caltrans can play an important role in this Task Force as discussed below.

MITIGATING THE IMPACTS OF ARMORING PACIFIC COAST HIGHWAY

Maintaining and protecting the road network in the project area is an important objective, but often this results in effects to regional sand and shoreline resources.

Preliminary Recommendation V-10	The state Department of Transportation (Caltrans) should assist the Task Force in investigating measures to fund regional beach nourishment.
Preliminary Recommendation V-11	The City of Malibu and Los Angeles County should include policies in their LCP planning to require that sediment removed from catchment basins be tested for suitability, and, if appropriate, used for disposal in the littoral system. The LCP for Malibu should designate appropriate beaches or offshore feeder sites in the littoral system for placement of suitable materials from the catchment basins, consistent with Coastal Act Sections 30233 (b) and (d). The Ventura County LCP should be amended to include similar policies.

Preliminary Findings:

The Pacific Coast Highway winds along the majority of the Ventura and Malibu coastline. Skirting inland on the Malibu terrace and in a few locations where rerouting was necessary due to landslide and erosion hazards, it provides spectacular ocean views and access to public beaches. However, the maintenance of this important piece of public infrastructure has not been without cost to coastal resources. Nearly 5 miles (or about 15%) of the project area's shoreline has been armored with massive rock revetments to protect PCH. Because much of this armoring is rock riprap or revetment, ReCAP estimates that this 5 miles represents 31% of the total armoring in the project area and about two thirds of the beach area affected by existing armoring.

Over four miles of this armoring occurred prior to the establishment of the Coastal Act. It appears that only a few permits have been issued to Caltrans for the protection of PCH in the project area. The majority of PCH armoring has been exempt from permit requirements or has been constructed without permits; therefore, there has been little consideration of alternative protection strategies or mitigation. ReCAP staff identified one case of mitigation for a Caltrans project that involved the removal of slide material from PCH, shifting the highway seaward and construction of a rock revetment. As conditioned, the permit required as mitigation options, either the construction of a series of groins, a beach nourishment program, or construction of a beach parking lot. The loss of sand resources was ultimately mitigated through the construction of beach parking. (CCC, 1982b)

Evidence from this past winter shows that Caltrans undertook about 200 significant emergency storm repair projects statewide. While the protection of PCH in an emergency

is an important objective, impacts to shoreline resources also need to be addressed. Frequently, this armoring in not temporary and usually not removed. Given the location of the road, erosion will undoubtedly threaten PCH again in the future. ReCAP estimates an additional 3 miles of PCH could be armored and up to 8 additional acres of beach impacted. An issue raised by this projected armoring is whether there will be consideration of alternatives or mitigation for impacts to sand supply and public access as a result of these projects. Under current law, Caltrans may armor to protect PCH with no permit required and no requirement that the emergency armoring be temporary and removed after the emergency.

The protection of PCH is certainly a high priority due to its critical role in regional transportation and in providing public access. However, as long as such protection is exempt from review, the Commission has little assurance that different alternatives to protect PCH will be considered or encroachment minimized. Caltrans has been identified by the County as a suggested participant in the County Task Force on beach nourishment. Given the extent of coastline armored and beach lost to recreational use directly from the protection of PCH, Caltrans participation is important and ReCAP recommends that Caltrans assist the Task Force in investigating any available funding mechanisms for ongoing beach nourishment.

As noted previously, the streams in the project are a source of sediment to the littoral cell. Catchment basins in the project area inland of PCH, constructed by L.A. County and Caltrans, trap a significant amount of sediment from these streams. If determined to be suitable material, this sediment could be placed in the littoral system. Since the beaches are located within the City of Malibu but the County and Caltrans are responsible for maintaining these catchment basins, the L.A. County Regional Task Force on beach Nourishment may be the appropriate forum to address this issue. However, the LCP planning for the project area should develop policies to assure that as part of the maintenance of these catchment basins, the sediment is tested for suitability and if found suitable, placed in the littoral system.

Chapter 6: CONCLUSION

The ReCAP staff's preliminary findings demonstrate that the Coastal Commission has achieved much success in implementing Coastal Act policies, protecting coastal resources, and managing the cumulative impacts of development in the Santa Monica Mountains/Malibu area. A challenge facing the Commission is to continue to improve its coastal management efforts, in partnership with local government to respond to new information presented in this report, especially in light of the limited staff and resources currently available.

IMPLEMENTATION OF RECOMMENDATIONS

An objective of the federal Section 309 Enhancement Grant Program is to achieve improvements in state coastal management programs. Implementing key ReCAP recommendations will help achieve such improvements in the Commission's coastal management program.

As noted previously, this report contains numerous recommendations which require different methods of implementation. Some of the recommendations do not require Commission adoption, but can be implemented through changes to ongoing Commission staff procedures, while others will require further Commission consideration and adoption prior to any implementation. In addition, some recommendations will require additional staff or financial resources to be implemented. The ReCAP staff has made these recommendations with the understanding that their effectuation is dependent upon the availability of additional resources.

The ReCAP data and analysis can also provide assistance to the County and City in completing their LCPs, and some of the recommendations suggest policy changes for their consideration. Some recommendations applicable to the County of Ventura's certified LCP could be incorporated into a revised LCP update or LCP Amendments.

As part of the Commission's the FY 98/99 federal Section 309 Enhancement Grant work program staff is required to revise the ReCAP report in response to Commission and public comments and to develop an Implementation Strategy for carrying out *priority* recommendations. Priorities for implementation will be identified based on Commission comments and direction, public review and available resources.

NEXT STEPS

Staff recommends that the ReCAP report be available for public review and comment through **December 4, 1998.** In addition, if the Commission thinks there are certain recommendations they wish to consider as a priority for implementation, staff requests that these be identified for incorporation in the Implementation Strategy.

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ReCAP Pilot Project
Appendix
Santa Monica Mountains/Malibu Area

California Coastal Commission
Regional Cumulative Assessment Project
October, 1998

REGIONAL CUMULATIVE ASSESSMENT PROJECT: SANTA MONICA MOUNTAINS/MALIBU AREA
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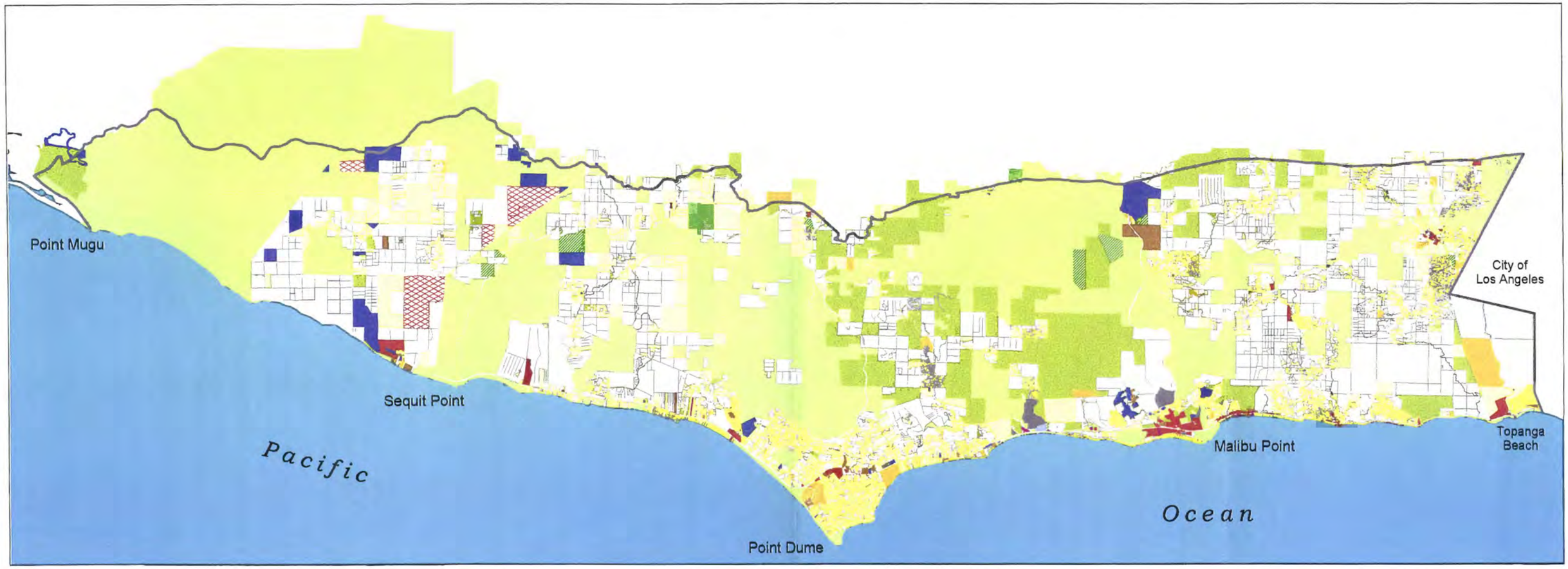
Addendum to Figure A-1
The Source noted on this Figure is incorrect. The correct reference should be:
Source: TRW Experian Database, December, 1997

Figure A-1
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Existing Land Use



- Residential
- Residential 8-10 du/ac
- Residential 10-20 du/ac
- Residential Planned Unit Development
- Commercial
- Recreation-Serving Commercial
- Industrial
- Mixed Use
- Vacant Land
- RV Parks
- Institutions & Public Facilities
- Golf Course
- Private Recreation Land
- Agriculture/Greenhouse
- Parks
- ReCAP Study Area Boundary

N
W E
S

0 1 2 3 4 5 Miles

California Coastal Commission
ReCAP & Technical Services Division

NOTE: For purposes of this display, land use categories were generalized across jurisdictions.

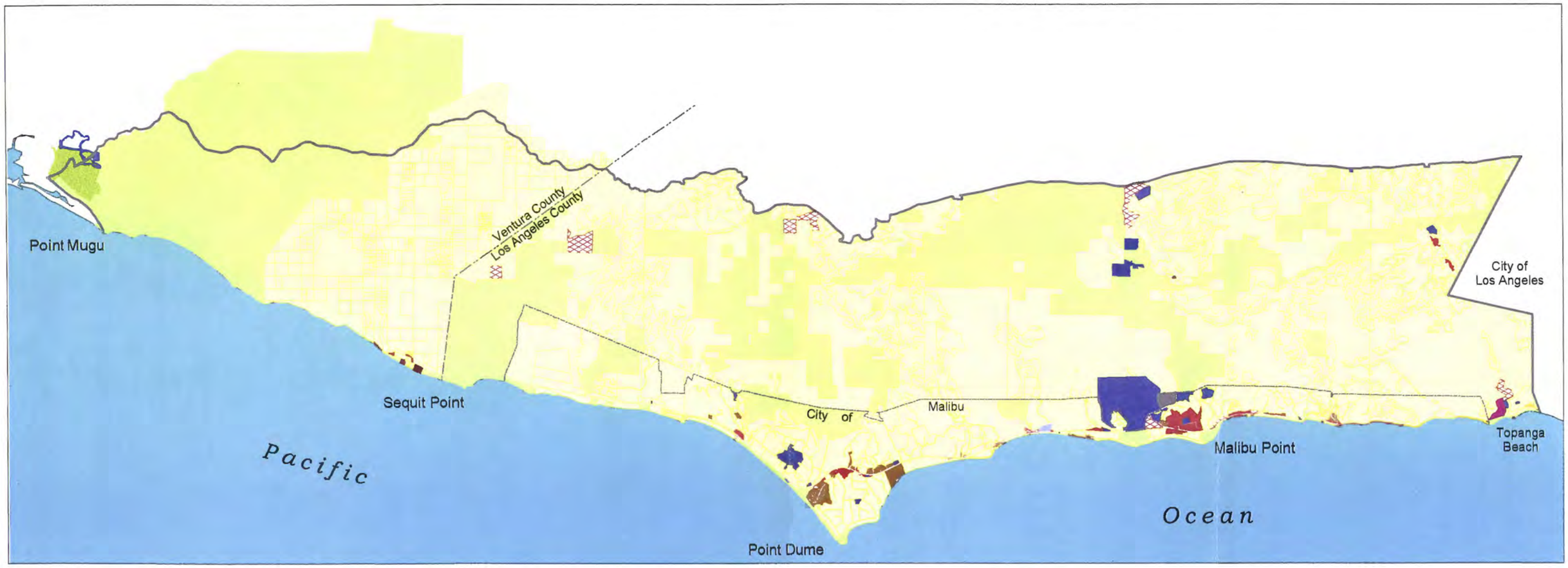
Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: L.A. County LUP, adopted 1986. Malibu Zoning, Ventura County LCP, adopted 1983.

Figure A-2
Preliminary Draft

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Land Use Designations from Local Government Planning Documents (1983-1991)



- Residential
- Residential 8-10 du/ac
- Residential 10-20 du/ac
- Residential Planned Unit Development
- Commercial
- Recreation-Serving Commercial
- Industrial
- Mixed Use
- Vacant Land
- RV Parks
- Institutions & Public Facilities
- Golf Course
- Private Recreation Land
- Agriculture/Greenhouse
- Parks
- ReCAP Study Area Boundary

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California Coastal Commission
ReCAP & Technical Services Division

NOTE: For purposes of this display, land use categories were generalized across jurisdictions.

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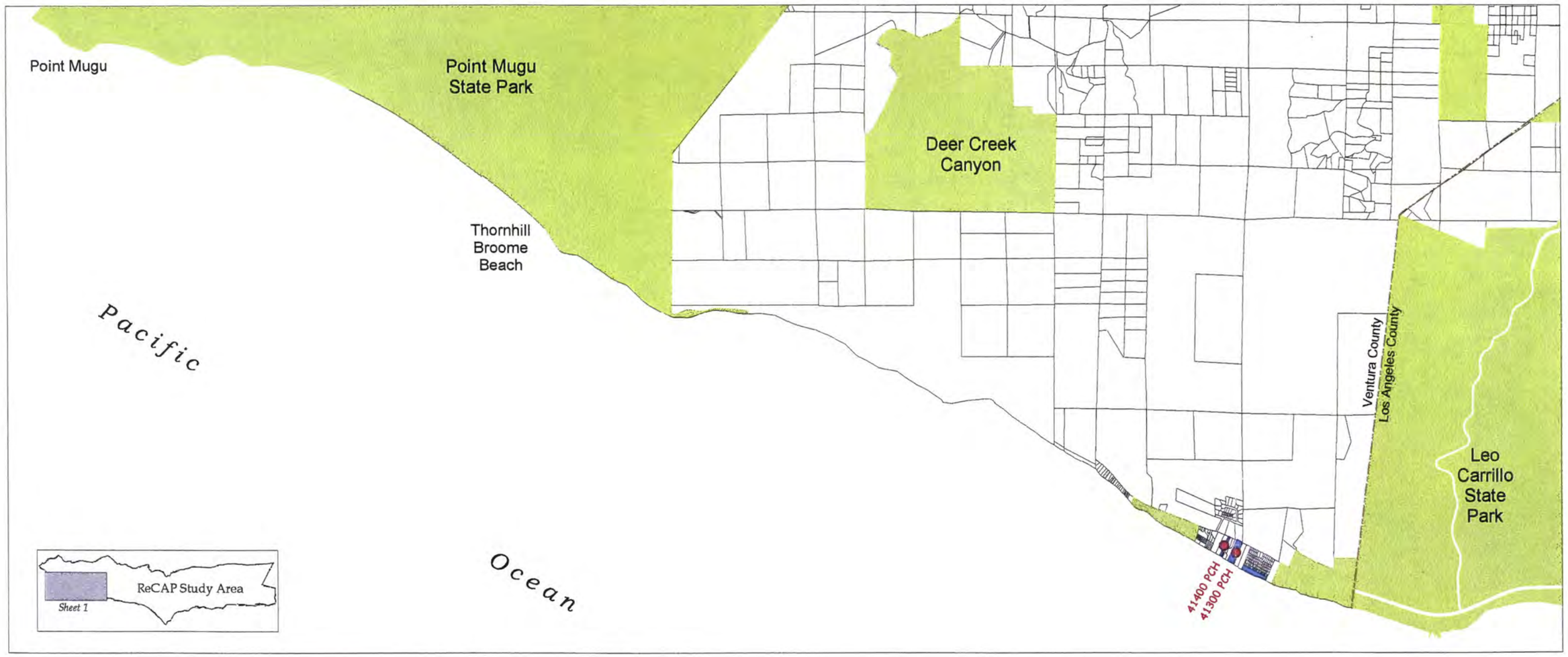
Sources: L.A. County LUP, adopted 1986. Malibu Zoning, 1991. Ventura County LCP, adopted 1983.

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Figure A-3a
Preliminary Draft
Sheet 1 of 6

Public Access to and along the Shore
Ventura County



- Potential Vertical Accessways
- Existing Vertical Accessways
- Potential Lateral Accessways
- Existing Lateral Accessways
- Public Lands
- Private Parcels

N W E S

0 1 2 Miles

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

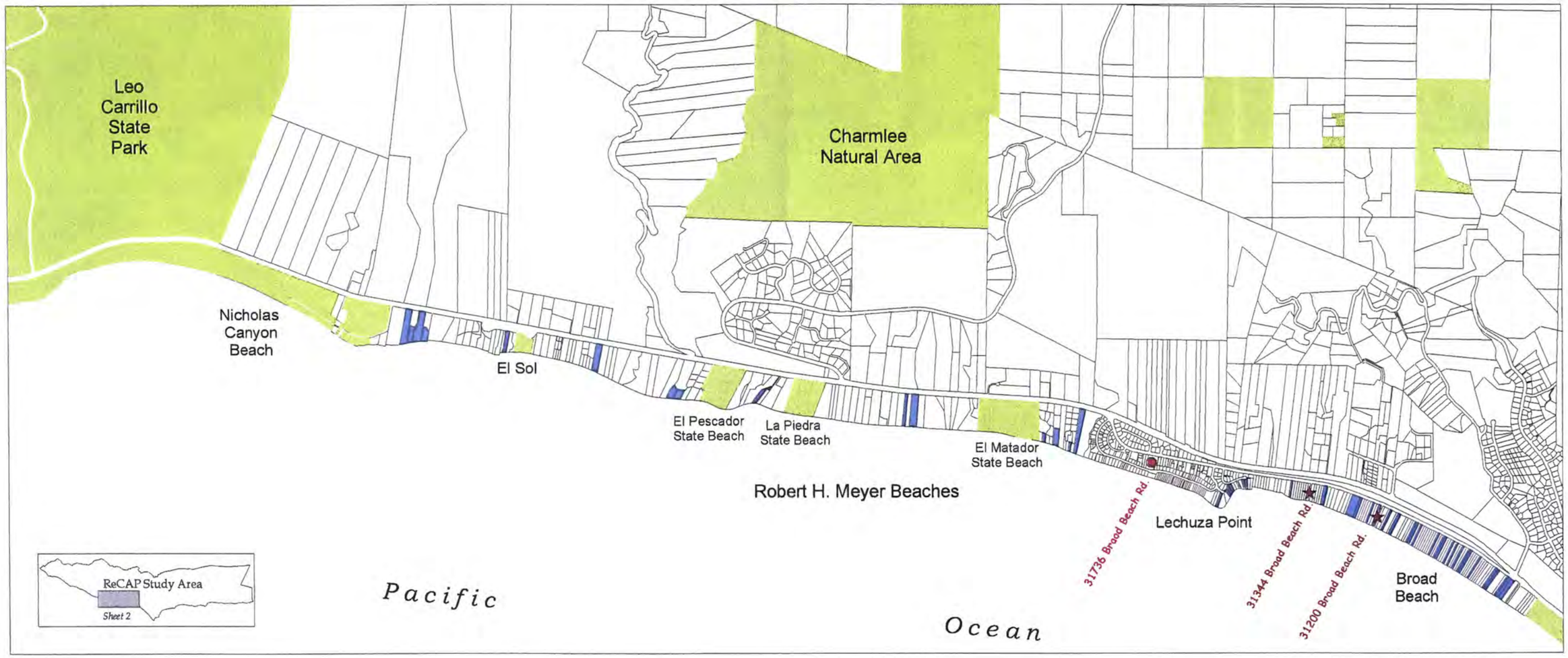
Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

California Coastal Commission
ReCAP & Technical Services Division

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Figure A-3b
Preliminary Draft
Sheet 2 of 6

Public Access to and along the Shore
Los Angeles County



- Potential Vertical Accessways
- Existing Vertical Accessways
- Potential Lateral Accessways
- Existing Lateral Accessways
- Public Lands
- Private Parcels

N
W E
S

0 1 Mile

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

California Coastal Commission
ReCAP & Technical Services Division

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Figure A-3c
Preliminary Draft
Sheet 3 of 6

Public Access to and along the Shore
Los Angeles County

- Potential Vertical Accessways
- Existing Vertical Accessways
- Viewpoint
- Potential Lateral Accessways
- Existing Lateral Accessways
- Public Lands
- Private Parcels

N
W E
S

0 1 Mile

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

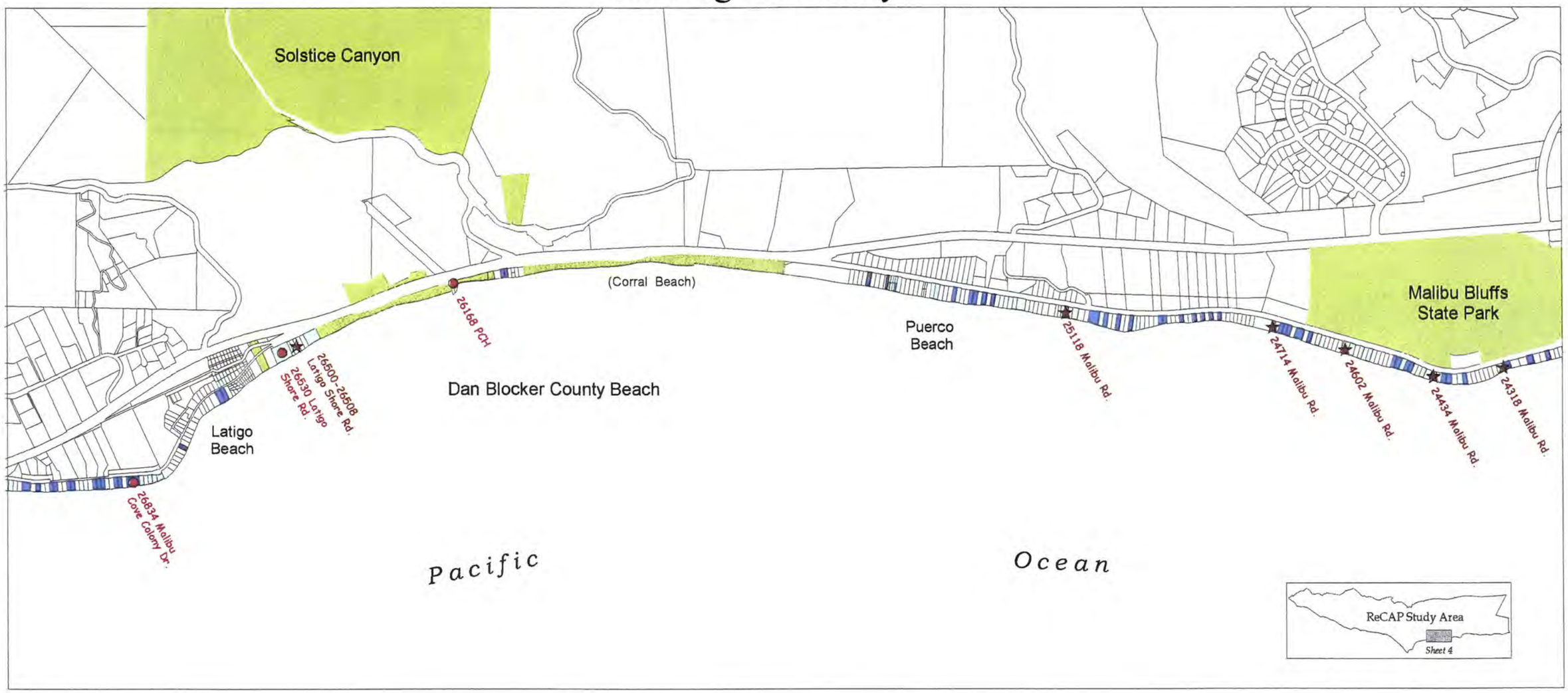
Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

California Coastal Commission
ReCAP & Technical Services Division

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Figure A-3d
Preliminary Draft
Sheet 4 of 6

Public Access to and along the Shore
Los Angeles County



- Potential Vertical Accessways
- Existing Vertical Accessways
- Potential Lateral Accessways
- Existing Lateral Accessways
- Public Lands
- Private Parcels

N
W E
S

0 2000 4000 Feet

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

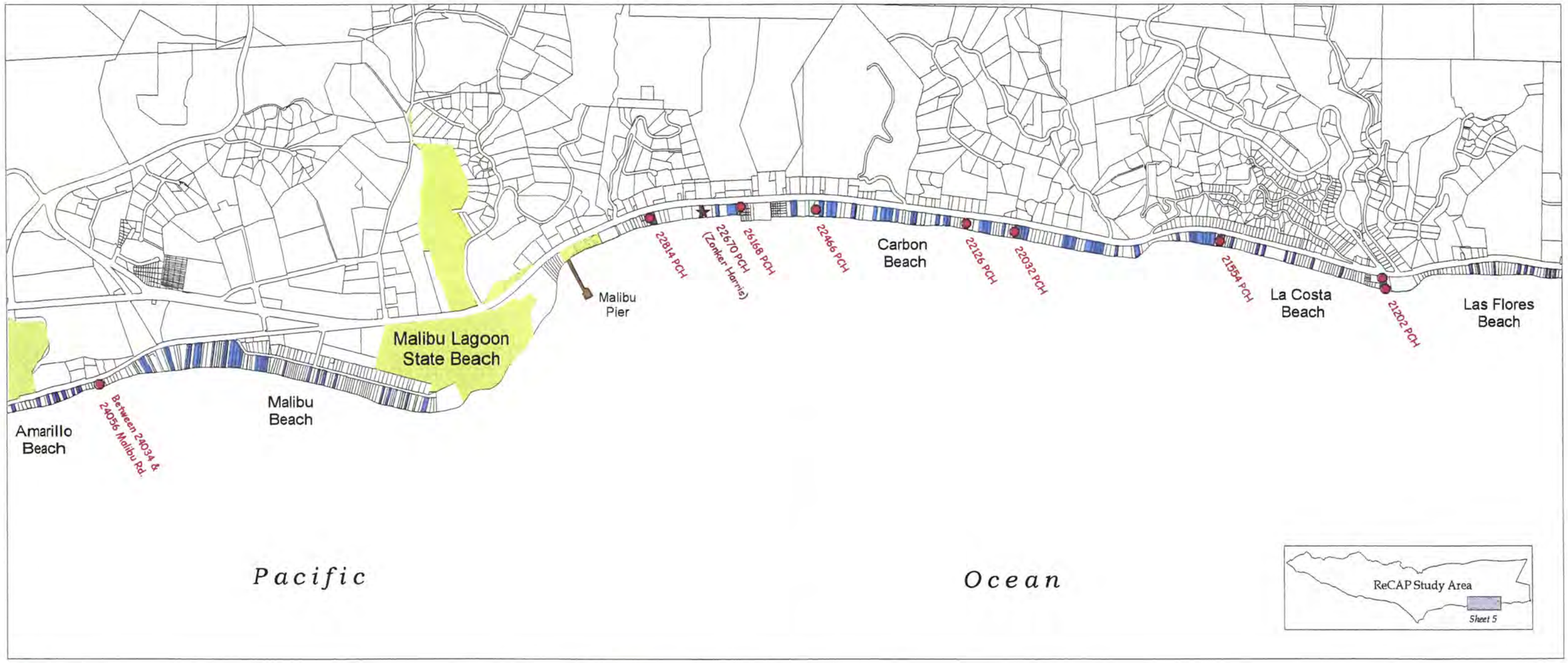
Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

California Coastal Commission
ReCAP & Technical Services Division

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Figure A-3e
Preliminary Draft
Sheet 5 of 6

Public Access to and along the Shore
Los Angeles County



● Potential Vertical Accessways
★ Existing Vertical Accessways
Potential Lateral Accessways
Existing Lateral Accessways
Public Lands
Private Parcels

N
W E
S

0 1 Mile

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

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1998

Figure A-3e
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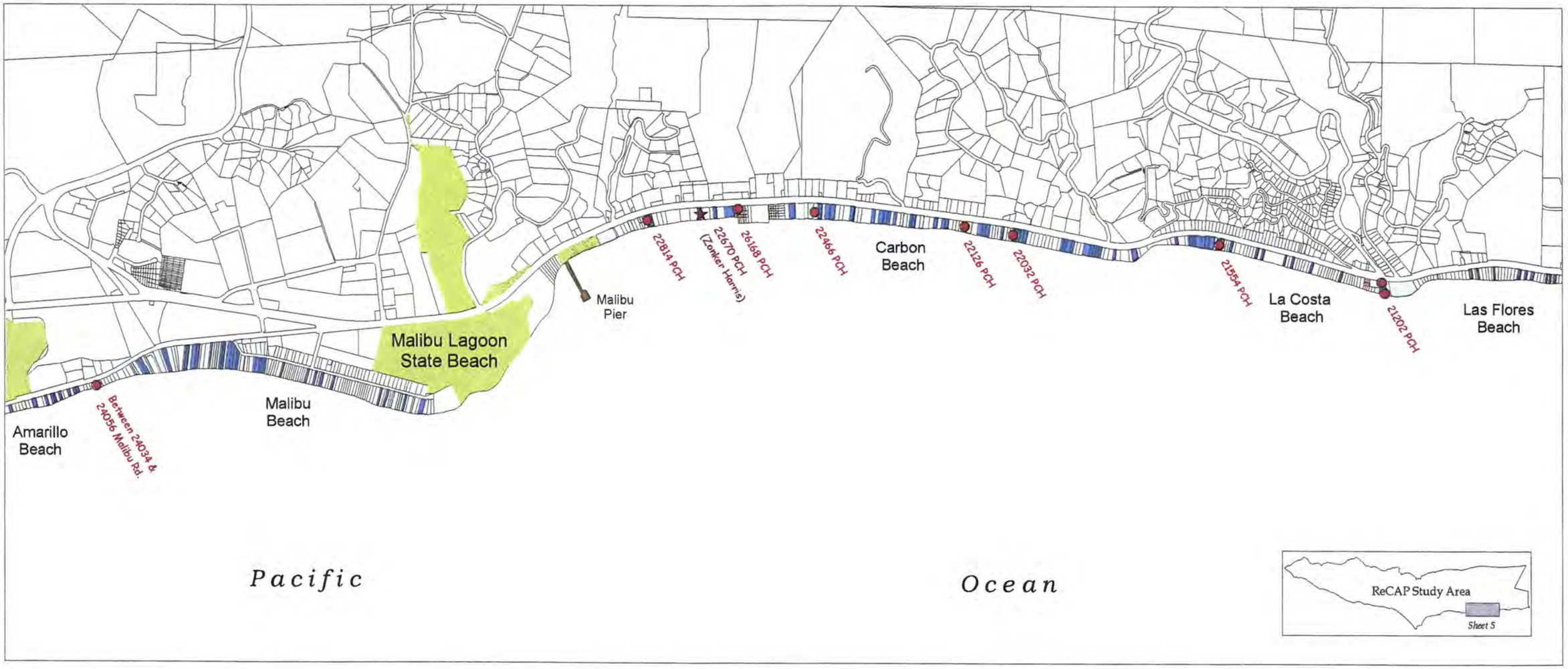
Sheet 5 of 6

Public Access to and along the Shore
Los Angeles County



- Potential Vertical Accessways
- Existing Vertical Accessways
- Potential Lateral Accessways
- Existing Lateral Accessways
- Public Lands
- Private Parcels

N W E S

0 1 Mile

California Coastal Commission
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

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1998

Figure A-3f
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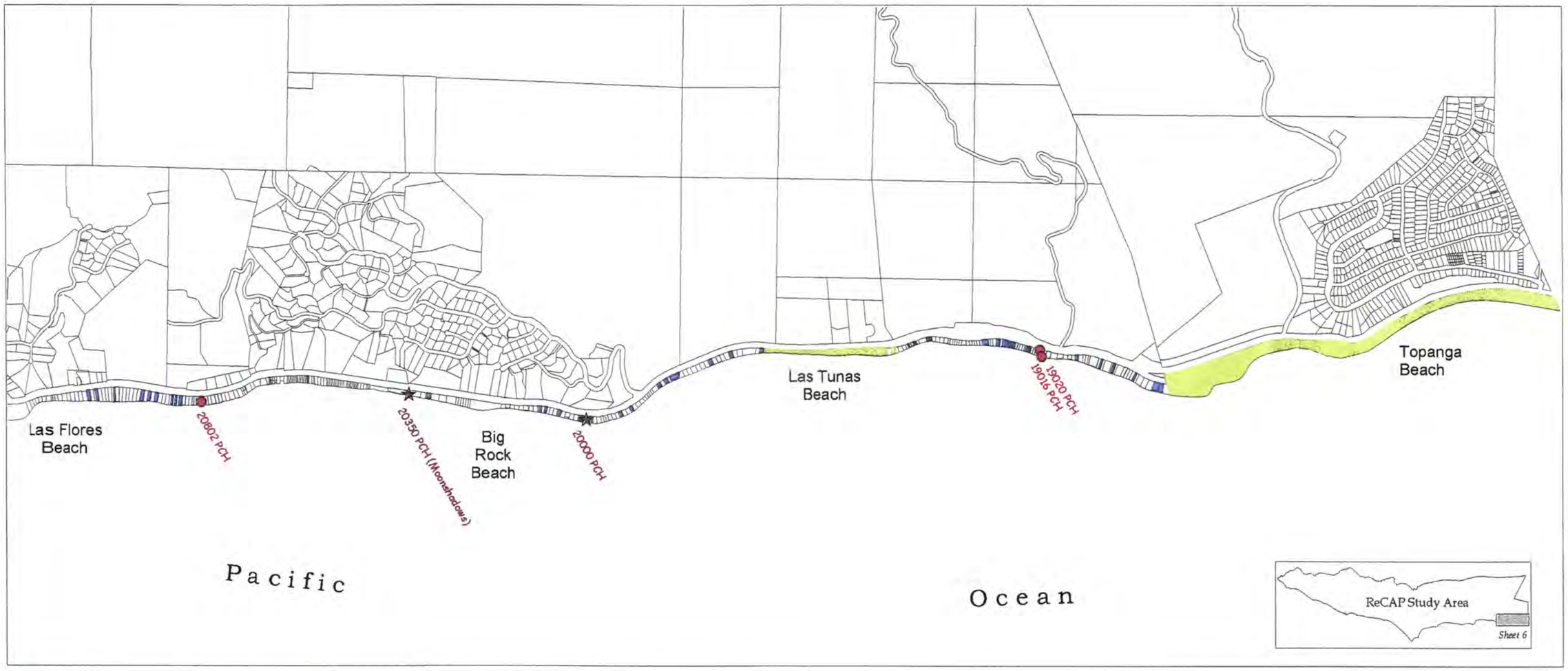
Public Access to and along the Shore
Los Angeles County



- Potential Vertical Accessways
- Existing Vertical Accessways
- Potential Lateral Accessways
- Existing Lateral Accessways
- Public Lands
- Private Parcels

N
W E
S

0 2000 4000 Feet

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC Access Program Database, *California Coastal Access Guide, 5th edition.*

California Coastal Commission
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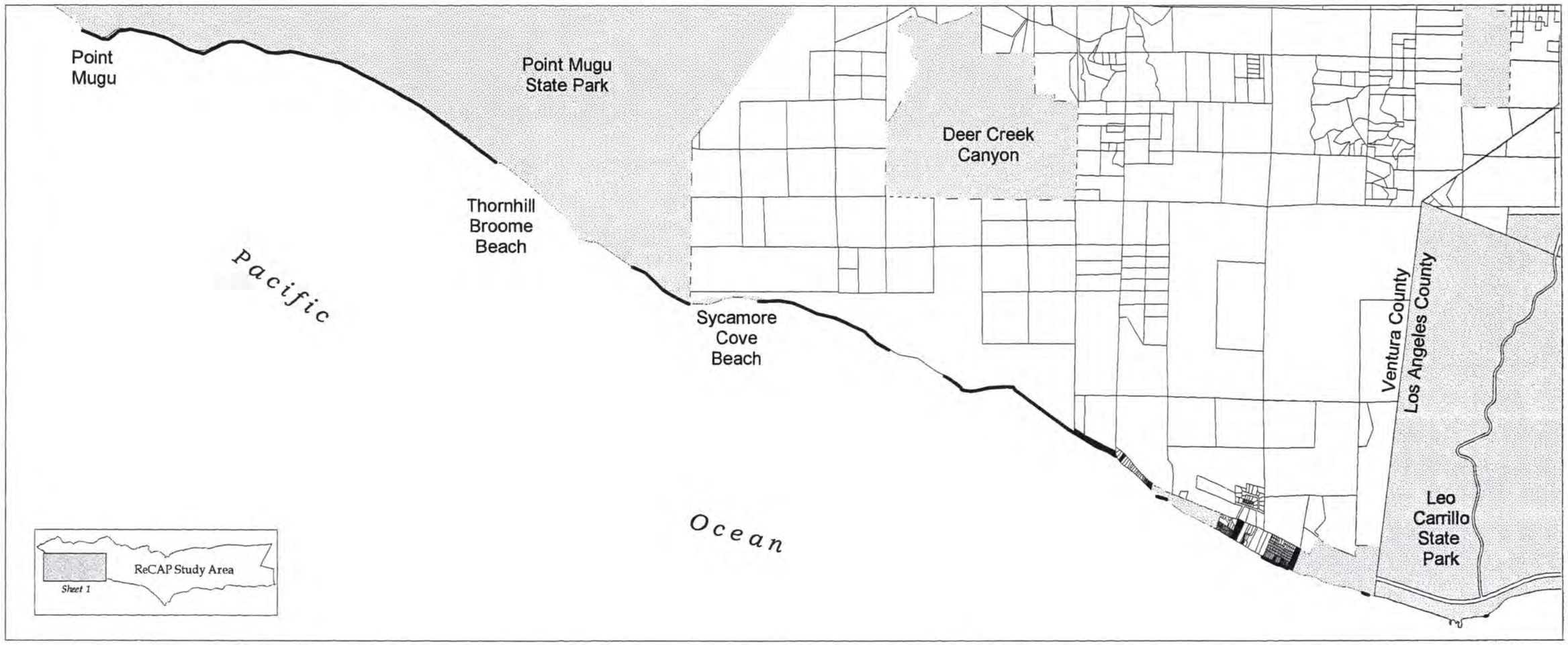
Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Figure A-4a
Preliminary Draft
Sheet 1 of 6

Shoreline Armoring Inventory



Non-CCC Approved Armoring

CCC Approved SPD, 1978-1996

State Beach, County Beach or Park Land

Private Vacant Shorefront Parcels

N
W E
S

0 1 Mile

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC ReCAP Database and Aerial Photo Interpretation (see Methodology Section). Assessor's Information via TRW Experian.

California Coastal Commission
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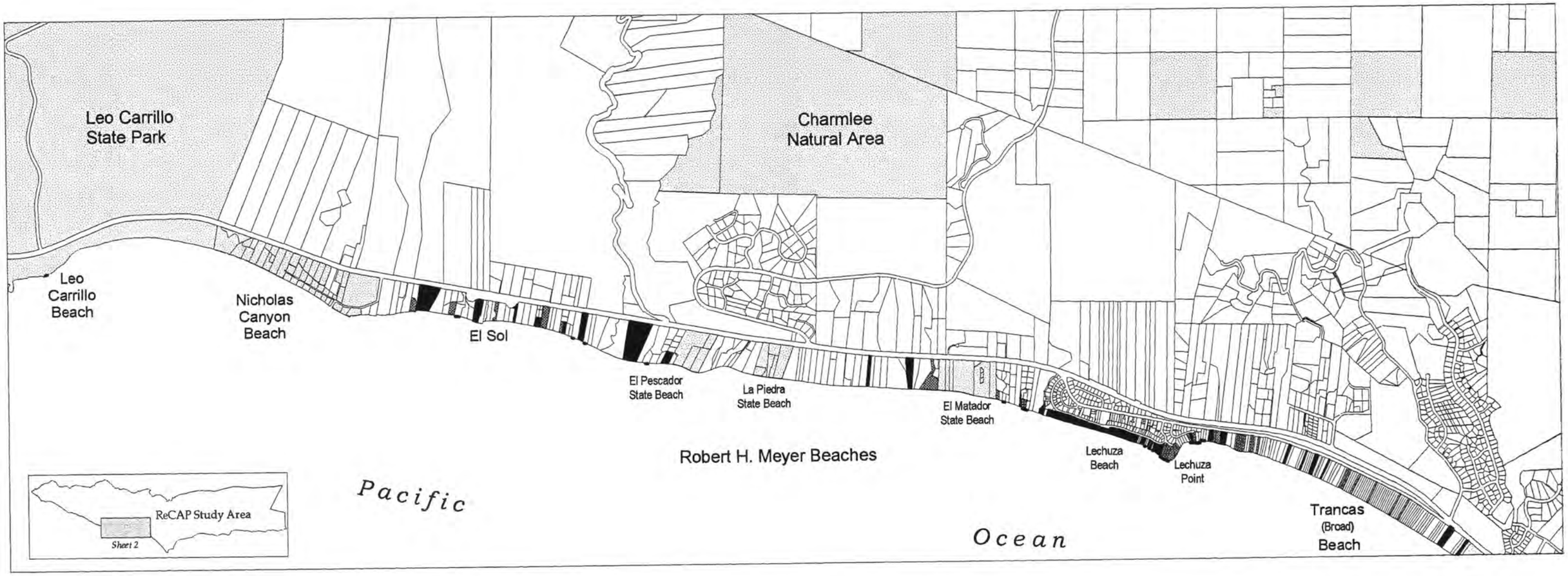
Figure A-4b
Preliminary Draft
Sheet 2 of 6

Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Shoreline Armoring Inventory



Non-CCC Approved Armoring

CCC Approved SPD, 1978-1996

State Beach, County Beach or Park Land

Private Vacant Shorefront Parcels

N
W E
S

0 1 Mile

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

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1998

Figure A-4c
Preliminary Draft
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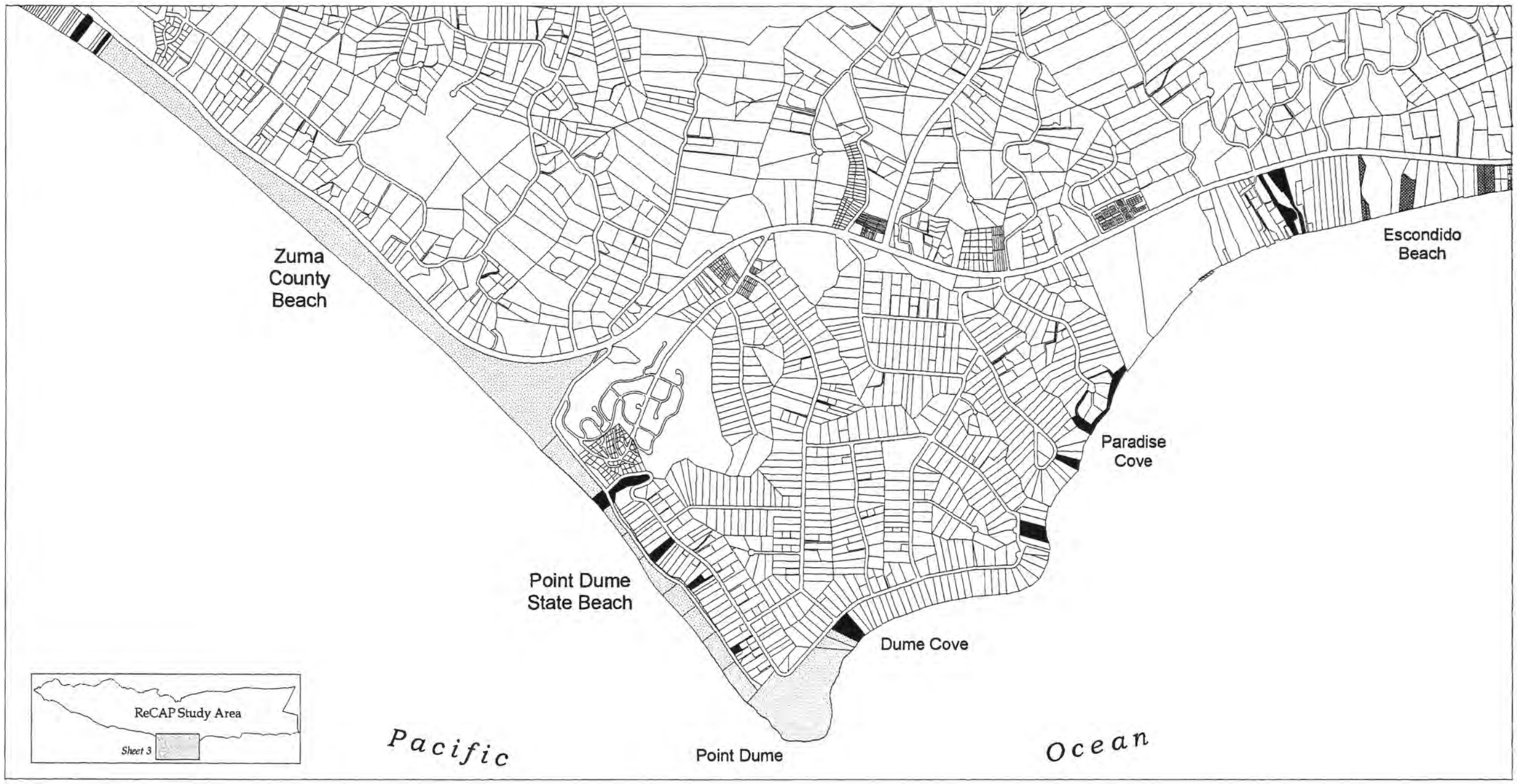
Shoreline Armoring Inventory



Non-CCC Approved Armoring

CCC Approved SPD, 1978-1996

State Beach, County Beach or Park Land

Private Vacant Shorefront Parcels

N
W E
S

0 2000 4000 Feet

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC ReCAP Database and Aerial Photo Interpretation (see Methodology Section). Assessor's Information via TRW Experian.

California Coastal Commission
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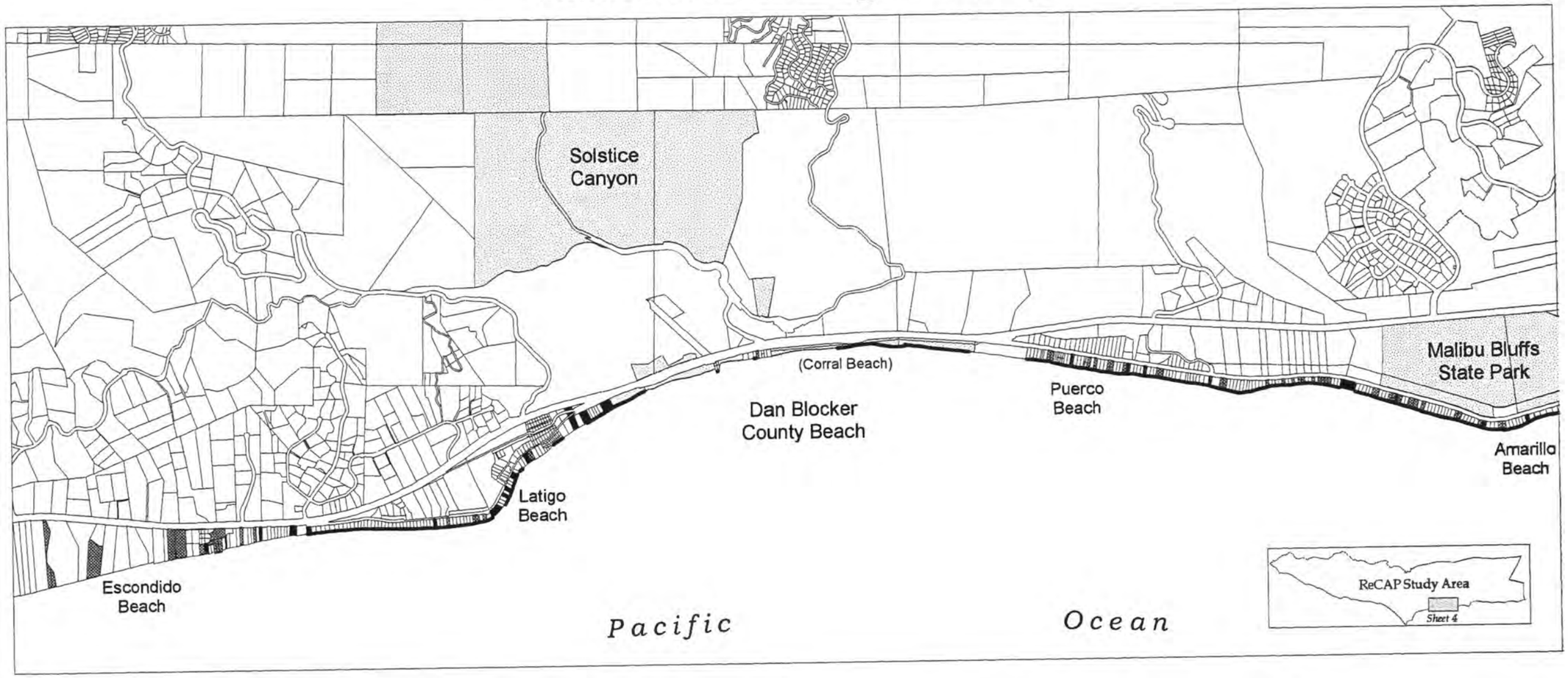
Regional Cumulative Assessment Project:
Santa Monica Mountains/Malibu Area
1998

Shoreline Armoring Inventory



Non-CCC Approved Armoring

CCC Approved SPD, 1978-1996

State Beach, County Beach or Park Land

Private Vacant Shorefront Parcels

N
W E
S

0 2000 4000 Feet

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC ReCAP Database and Aerial Photo Interpretation (see Methodology Section). Assessor's Information via TRW Experian.

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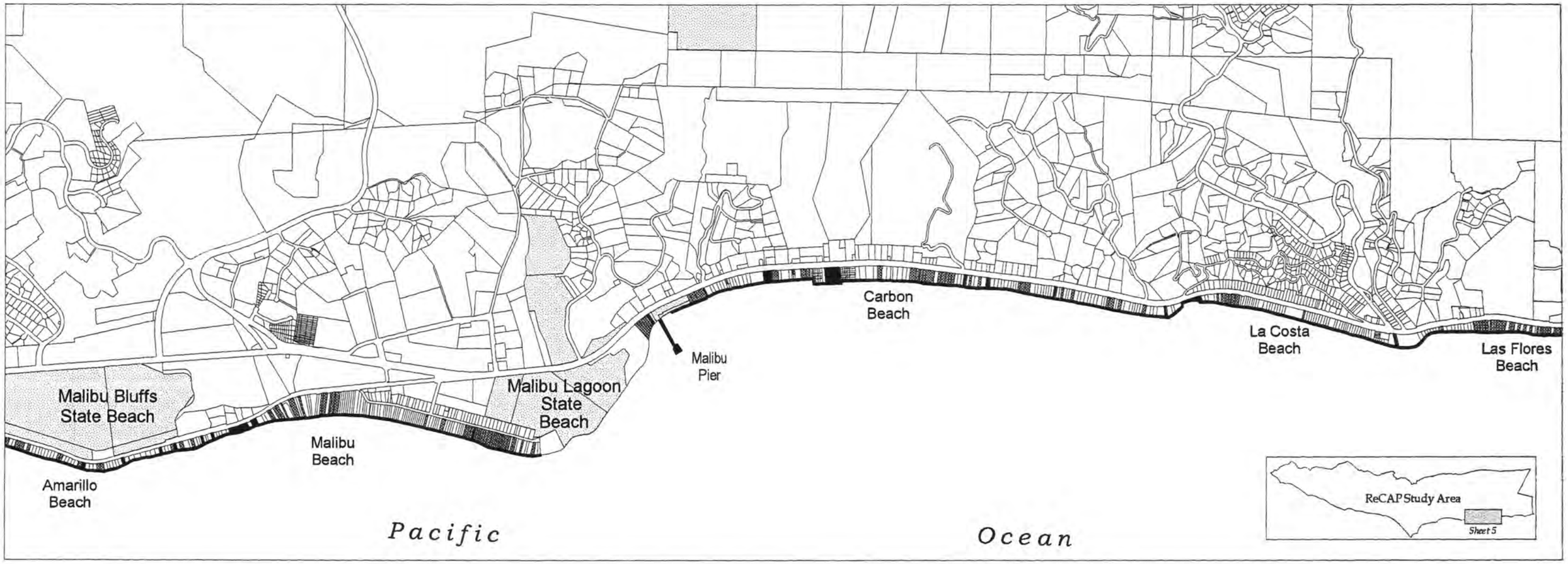
1998

Figure A-4e
Preliminary Draft
Sheet 5 of 6

Shoreline Armoring Inventory



Non-CCC Approved Armoring

CCC Approved SPD, 1978-1996

State Beach, County Beach or Park Land

Private Vacant Shorefront Parcels

N
W E
S

0 2000 4000 Feet

California Coastal Commission
ReCAP & Technical Services Division

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

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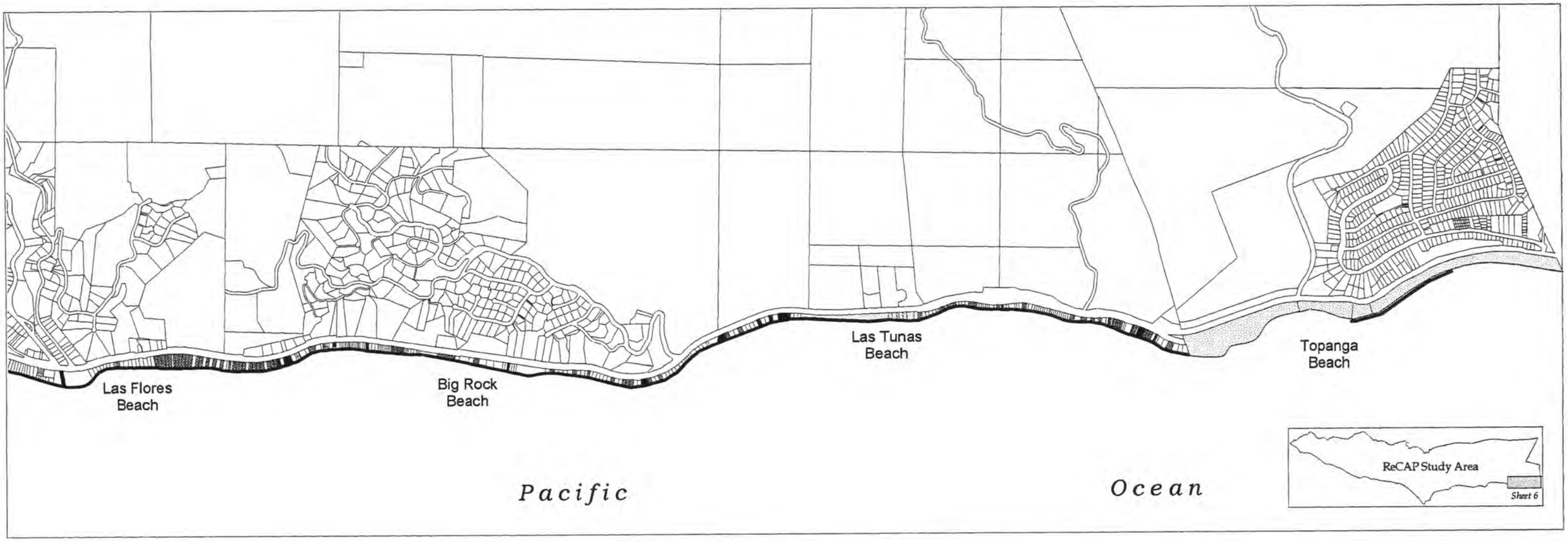
Santa Monica Mountains/Malibu Area
1998

Figure A-4f
Preliminary Draft
Sheet 6 of 6

Shoreline Armoring Inventory



Non-CCC Approved Armoring

CCC Approved SPD, 1978-1996

State Beach, County Beach or Park Land

Private Vacant Shorefront Parcels

0 1000 2000 Feet

Map Note: The information presented on this map is preliminary and subject to revision. All locations are approximate and data have not been field checked. Attempts have been made to ensure completeness of the data, nevertheless, inaccuracies may exist.

Sources: CCC ReCAP Database and Aerial Photo Interpretation (see Methodology Section). Assessor's Information via TRW Experian.

California Coastal Commission
ReCAP & Technical Services Division

II. Methods of Analysis for Concentration and Location of Development Assessment:

A. Development of the ReCAP Permit Database

The ReCAP permit database reflects Commission permit actions from 1978 through 1996, inclusive, for that part of the following jurisdictions located within the Coastal Zone: Los Angeles County from the City of Los Angeles border to the Ventura County border; City of Malibu; and Ventura County from the Los Angeles County border to the eastern boundary of the Calleguas Creek watershed. The objective was to assemble a set of basic information for each permit application on which the Commission acted between 1978 and 1996. In anticipation of the desire to map the Commission actions using a Geographic Information System (GIS), special effort was made to include Assessor's Parcel Numbers (APNs) for each proposed development.

The database includes records of the following Commission actions:

Coastal development permits – approvals and denials
Emergency permits issued
Amendments – approvals and denials
Revocations – approvals
Extensions – denials
Reconsiderations – approvals
Pre-1981 State Commission appeals of Regional Commission permits
Post-certification appeals to Commission (1983-96) from Ventura County
Federal Consistency Determinations and Certifications

The database does not include revocations denied, extensions approved, reconsiderations denied, waivers, exemptions, or returned and withdrawn permit applications

The database was constructed using a wide range of original source materials. Commission sources included the following:

Permit appeals database (San Francisco office)
Federal Consistency database (SF)
Statewide Access Program database (SF)
Legal Division TDC database (SF)
Commission Action database (SF)
WANG Computer System database (SF)
Collection of Green Binders containing permit staff recommendations and revised findings (SF)
Permit logs for Long Beach and Ventura offices
Permit files in Long Beach and Ventura offices
Regional Commission permit files for 1978-81 (LB)
Database of Commission meeting agenda items (SF)
Permit Tracking System data for 1990-96 (Ventura office)

Non-Commission sources included the TRW Experian database (consisting of the Los Angeles and Ventura County Assessor's tax roles and Assessor maps) and the Ventura County coastal development permit and appeal database.

The ReCAP permit database was constructed by ReCAP staff in MS Access. Initially, a list of Commission permits for the 1978-96 time period in the study area was transferred from other existing databases (the Commission Action, Commission meeting agenda database, and WANG Computer databases) to a new PC system. Next, more detailed project information for each permit was obtained from staff recommendations and revised findings and entered into the database. Where possible, drop lists were developed to minimize variation in data entries. The data fields collected included:

Project Location (address and assessor parcel number).
Development Type (a permit can have more than one development type (e.g., construction of a residence with grading and a shoreline protective device)).
Project Description.
Project Attributes (this category recorded the number of units and/or parcels involved (existing, change proposed, change approved, new total)).
Commission Action.
Issues (a permit can have more than one issue type).
Permit Conditions (public access, TDC, and GSA).

The Green Binders containing staff reports and findings were found to be missing some reports. Staff then tried to locate at least some basic information on those permits missing a staff report or revised findings by using the project descriptions from the Commission's meeting agenda database to obtain development type, project location, and project description data. The ReCAP permit database was then checked against the District office permit log books to identify any permits that may have been missed due to the lack of a staff report in the Green Binders; the database was updated with log book information.

Wherever possible, APNs were entered from the staff report or revised findings. Where no APN was provided in the staff report, the project street address was compared with Assessor's data from the TRW Experian tables to identify an APN. For most permits, this is as far as time would permit us to pursue the elusive APNs. For subdivisions, ReCAP staff wanted as complete a record as possible, so if the APN was still missing, the staff report in the Green Binder was checked to see if an exhibit showing the location of the subject parcel was available. If so, then the project site maps were compared to assessor parcel maps, the subject parcel located, and the APN entered into the permit database. If this was unsuccessful, the original permit file was searched for documents that might have the APN (permit application form, property tax bill, site plans).

Finally, quality control was undertaken to ensure all permit records had an up-to-date APN (i.e., one that would match a parcel on the GIS), an accurate development type, and a valid Commission action. Database sources, particularly the TRW Experian database, Commission Action database, assessor parcel maps, staff reports, and permit log books,

were compared to fill in as many missing blanks in the permit database as possible and to resolve any discrepancies in the data obtained from different sources.

The completed ReCAP permit database and the GIS serve as the foundation for the ReCAP assessment of cumulative impacts in the study area. While there are no restrictions on distribution of the ReCAP permit database, the ReCAP GIS parcel map, which is based on linework received from the National Park Service that ReCAP staff attributed using TRW Experian data, cannot be released due to ownership issues with the County of Los Angeles, originator of the parcel linework. The same restrictions apply to any GIS layers derived from the parcel map. Likewise, the TRW Experian database is used by license agreement only and cannot be duplicated or released.

B. Mapping TDC Lots

To spatially locate the lots involved in TDC transactions onto a GIS layer, ReCAP needed to identify the Assessor's Parcel Numbers (APNs) for the lots involved. While the Commission had an existing Wang database for TDC and GSA transactions, it could not be linked directly to the GIS to map the location of the TDC/GSA affected lots. Most of the lots in the Wang database were identified by either a Tract, Book, Lot numbering system, or described by a township/range numbering system, neither of which could match to the APNs on the GIS parcel map to create a layer showing the location of the TDC/GSA lots. Other records in the Commission's existing database had no spatial information identifying the retired lots.

Therefore, ReCAP created a new GIS compatible database of TDC lots; this new database relied on the information in the existing database as the initial data source, but updated and converted data where necessary to be able to map the affected lots. Where the original Wang database identified TDC lots by a Tract, Book, Lot numbering system, ReCAP staff used Assessor's maps (via the TRW Experian CD Rom) to translate the Tract, Book, Lot numbers into APNs. For cases where the Wang database had no spatial information for lots retired, ReCAP staff determined the APN for affected lots by comparing the maps recorded with the legal documents completed as part of condition compliance to current assessors' parcel maps (TRW maps).

APNs for lots were then entered into the new TDC database. The new database also identifies which lots are retired under the TDC program and which lots are the recombined lots. (Under the TDC program, retired lots need to be "recombined" or tied to other, developable lots.) Using the existing data in the Wang database to determine which lots were retired and which lots were recombined, ReCAP staff assigned a 0 to each APN for recombined lots and a –1 for each retired lot; this data is entered under the field "Retired". In many cases, lots retired under the TDC programs have been recombined into a larger parcel, with one APN. In these cases, ReCAP entered the actual number of lots retired. For example, if one parcel is comprised of six former lots, three of which were retired under the Commission's TDC program, ReCAP staff entered –3 in the "Retired" field.

In some cases, a single lot is used in several different TDC transactions, under different permits. This occurs most often when a permit expires, or the project is never completed, after a TDC transaction is started. In these cases, an applicant may transfer the lots completed under the now expired permit to a new permit to comply with a TDC condition required under the new permit. In other cases, lots retired under one permit may be joined to lots being retired under a second permit, to create a larger area. Where a lot is involved in more than one permit, ReCAP relied on the action of the latest permit to determine whether the lot was retired or recombined. The other permits are referenced in the comment and "TDCid" field.

Where the entire parcel was retired, ReCAP staff linked the new TDC database to the GIS parcel layer to map the location of the retired lots; this layer was then saved as a shapefile. To accurately map the TDCs, ReCAP took the additional step of identifying the *specific* lots in the parcel and mapping only those lots as TDC retired. Where the entire parcel was not retired, ReCAP used the old lot numbers, TRW maps, and a GIS layer showing the old lots (rather than the entire parcel) to select the specific former lots that were retired, and saved these lots as a shapefile. (Note: ReCAP staff did not specify the precise lots where parcels are now part of a park, since development on any of these park lots is unlikely. ReCAP staff did, however, enter the actual number of lots retired in the "Retired" field of the database.)

In a number of cases, the original TDC database identified retired lots through a township/range system. To map these lots, ReCAP overlaid a GIS township/range layer (Public Land Survey System) onto the parcel map and manually identified the location of the affected lot. ReCAP staff then manually divided the parcel to match the legal description and saved the layer as a shapefile. To determine the number of former lots retired, ReCAP overlaid the GIS layer showing the individual lots, and determined how many individual lots were retired in each mapped parcel. This number was then entered in the "Retired" field of the TDC/GSA database.

The three shapefiles (entire parcels retired, specific lots within a parcel, and parcels based on township/range) were then combined into one layer to achieve a final map of TDC affected lots. The TDC map includes the locations of TDC lots where the recordation of the documents may not be completed. However, where ReCAP could identify that a permit requiring a TDC transaction expired, or the TDCs were required under a subsequent permit, the TDCs under the original permit are not included on the TDC map.

C. Mapping GSA Lots

In the original Wang database, GSA lots are identified either through the word GSA or SLS. ReCAP staff used the same process described above to identify the APNs for the affected lots and map the lots onto a GIS layer. To create the shapefile for GSA lots, ReCAP queried the database for "GSA" or "SLS". Under the GSA process, lots may not be retired in the same manner that TDC lots are retired. The GSA process recombines lots to allow a larger building size; in some cases, the development may span across all

the GSA lots. In other cases, a larger residence may be placed on one lot, and other lots nearby may be fully retired.

For the GSA lots, ReCAP entered the number of lots effectively retired under the "Retired" field. For example, if four lots were involved in a GSA transaction, three of those lots could not be developed with a new residence. (Even if the one approved residence crossed all four lots, only one residence was allowed, not four, thereby effectively retiring three lots.) Because of the nature of the GSA program, ReCAP staff did not attempt to identify which lots were developed and which were "retired", but simply entered the number of effectively retired lots into the "Retired" field of the GIS shapefile's attribute table for each recombined lot.

D. Mapping Subdivisions

To obtain an accurate count of the number of new lots created through Commission approved subdivision permits, and to verify condition compliance for TDC requirements, ReCAP needed to account for whether the approved subdivision actually occurred. For those subdivision permits where ReCAP staff had access to project files (primarily post 1987), ReCAP staff determined if the approved permit had expired; in many cases, the subdivision permit may have expired based on the Commission's process, but was extended through a variety of legislative bills. Where ReCAP staff could determine that a subdivision permit was known to be expired or was superceded by another permit, this status is indicated in the permit database (permit status field). Where legislation may have extended the permit, that database indicates that the permit is "presumed to be alive".

As a second step, ReCAP compared current (1997) assessor's parcel maps (from TRW) with project maps in the permit file to determine whether the subdivision had occurred. If the assessor's parcel maps showed the proposed subdivision, ReCAP staff entered as the project status "Built/subdivided". Since ReCAP staff did not field check any of the approved permits, the status field refers to ReCAP's assessment of the subdivision status.

E. Calculating Density and Buildout in Small Lot Subdivisions

The following paragraphs described ReCAP's methodology for calculating the potential buildout in small lot subdivisions (Table 3-3).

Percentage of lots potentially developable: For this analysis, ReCAP defined "potentially developable" parcels as those parcels that are *not* identified in ReCAP's GIS database as NPS Parkland or State/Other Parkland (see Section III-A for ReCAP's methodology on identifying parkland), and are not fully retired. ReCAP excluded these parcels due to 1) the fact that fully retired parcels cannot be developed; and 2) parkland will generally not be developed, or development will be limited to recreational support. Parcels included as potentially developable may be partially retired (i.e., one or more former lots in the parcel may be retired, but the parcel as a whole can be developed). The number of potentially

developable parcels was then divided by the total number of parcels in the small lot subdivision, obtained from the GIS parcel map and database.

Projected Density in 1979: *Number* of total parcels in 1979 (based on McClure, 1979) divided by total acreage in each small lot subdivision.

Current Density (1998): The current density of each small lot subdivision is based on the number of developed parcels divided by the total acres for each small lot subdivision. (See SectionG below for ReCAP's methodology on determining developed versus vacant parcels.) For its analysis, ReCAP staff assumed that if any portion of the parcel was developed, the parcel was considered developed, even if a *portion* of the parcel was retired through the TDC program.

Planned Density under LUP: Using the LUP designations, ReCAP staff estimated the density for each small lot subdivision that would occur if fully developed based on the LUP standards.

Future Projected Buildout: To determine this number, ReCAP subtracted the number of fully retired parcels (those where *no* development could occur) from the number of 1998 vacant parcels to give the number of existing vacant lots that potentially could be developed in the future, absent any additional lot retirement. This number was added to the number of existing developed parcels and divided by the total acres in each small lot subdivision to get the total potential buildout for each small lot subdivision.

F. Calculating Expiration Dates of OTDs

For a single permit, TDC transactions may be done in several different years. To calculate the expiration date of the OTDs, ReCAP assumed that all OTDs for a given permit were recorded in the same year, and assumed a 21 year expiration date. (ReCAP verified that approximately 2/3 of the files had a 21 year expiration date.) A number of TDC transactions occurred through a sale of TDCs from the Coastal Conservancy to third parties; these transactions did not involve an OTD, and are not included in the calculations. Lots where TDC OTDs have been accepted (nine) are not included in the graph.

G. Determining Vacant and Developed Parcels

A map of vacant and developed privately owned parcels was created by using the TRW Experian database (here termed "TRW"). First, parcels owned by public agencies were identified based upon their Assessor Parcel Number (for example, LA County APNs ending in "900" indicate public ownership). These parcels were compared to the areas identified as public and park land in the April 1997 "Land Protection Plan" of the NPS. Discrepancies were identified and resolved based on the specific ownership shown in TRW. A data layer was prepared which excluded the identified publicly owned parcels.

To determine whether the remaining private parcels were vacant or developed, the TRW database was used again. The database contains two fields showing current land use, a "County Land Use Code" field (illustrated below) and a "IRIS Land Use" field. These two sets of data on land use were compared. Where both fields indicated the parcel was vacant, the parcel was marked as "Vacant". Where both indicated the parcel was developed, the parcel was marked as "Not Vacant". Where the two land use fields had conflicting information, the discrepancy was resolved using other TRW fields, including assessed improvement value of more than $1,000, fields listing improvements or other data indicating there is some kind of structure on the parcel. (e.g. "Total Rooms," "Bedrooms," "Building Area," "Units," "Stories," or "Year Built etc.). Where one or more of these fields indicated a development present, it was assumed the parcel was developed.

Example: TRW APN data "**County Use Code**" field

Developable Vacant Land:

010V -Vacant Residential Land
100V -Vacant Commercial Land
300V -Vacant Industrial Land
all 4000 series (Irrigated farms)
all 5000 series (Dry farms)

Undevelopable Vacant Land:

8800-8899- Govt. lands including parks
880V-vacant Govt. land

H. Identifying Parklands and Other Public Parcels

The April 1997 National Park Service (NPS) "Land Protection Plan" GIS Tract Map layer provided by the NPS was taken as the most recent summary map showing public lands. This data layer, however, does not in all cases have detail down to the individual parcel level of the study's parcel base map. In addition, the tract boundaries shown in the NPS layer do not correspond exactly with the parcel boundaries of the base parcel map. To transfer the Tract map's ownership data (categories were **"National Park Service," "State Parklands," "Other Parklands"** and **"Private Lands"**) to the spatially more accurate parcel map, ReCAP staff manually compared the two layers using the GIS. Attributing of the parcel map for public ownership was verified using the TRW field "Owner".

I. Identification of "Constrained" Lands

The "constrained lands" map (Figure 3-3), graphs (Figures 3-4 and 3-9) and tables (Tables A-1 and A-2) illustrate one set of significant constraints. Throughout the recent history of planning in the Malibu/Santa Monica Mountains region, the protection of Environmentally Sensitive Habitat Areas (ESHAs) and the avoidance of development on

steep slopes have been significant concerns. Maps of ESHAs in the LUP documents for LA and Ventura counties were digitized. Land use policies and the Commission's actions in the area generally provide for a 100' buffer surrounding ESHAs, so the area of these areas were also calculated and mapped. USGS Digital Elevation Model data was available for the entire area, and was processed using ArcView's Spatial Analyst extension to produce slope maps. The 25% slope factor was used because it is generally recognized as an indication of steep slopes, was often was cited in Commission permits in the area, and additionally is the level where LA County's Hillside Management Ordinance comes into effect. To take into account the potential impact of 200' fire clearance requirements on ESHA lands, a subsequent map was produced to show ESHAs and parklands with a 200' area around them. Parcels entirely contained within the 200' buffer area were identified since any development on those parcels would require brush clearance on public parklands or within an ESHA to meet fire department requirements.

Table A-1: Percent of Parcel/Lot Constrained

Percent of Parcel/Lot Constrained	Ventura Potentially Subdividable Parcels	Ventura Vacant Residential Lots	Malibu Potentially Subdividable Parcels	Malibu Vacant Residential Lots	LA Co Potentially Subdividable Parcels	LA Co Vacant Residential Lots	Subtotal	Percent of Total
0-0%	34	14	140	325	9	488	1010	16.82%
0-10%	1	4	31	48	14	167	265	4.41%
10-20%	4	7	20	41	10	104	186	3.10%
20-30%	4	1	24	49	21	109	208	3.46%
30-40%	2	2	13	48	17	89	171	2.85%
40-50%	2	5	18	53	23	113	214	3.56%
50-60%	3	8	20	42	35	152	260	4.33%
60-70%	6	11	20	75	52	157	321	5.35%
70-80%	11	21	16	62	39	228	377	6.28%
80-90%	44	30	35	80	78	312	579	9.65%
90-100%	36	114	115	399	90	1658	2412	40.18%
Subtotal	147	217	452	1222	388	3577	6003	100%
Percent of Total Parcels/Lots	2.45%	3.61%	7.53%	20.36%	6.46%	59.59%	100%	

Table A-2: Square Feet of Parcel/Lot Unconstrained

Square Feet Unconstrained	Ventura Potentially Subdividable Lots	Ventura Vacant Residential Lots	Malibu Potentially Subdividable Lots	Malibu Vacant Residential Lots	L.A. Co. Potentially Subdividable Lots	L.A. Co. Vacant Residential Lots	Subtotal	Percent of Total
500	68	78	62	314	7	1761	2290	38.15%
1000	4	0	4	20	1	138	167	2.78%
2000	5	2	11	34	2	248	302	5.03%
3000	4	4	9	31	1	210	259	4.31%
4000	4	3	7	33	1	196	244	4.06%
5000	4	2	7	36	2	216	267	4.45%
10000	19	9	87	117	13	359	604	10.06%
15000	10	9	18	83	10	59	189	3.15%
30000	20	8	59	161	11	74	333	5.55%
100,000 (2.3 acres)	45	16	81	322	70	129	663	11.04%
1,000,000 (23 acres)	34	13	105	71	245	177	645	10.74%
> 1,000,000	0	2	2	0	25	11	40	0.67%
Subtotal parcels	217	146	452	1222	388	3578	6003	
Percent of Total	3.61%	2.43%	7.53%	20.36%	6.46%	59.60%	100%	100.00%

J. Buildout Scenario Methodology

The assessment of current and potential future development is the foundation for a cumulative impact analysis. For purposes of this study a "buildout scenario" was developed to represent one possible picture of future development. This buildout scenario incorporates the following factors:

County Assessor data as reported by TRW Experian in 1997 were used to determine vacant land, the number of currently existing units, and public/private ownership of each parcel. However, the parcels used for this analysis may not all be legal parcels and may not all be able to obtain certificates of compliance in order to be developed. A determination of which lots are not legal lots was outside the scope of this project, so for purposes of this project analysis, the number of parcels is only a theoretical maximum.

Since most of the private land in the project area is designated for some form of residential use, the analysis of buildout is focused on the potential for additional residential units. Land use designations and densities for the scenario were taken from the applicable coastal land use planning document for each jurisdiction: the certified coastal Land Use Plan (LUP) for the unincorporated LA County portion of the project area, the current City Zoning Districts for the Malibu City portion of the project area, and the certified coastal LUP for the Ventura County portion of the area.

The analysis does *not* factor in the application of other policies, which could significantly affect permitted density or use.

Where a range of densities were indicated for a given land use designation, the maximum density was used.

Where portions of a parcel had different density designations, density was calculated for each separate portion of the parcel, and the composite total of allowed units was calculated using the GIS.

The potential for lot-line adjustments, mergers and resubdivisions was not taken into account in the scenario presented. However, a separate calculation was done to assess the additional number of residential units that could hypothetically result from reconfiguring all parcel lines to produce the maximum density under the applicable plans. This analysis yielded approximately a 5% higher number of units.

Properties that were determined to have potential for additional units under this scenario fell into two categories, termed " Potential Buildable Lots" and "Potential Subdividable Parcels" for purposes of this project.

"Potential Buildable Lots" are vacant, private lots that are not large enough to qualify for more than one unit under the applicable densities.

"Potential Subdividable Parcels" may be vacant or have existing units, but are large enough to provide for one or more additional units under the applicable densities. For example, a 39.99 acre parcel with an applicable density of 1 unit per 10 acres was calculated to have a total allowable buildout of 3 units; if one unit already existed on the parcel, the potential new units were shown as 2.

In the discussions of the TDC and GSA programs, the report also frequently uses the terms "lots" and "parcels". Just as a subdivision may divide what the ReCAP team terms a "parcel" into several "lots," these programs may combine several lots (which is often called "former lots") to create a single, larger parcel. When referring specifically to the former lots and not the entire parcel, this report cites the number of lots. Where data is cited from existing reports, the report uses the terminology from the reference.

III. Methods of Analysis for Public Access Assessment

A. Determination of Acquisitions of Public Recreation Lands

The National Park Service provided a digitized tract map depicting public lands and ownership in 1997. Using the NPS map as a base, the acquisition information was added. The sources for the 1979 information were the land use maps that accompanied the 1979 *Santa Monica Mountains Comprehensive Plan*, prepared by the Santa Monica Mountains Planning Commission. The NPS tracts were modified to resemble the SMM Planning

Commission data. The 1979 ownership information was then manually assigned to the NPS tracts within the coastal zone.

Post-1979 acquisition information was obtained from a variety of sources: the 1982 *Malibu Land Use Plan*, the 1983 *SMMNRA Draft Land Protection Plan*, the 1981 and 1991 versions of the California Coastal Access Guide, the April 1997 Map of the NPS *Land Protection Plan within the SMMRA*, as well as personal communications with Neil Braunstein of California State Parks, and various NPS staff members.

B. Development of the Public Access Database

To identify the number and location of public access Offers to Dedicate (OTDs), Deed Restrictions and Other Legal Instruments the ReCAP staff used several sources: the Commission Access Program database, the ReCAP permit data base, the Parcel Map provided by the National Park Service as attributed by ReCAP staff using assessor's data from TRW Experian, and a list of easements provided by the State Lands Commission.

In order to illustrate the public access opportunities spatially, ReCAP staff linked the Access Program database to the ReCAP Parcel layer using APNs. In the case of permits where no APN was recorded in the database, ReCAP staff used the project address and assessors parcels maps to determine the correct APN. To obtain lateral access information, staff used the Access Program database augmented by a list of lateral easements accepted by the State Lands Commission.

C. Determination of Changes in Inland Trails

One of the ReCAP objectives was to evaluate the effectiveness of the Commission's implementation of Coastal Act public access policies and, in particular, the measures used to minimize and mitigate development impacts on inland trail access. This section discusses the process that the ReCAP staff used to locate and categorize the inland trail OTD easements that serve as mitigation for development impacts, and the assumptions that underlie the preliminary recommendations to improve trail access mitigation and opportunities in the Santa Monica Mountains.

The ReCAP permit database identified 172 coastal development permits (encompassing 210 individual parcels) approved by the Commission from 1978 through 1996 which included a special condition requiring the recording (prior to permit issuance) of an offer to dedicate (OTD) a public easement for inland trail access. Parcels included in a coastal development permit application but which were not specifically a part of the OTD easement requirement are not included in the 210 parcel count (e.g., a permit for subdividing an existing lot into eight parcels may include an OTD trail easement requirement that crosses only two of the new parcels. Therefore, while the permit is one of the 172 identified in the database, only two of the parcels are included in the 210 parcel count). Next, an up-to-date assessor parcel number was confirmed for each parcel covered by an OTD easement requirement, and the parcels were identified and mapped

on the parcel-based ReCAP Geographic Information System (GIS) using the Los Angeles County and Ventura County parcel map layers. The parcels were then assigned to one of three OTD status categories based on information from the Statewide Access Program database: (1) recorded and accepted by a public agency or private entity; (2) recorded but not accepted; and (3) required but not recorded. The OTD parcels are mapped by category on the map, "Offers to Dedicate an Inland Public Trail Easement" (Figure 4-5).

After the inland trail OTD easements were mapped, ReCAP staff evaluated the effectiveness of the OTD easements as mitigation for impacts arising from permitted development. The preliminary recommendations developed by the ReCAP staff to improve trail access mitigation and opportunities rest on the following assumptions:

Demand for inland trail recreation in the Santa Monica Mountains will increase due to projected population increases in the Los Angeles-Ventura counties metropolitan area.

The coastal development permit special condition that requires an offer to dedicate an inland trail easement as mitigation for development impacts on trail access will in the future be infrequently used by the Commission.

Until existing inland trail OTD easements are opened and made available for public use, development impacts that triggered the OTD special condition are not fully mitigated.

One or more public agencies or acceptable private entities will be identified to accept, open, and/or manage existing recorded inland trail OTD easements.

Significant time period will pass until the inland trail OTD easements (those currently accepted and those only recorded) are opened to public use.

The 21-year-long recordations of the OTD easements will begin to expire in 1999, and will not be extended.

The vast majority of the 84 inland trail OTD easements required by the Commission but not yet recorded will remain unrecorded, primarily because the permit expired or was superseded by a more recent permit.

Based on these assumptions, the preliminary recommendations focus on opening the existing accepted and recorded OTD easements, protecting those OTD easements from unpermitted encroachments, and supporting public funding to acquire easements and parcels to close gaps in the public trail system in the Santa Monica Mountains.

D. Comparison of Existing Vertical Public Access to Suggested Minimums

The following table contains a beach-by-beach comparison of existing vertical accessways and opportunities to the suggested minimums described in the Beach Access Program of the Malibu/Santa Monica Mountains Land Use Plan, certified in 1987. Please note: Leo Carrillo, Nicholas Canyon, Zuma, Point Dume, Malibu

Lagoon/Surfrider, and Topanga beaches are not shown in the table below because they are public beach areas and there is no guidance in the LUP regarding additional vertical easements in the area.

Table A-3: Comparison of Existing Vertical Access to Suggested Minimums

Beach Name	Suggested Minimum Vertical Accessway Spacing	Existing Access	Access Opportunities	Access Meeting Goal?	Priority	Comments
Encinal	1 vertical per 2,500 feet. Two verticals between Nicholas Canyon Beach and Pescador Beach. El Sol Beach could be one. The other vertical to be located 600 ft. west of El Sol.	Robert H. Meyer State Beaches (El Pescador)	El Sol Beach (L.A. County)	No	High	No verticals exist between Nicholas Canyon Beach and El Pescador (1.1 miles).
Lechuza	1 vertical per 2,000 feet.	Robert H. Meyer State Beaches (La Piedra, and El Matador)	None	No	High	
Trancas	1 vertical per 1,000 feet.	One vertical accessway (31344 Broad Beach Road)	31736 Broad Beach Road.	No	Moderate	0.6 miles between 31736 Broad Beach opportunity and 31344 Broad Beach Road.
Paradise Cove	1 vertical per 2,000 feet- no fewer than 2 accessways. 3 blufftop view points	None. (Private recreation available)	None	No	Moderate	Marine Resource policies restrict access to the area east of existing development at Paradise Cove.
Escondido	1 vertical per 2,000 feet. (with at least 2 in addition to the existing accessway at Escondido Creek/ Holiday House.	Two vertical accessways open, including: 27420-27428 Malibu Road and Escondido Creek (27150 Malibu Rd.).	27900 PCH, 27700 PCH, and 27400 PCH.	No	Moderate	2.5 miles from Point Dume County Beach to 27420-27428 accessway.

Beach Name	Suggested Minimum Vertical Accessway Spacing	Existing Access	Access Opportunities	Access Maximized?	Priority	Comments
Latigo	1 vertical per 1,000 feet. Blufftop view sites.	Two accessways open, including 26470 PCH and an L.A. Co. parcel just east of 26470 PCH.	26834 Malibu Cove Colony Drive.26520-26524 PCH,+	No	Moderate	0.5 miles between Escondido Creek and potential accessway at 26834 Malibu Cove Colony Drive. 0.4 miles from there to 26520-26524 PCH.
Corral Beach	None required on private properties.	Corral Beach (a subset of Dan Blocker).	26168 PCH opportunity, Dan Blocker Beach	No	Moderate	Although Dan Blocker Beach is in public ownership, a portion of it is not open to public use.
Amarillo	1 vertical per 1,000 feet.	Three open accessways: 25118, 24714, and 24602 Malibu Road.	None	No	Low	0.5 miles between 25118 and 24714 Malibu Road. 0.15 miles between 24714 and 24602 Malibu Road.
Malibu Beach	1 vertical per 1,000 feet seaward of and fronting on Malibu Road.	Two open accessways:24 434 and 24318 Malibu Road	None	No	Low	0.2 miles between open accessways
Carbon Beach	1 vertical per 1,000 feet	One open accessway: 22670 PCH (Zonker Harris).	Opportunities at 22814, 22626, 22466, 22126, 22032, and 21554 PCH	No	High	3 miles from Zonker Harris to next open accessway at 20350 PCH (Moonshadow s).
La Costa-Las Flores	1 vertical per 1,000 feet	None	Two opportunities, both at 21202 PCH.	No	High	
Big Rock	1 vertical per 1,000 feet	20350 PCH (Moonsha-dows) and 20000 PCH.	20802 PCH	No	Moderate	

Beach Name	Suggested Minimum Vertical Accessway Spacing	Existing Access	Access Opportunities	Access Maximum?	Priority	Comments
Las Tunas	1 vertical or public view point per 1,000 feet	Las Tunas State Beach	Opportunities at 19016 and 19020 PCH.	No	High	0.4 miles from Las Tunas State Beach to 19016 PCH. 0.35 miles from 19020 PCH opportunity to Topanga State Beach.

IV. Methods of Analysis for Shoreline Armoring Assessment

ReCAP's objective was to evaluate what has happened over time as a result of implementing the Coastal Act policies on coastal shoreline armoring. This methodology section discusses the data, assumptions and methods that the ReCAP staff used to conduct this analysis. The first objective was to estimate the amount of armoring authorized by the Commission from 1978 and 1996. The second objective of the analysis was to estimate the amount of armoring that existed prior to issuance of the first coastal development permits (CDPs) for shoreline protective devices (SPDs). The third objective was to estimate the amount of beach area covered by pre-existing, authorized and unauthorized armoring. In all cases, the length of armoring refers to the linear extent of armoring along the shoreline.

A. Length of Armoring

Commission Approved Armoring: 1978-1996

The ReCAP main database identified all approved coastal development permits (CDPs) for shoreline protection devices (SPDs) from 1978 through 1996. The approved projects were mapped on a parcel based GIS. For the projects approved from 1986 through 1996, ReCAP staff examined engineering plans in the project application files to find the dimensions for approved SPDs including alongshore length, cross-shore width, and height. These dimensions were entered into the ReCAP seawall database. The dimensions for approximately 80% of the approved SPDs from 1986 through 1996 were found in the project files, and the total alongshore length of these SPDs could be calculated directly from this seawall database. For the remaining 20% of the SPDs and the approved SPDs from 1978 through 1985, the alongshore length of the SPDs was assumed to equal the width of the affected parcel(s). The width of the parcel(s) was then measured directly from the GIS parcel map. On Figures 4a – 4f, the parcels shaded gray with white dots represent all parcels with authorized SPDs.

Non-Commission Armoring: Aerial Photography Analysis

To estimate the linear extent of armoring existing prior to first SPDs authorized by the Coastal Commission, aerial photographs taken in March of 1978 were examined for the entire ReCAP project area. For each SPD identified on the aerial photograph, the following information was recorded: (1) type of SPD: revetment or vertical seawall; (2) type of property SPD protects: private, PCH, or other public facility; and (3) alongshore length of SPD in feet. This information was transferred to a GIS.

To estimate the length of armoring that was constructed after 1978 but which did not appear in the ReCAP database, aerial photographs taken in 1993 were examined for the project area. The same information listed above was recorded for any SPDs identified as being constructed after 1978 and which had no record in the database (this could include permits waived or exempted or unauthorized development). This information was transferred to a GIS.

In the City of Malibu portion of the study area, the majority of development constructed over sandy beach requires some form of engineering structure in front of or underneath the structure due to public health requirements for protection of septic system leach fields or for structural support for the roadfill directly behind the structure. Since a number of beaches were already almost completely developed before the Commission began issuing permits, staff wanted to estimate the linear extent of development directly over sandy beach. For the purposes of this project, staff assumed that a home over sandy beach employed some form of SPD or engineering structure and was considered armored. Aerial photographs taken in March of 1978 were examined to identify these continuous stretches of beachfront development. Oblique photographs taken in1986 were used to determine if the beachfront development was built over sandy beach. Once these stretches of beaches were identified, the linear extent of the development was measured on the aerial photo and mapped on a parcel based GIS.

The existing armoring in 1978, the armoring constructed after 1978 but without CCC approval, and the continuous stretches of development over sandy beach in 1978 are depicted on Figures 4a – 4f as a solid black line along the shoreline, labeled "Non-Commission Armoring."

B. Beach Acreage Covered by SPDs

As mentioned in Section I, the ReCAP seawall database contains the physical dimensions of about 80% of the SPDs approved from 1986 through 1996. Information was also collected on the type of SPD approved for each project in that time period. From ReCAP staff measurements of SPDs taken from the permit application files, an average width for revetments and vertical seawalls was calculated. In order to approximate the effect of SPDs on recreational sandy beach area, ReCAP staff used the average figure for SPD dimensions in calculating the amount of beach area effected by all SPDs approved. For all projects in which the SPD type was known, the alongshore length was multiplied by

the average width for that SPD type to determine the beach acreage covered. For the projects for which the SPD type was unknown (only 17%), the SPD was assumed to be a vertical seawall and the average vertical seawall width was used to calculate beach coverage.

C. SPDs by Type

As mentioned in Section I, project files were examined for permits authorized from 1986 through 1996. The project type was recorded for each authorized SPD, including the following: new structure, repair of existing SPD, replace, expand existing SPD, or unknown. About 20% of the authorized SPDs permit files did not identify the type of project and were therefore classified as "unknown."