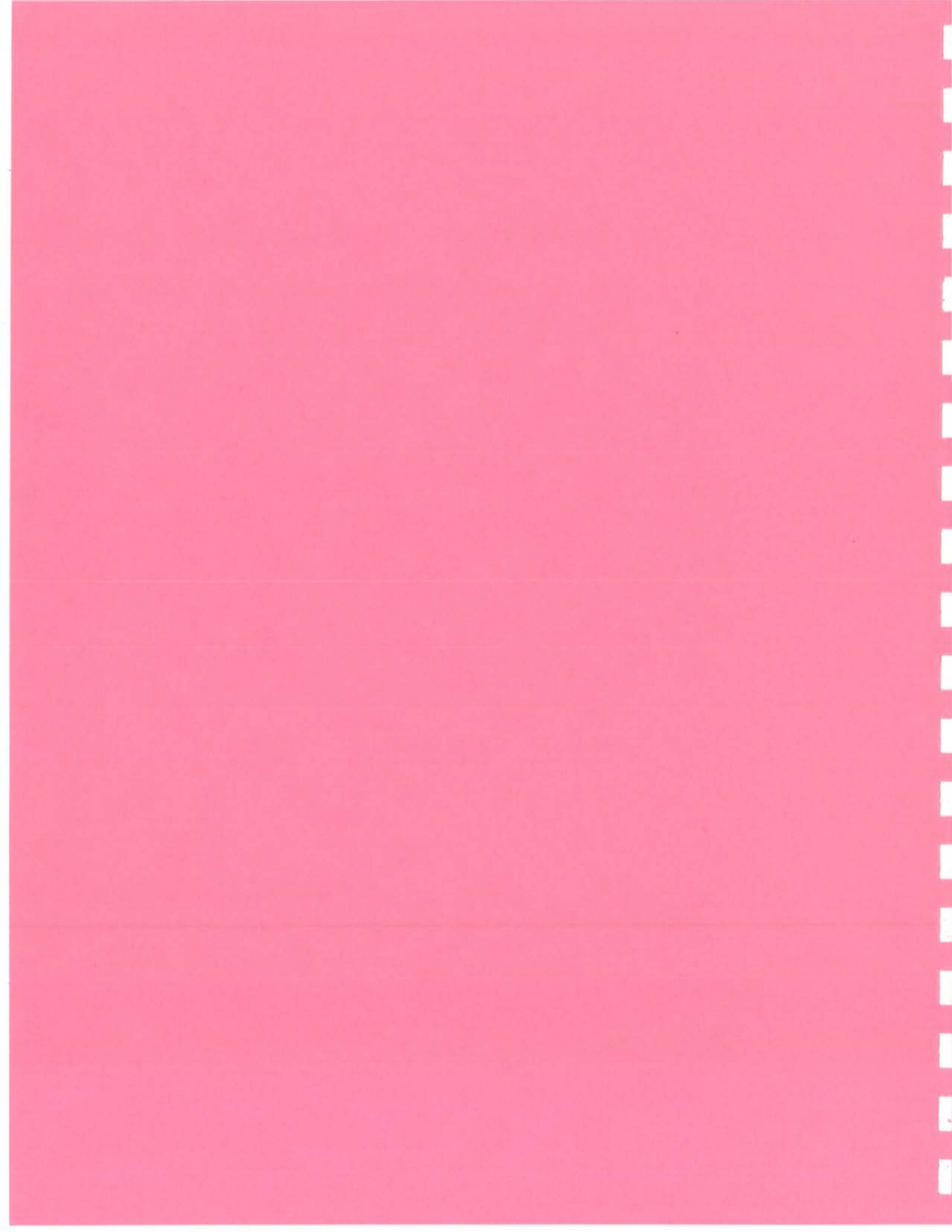


Paradise Ranch Estates Restoration Plan

April 1981



PARADISE RANCH ESTATES
RESTORATION PLAN

Approved by the
Marin County Board of Supervisors
May 26, 1981

Approved by the
Marin County Planning Commission
May 4, 1981

Prepared by Marin County Planning Department based on
First Draft prepared by The Planning Collaborative, Inc.,
with assistance from Recht-Hausrath & Associates and
State Coastal Conservancy Staff.

Prepared with financial assistance from the U.S. Office
of Coastal Zone Management, National Oceanic and
Atmospheric Administration under provisions of the Federal
Coastal Zone Management Act of 1972 as amended, and from
the California Coastal Commission under provisions of the
Coastal Act of 1976.



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SUMMARY

The purpose of this study is to evaluate the feasibility of and make recommendations for the involvement of the State Coastal Conservancy in a program to resolve environmental and developmental problems associated with the original subdivision of Paradise Ranch Estates. This study assessed the coastal resource conditions of the subdivision, the status of current and future development, and the consequences of full buildout, develops and evaluates consolidation projects appropriate for Conservancy action, identifies other measures applicable to the problems of the subdivision, and makes a recommendation for a Restoration Plan. The basic findings of the study are summarized below.

Potential Buildout. Future potential buildout has been greatly reduced by the combined effects of several factors including the existing County zoning and lot merger laws, lots owned by the Federal government, the Marin Municipal Water District, or other unusable lots. Out of the total 227 properties, 78 houses have been built; however of the remaining 149 unbuilt lots, only 92 or 62 percent have the potential to be developed. Development of these lots would result in a total development of 170 homes or 75 percent of the original total number of lots. Significantly, development of many of those merged and larger parcels would allow for retention of the remaining unbuilt portions of the lots in open space.

Cumulative Environmental Impact. To some extent, recent actions by the property owners and Marin County have acted to ameliorate potential cumulative impacts that could have resulted from additional development within the subdivision. These events include the recent rezoning and resultant merger of lots, which removes many of the most problematic lots in the subdivision and also reduces the full buildout. In addition, the North Marin Water District has recently completed the installation of a reliable water supply system to serve the subdivision.

The application of recently adopted County regulations, such as the Local Coastal Plan policy that precludes waivers of the septic ordinance except

in certain limited circumstances, and the design review guidelines proposed as part of this report will mitigate many of the potential adverse impacts of future development. However, there still remain lots that, even if developed under existing County regulations, could potentially have adverse impacts on water quality and visual quality. In addition, future development will add more traffic to the already hazardous road system.

Feasibility of a State Coastal Conservancy Development Consolidation.

The primary purpose of a Conservancy restoration project is to generate funds through development consolidation to purchase vacant lots in environmentally sensitive areas which may be retained in open space. The Conservancy emphasizes that a project break-even; that is, the dollar return to the Conservancy of selling a development project at the end of the restoration process should equal the total dollar cost incurred in planning, design and land acquisition. This study has made the following findings regarding a Coastal Conservancy Development Consolidation Project.

- a. The pattern of existing development, whereby roads and houses are evenly distributed throughout the entire subdivision, precludes opportunities for restoring major blocks of the subdivision to permanent open space;
- b. Development consolidation projects utilizing multi-unit housing type or commercial lodge type development were found to be infeasible for reasons of developmental, economic, and policy limitations;
- c. Vest-pocket housing projects which would consolidate development on a number of smaller sites were found to be technically feasible, but if developed at the same density as permitted by current zoning would not generate sufficient funds to pay for development costs or produce surplus funds to purchase poor development lots;
- d. Vest-pocket housing projects developed at greater density than permitted by current zoning would generate limited funds to purchase a few lots which might be left undeveloped, but would increase actual

total development of the subdivision by as much as eighteen additional dwelling units and could result in excess tree removal and other on-site impacts. The additional development would also add traffic to the substandard road system.

- e. The Reduced Density Lot Consolidation Project will mitigate many of the potential adverse impacts of additional development by removing many of the most troublesome lots and by further reducing the overall density of the subdivision. This project could result in a net cost to the Conservancy, depending upon the price that would have to be paid for lots.

Recommended Restoration Plan. This study recommends a Restoration Plan that is a combination of three approaches. The first is a reliance on the County's regulatory tools to mitigate some of the impacts of further development of the subdivision. The second facet is a reduced density lot consolidation project that would consolidate 24 lots into 11 lots. This lot consolidation project would include the development of a roadway and drainage improvement plan. The third facet of this Plan is the removal of troublesome lots from potential development through purchase. This would involve several strategies: the formation of a local land trust; an identification of any additional lots that may be suitable for inclusion within the park boundaries; and purchase of lands identified for inclusion within the parks, including those lots already authorized by the Federal government. The assistance of the State Coastal Conservancy will be necessary to implement these latter two facets of the Plan.

1.00 INTRODUCTION

1.10 PURPOSE AND SCOPE OF THE STUDY

By resolution, the Board of Supervisors of Marin County requested the State Coastal Conservancy (Letter November 25, 1978) to investigate the appropriateness of undertaking a restoration project at Paradise Ranch Estates Subdivision in Inverness, West Marin, (Figure 1) under the powers of the Coastal Conservancy. In doing so, the Board recognized that the Conservancy's unique capabilities could be applied to the environmental and developmental problems which have been the subject of past development controversy and are of concern in the formulation of the Marin County Local Coastal Program.

The State Coastal Conservancy, a companion yet separate agency to the State Coastal Commission, was created in 1976 by the State Legislature. The Conservancy was organized and empowered to deal with problems caused by inappropriate subdivision of land along the coast as well as to undertake resource protection and restoration projects. The powers available to the Conservancy in undertaking projects include powers of land acquisition and resale, powers of development, the ability to impose restrictions and easements which accompany the ownership of land, and similar capabilities. While typical Conservancy projects include the development of coastal access, trails, restoration of wetlands or other unique areas, harbor-related projects and the like, the agency's capabilities were intended to address the numerous problems along the coast of older inadequately platted subdivisions, which could cause severe environmental damage if fully developed.

Paradise Ranch Estates, finally established under court order in the late 1960's after years of complicated legal entanglements, was subdivided without due consideration for the rugged topography, steep slopes, potential for slope instability, requirements for adequate road access, water supply, and wastewater disposal. The potential environmental impacts of full development of the subdivision have been a concern of the County

REGIONAL LOCATION MAP

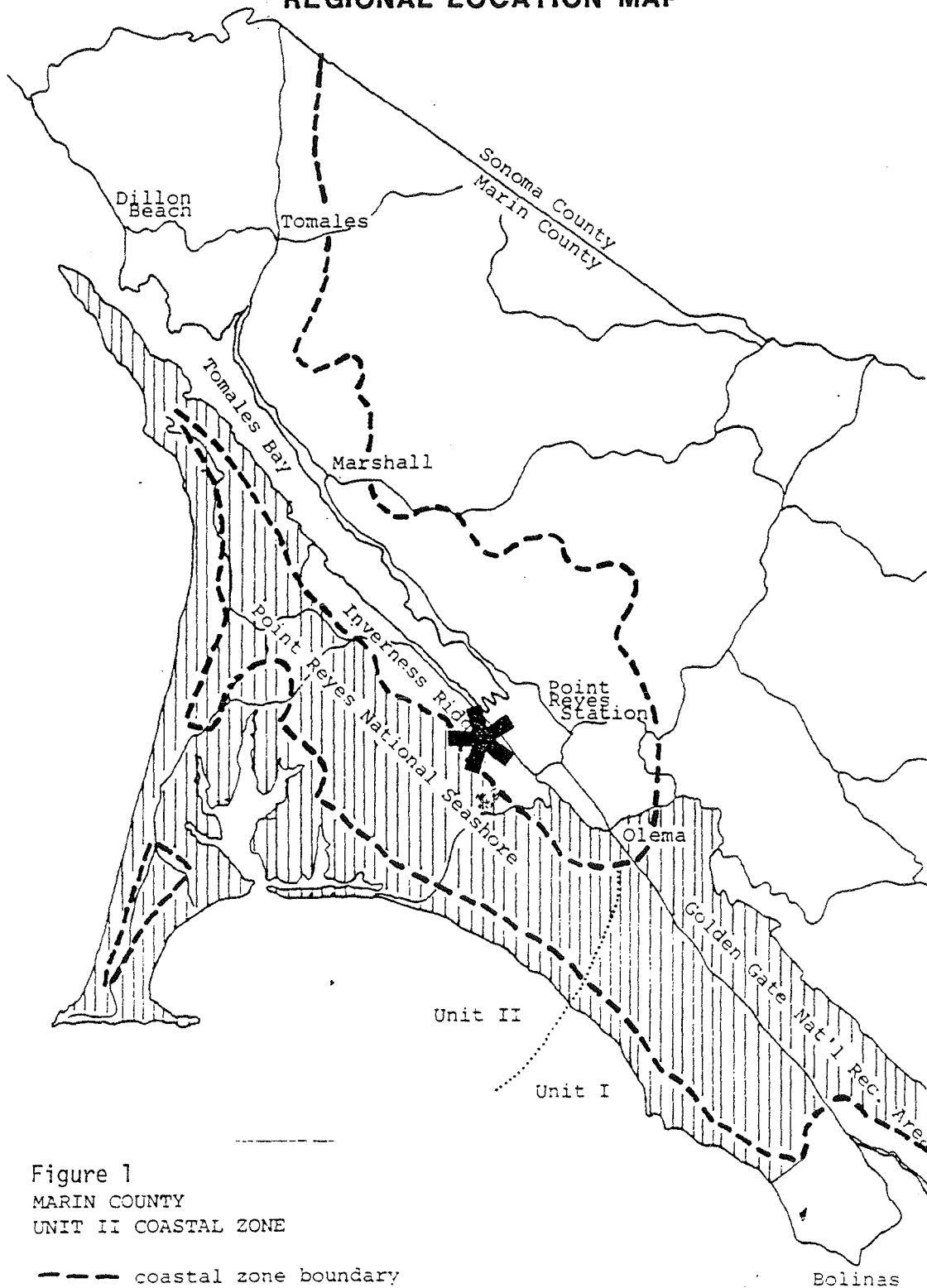


Figure 1
 MARIN COUNTY
 UNIT II COASTAL ZONE

- coastal zone boundary
- ▨ federal parklands

and the Coastal Commission for many years and the subject of a long history of developmental controversy. The action of the Board of Supervisors recognized the need to finally resolve development policy of Paradise Ranch Estates, as part of the Local Coastal Program and responded specifically to requests from the Paradise Ranch Estates Residents Association.

As a result, over the months following the Board's resolution, the Conservancy developed the work program for the study with the concurrence and approval of the Coastal Commission and established funding. The contract for the initial planning of a Conservancy study program, to be prepared by the County with the participation of the Conservancy and with funding from the Conservancy, was approved by the Marin County Board of Supervisors on August 26, 1980. In doing so, the Supervisors recognized that the study could result in "significantly revised land use, platting, and zoning recommendations in order to protect the public health, safety and welfare."

This report represents the results of that investigation. It includes an assessment of environmental and developmental conditions, the formulation of planning measures available to the Conservancy and County, the assessment of the development capability, economic, fiscal and implementation feasibility of planning measures, and an identification of available planning approaches. One plan approach is recommended to become the Restoration Plan for this area.

The investigation of environmental and developmental conditions was specific in scope. The assessment of local environmental conditions included the analysis of available geotechnic data to identify geotechnic hazards such as unstable soils and landslide areas which might limit construction feasibility, assessment of surface drainage conditions, topographic conditions, and the septic tank suitability of local soils. An on-site investigation was conducted of the lots judged by this study to have the most severe and serious limitations to development. A visual analysis

of the northwestern portion of the subdivision was also performed.

Assessment of development conditions was intended to determine how much development has taken place, and the potential for new development under existing zoning and lot merger laws of the County. Development limitations resulting from water supply, waste water disposal, and road access were reviewed as were zoning provisions and subdivision standards for the County.

1.20 STUDY RESPONSIBILITIES

This report represents the combined responsibilities of the Marin County Planning Department and the State Coastal Conservancy. Study responsibilities of the County, which were prepared under contract by The Planning Collaborative, Inc., included organization and administration of the study, the assessment of alternatives as to their environmental and developmental feasibility and the preparation of the Report. The economic and fiscal feasibility analysis portions of the study were prepared by Recht-Hausrath and Associates, consultants to the Conservancy; the legal and implementational aspects of the study were prepared by Conservancy staff. A limited investigation of roadway capacity conditions was prepared by the Conservancy. As a result of questions raised during the public hearing process, Marin County and Coastal Conservancy staff conducted a field reconnaissance of 43 lots, judged to be particularly constrained. The report prepared by the Consultant was revised to reflect new findings of the site-specific work. This final report is based on work done by the consultants, as revised by Marin County Planning Department staff.

1.30 PUBLIC PARTICIPATION

Property owners of Paradise Ranch Estates and other interested persons were invited to attend workshops with the planning team both at the outset of the study and toward the end of the study prior to completion of the study report. The intent of the initial meeting was to explain the study and to receive comment from property owners. Advice received at that meeting guided the conduct of the study. The intent of the second meeting was to explain the tentative findings of the study and to receive comment on those findings and additional information which could

have a bearing on study finalization. Attitudes and opinions expressed by property owners shaped the final preparation of the report. In addition, numerous public hearings on the plan text were held before the Marin County Planning Commission and Board of Supervisors.

1.40 GUIDING PRINCIPLES OF THE STUDY

As a result of the initial meeting with property owners, several principles were established to guide the conduct of the study, according to the concerns expressed by the public. The long history of building moratoria, uncertainty over future development, the personal drain of continued community meetings, concern over the potential unmanageable monetary and legal magnitude of some solutions, argued for two guiding principles: (1) plans be reasonable and practical, and thus capable of implementation, rather than theoretical or beyond acceptable economic means; (2) plans promote action and resolution of problems rather than promote continued delays. Underlying the above, the guiding principles of the study require: (3) that planning approaches be consistent with and promote the goals of the County's Local Coastal Program and the Inverness Ridge Communities Plan; and (4) that plans be feasible and meaningful to justify state Coastal Conservancy participation.

2.00 ENVIRONMENTAL AND DEVELOPMENTAL CONDITIONS

2.10 INTRODUCTION

The magnitude of the full development of Paradise Ranch Estates and the possible impact of additional development on the coastal resources of the subdivided lands have been the major questions at the heart of the past development controversy. The first step in the study process requires a systematic evaluation of the status of all properties and the limitation and impact sensitivities of environmental conditions. The purpose of these investigations was to determine how much development has taken place and can take place in the future, what properties were subject to the proposed Federal Acquisition program, what were the coastal resource characteristics which were of concern in terms of the possible impacts of development, and what might be the ultimate effects of full development.

These investigations were intended to identify sensitive areas which might be considered for purchase, guide consideration of sites for prospective development consolidation projects of the State Coastal Conservancy, and contribute to the evaluation of restoration project feasibility. The results of these studies are presented below.

2.20 POTENTIAL FOR DEVELOPMENT

Development potential was calculated under the existing RSP-0.25 County zoning regulations and the status of merged lots under Section 20.08.028 Merger of Lots, an Amendment to Title 20 (Subdivisions) of the Marin County Code, passed and adopted by the Marin County Board of Supervisors July 17, 1979.

The merger ordinance provides that all contiguously owned, unimproved lots (or lots where one is improved and the other is not) merge if the lots were created by parcel map or subdivision, if not held by the original subdivider, and if lot size does

not conform to zoning. Pursuant to State Law, the County is proceeding with formal notification of merger status to all affected landholders, providing a thirty day period of return notice for verification and/or changes. Figure 2, Parcels Merged under County Ordinance, shows those lots merged under the above ordinance.

The remaining potential for new development was calculated by removing from development consideration the following lot categories: (1) all lots with existing dwelling units (and including any merged parcels); (2) water tank lots owned by the North Marin County Water District; (3) lots presently owned by the U.S. Government; and (4) substandard lots, including lots so critically undersized or cut off from potential access as to prohibit development consideration. (See Figure 3, Lots without Further Development Potential). This number was then subtracted from the total number of properties at Paradise Ranch Estates as shown below:

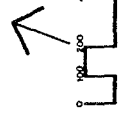
Total Properties		227
Less:		
Existing Dwelling Units	78	
Watertank Lots (NMCWD)	5	
U.S.A. Lots	10	
Substandard Lots	<u>6</u>	
Subtotal	99	<u>-99</u>
Remaining Unbuilt Lots		128
Potential New Dwelling Units		92

The number of potential new dwelling units on these remaining unbuilt lots was derived from study of merger status. Of the one hundred and twenty-eight (128) unbuilt lots, it was found that under existing merger and zoning, buildout potential stood at ninety-two (92). Figure 4, Status of Properties, identifies and locates these parcels. It is to these ninety-two building parcels that the environmental criteria have been applied.



Figure 2
**PARCELS MERGED BY
 COUNTY ORDINANCE**

PREPARED WITH FINANCIAL ASSISTANCE FROM THE U.S. DEPARTMENT OF AGRICULTURE, NATIONAL COASTAL RESTORATION PROGRAM, UNDER AUTHORITY OF THE FEDERAL COASTAL ZONE MANAGEMENT ACT OF 1972 AND THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972. THIS MAP IS UNDER PROVISIONS OF THE COASTAL ACT OF 1972.



**PARADISE RANCH ESTATES
 COASTAL RESTORATION PLAN**

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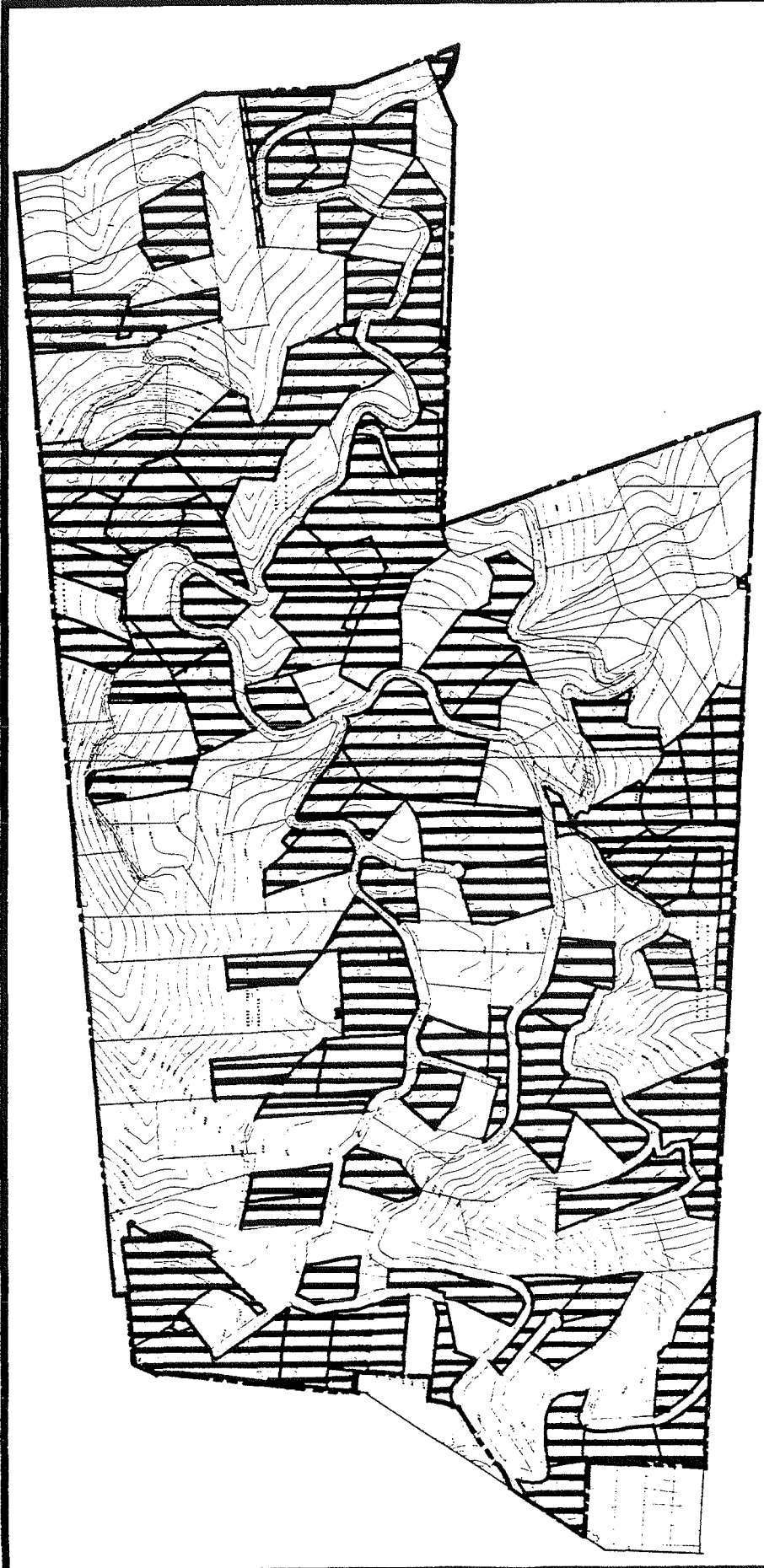
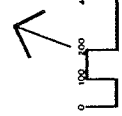


Figure 3
**LOTS WITHOUT FURTHER
 DEVELOPMENT POTENTIAL**



**PARADISE RANCH ESTATES
 COASTAL RESTORATION PLAN**

PREPARED FOR MARIN COUNTY
 THE PLANNING COLLABORATIVE
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 WWW.THEPLANNINGCOLLABORATIVE.COM

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2.21 Federal Land Acquisition

Federal legislation provides for the acquisition of properties on the southern, western, and northern boundaries of the subdivision. The U.S. Congress has approved P.L. 96-199, authorizing twenty-eight (28) Assessor's Parcels on the southern and western boundaries of Paradise Ranch Estates for inclusion in the Point Reyes National Seashore. At various times from four to 13 lots on the northern section of the subdivision have been proposed to be included in the park boundaries. At the present time (April 1981) the status of these lots is undetermined.

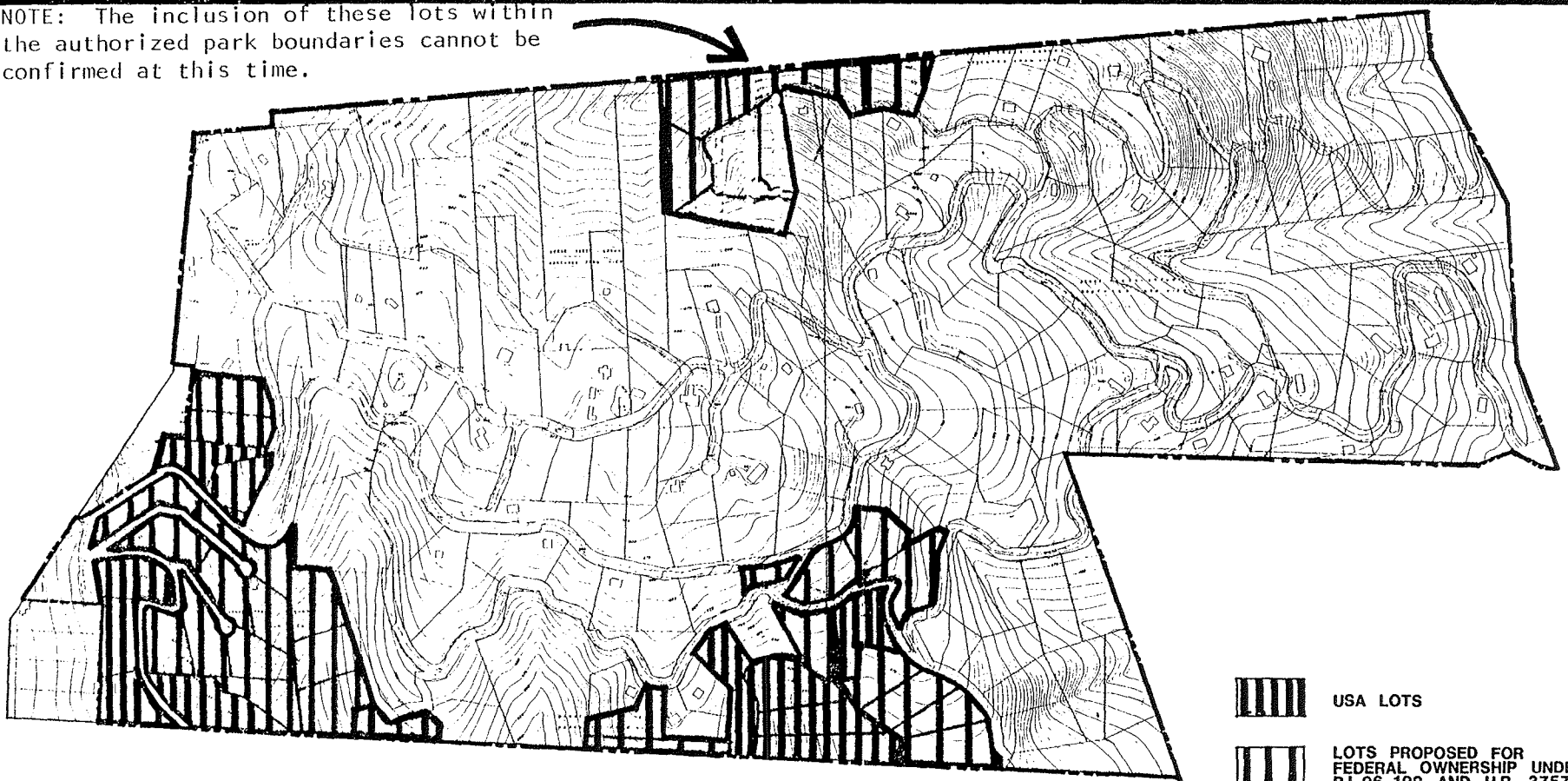
Figure 5 shows the location of parcels proposed for federal acquisition. All of these lots have been included in the environmental analysis.

Funding for further park acquisition has been frozen. However, there is presently no intention of removing lots from the authorized park boundaries.

The bill (P.L. 96-199) that included the parcels on the south and west sides of the subdivision within the park boundaries contains a provision that would allow owners of properties, which on May 1, 1979 were developed, to obtain a "reservation of use or occupancy" from the National Park Service for their lifetime or for a term of up to 25 years. Therefore, if a presently vacant parcel were developed, the property owner would be entitled to receive fair market value for the property at the time of any future acquisition by the National Park Service, which would include both the land and the structure, but would not be eligible for a reservation of use or occupancy (Haberlin 1981).

The effect of the Federal acquisition proposal on the number of "Potential New Dwelling Units" at Paradise Ranch as determined above, and ultimately on Total Buildout Potential is given below. It was found that twenty-two (22) potential new dwelling units would be eliminated by Federal acquisition, thus reducing the total number of Potential New Dwelling Units at the subdivision from ninety-two (92) to seventy (70). Total

NOTE: The inclusion of these lots within the authorized park boundaries cannot be confirmed at this time.





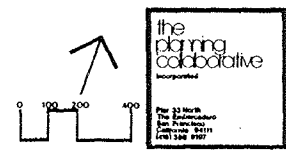
-  USA LOTS
-  LOTS PROPOSED FOR FEDERAL OWNERSHIP UNDER P.L.96-199 AND H.R. 3757

Figure 5
PROPOSED FEDERAL ACQUISITION

NOTE: Prepared with financial assistance from the U.S. Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under provisions of the Federal Coastal Zone Management Act of 1972 as amended, and from the California Coastal Commission under provisions of the Coastal Act of 1976.

PARADISE RANCH ESTATES COASTAL RESTORATION PLAN



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buildout potential then stands as follows based on these assumptions:

Lots Proposed for Federal Acquisition	33	
Potential New Dwelling Units Eliminated by Federal Acquisition	22	
Potential New Dwelling Units with Federal Acquisition (92-22)		70
Total Buildout Without Federal Acquisition (78+92)	<u>170</u>	
Total Buildout with Federal Acquisition (78+70)		<u>148</u>

2.30 ENVIRONMENTAL CONDITIONS

The coastal resources of Inverness Ridge have been a primary concern of coastal conservation and development policies of the County and the Coastal Commission for several years. Of special concern have been the water-related resources, which might be affected by development-related activities such as grading or septic systems, and those geotechnic factors which might constitute a safety hazard or threat to continued development on the Ridge. These environmental factors have been evaluated by this study in terms of their sensitivity to the impacts of new development and in terms of the limitations they impose on additional development.

Paradise Ranch Estates enjoys a spectacular coastal setting. The terrain is steep and rugged, underlain by granitic bedrock which fosters steep ravines and drainage channels which drop off abruptly in to Fish Hatchery Creek canyon to the south and into Tomales Bay to the east. Inverness Ridge is heavily wooded, primarily by Douglas Fir, Bishop Pine, California Bay, Tan Oak and Live Oak.

The uplands of Paradise Ranch Estates drain to Tomlinson Creek to the north and to Fish Hatchery Creek to the south. Ultimately both streams, as well as the eastern portion of the subdivision drain to Tomales Bay. The Bay is an important and sensitive ecological system supporting a significant waterfowl and fish population; its southern end has been designated an ecological reserve by the State Department of Fish and Game.

This environmental evaluation of Paradise Ranch Estates is based on a compilation of all available environmental data and has greatly benefited from recent detailed soils and geotechnic studies of Inverness Ridge as acknowledged below. The analysis identifies the most significant environmental concerns which are relevant to the issue of further development and formulates review criteria which were employed to rate all properties according to the number of environmental and developmental limitations present.

Various environmental and development factors are discussed below. These are: geotechnic factors, watershed sensitivity, water supply, septic systems, and roadways. Each unbuilt lot in the subdivision was ranked as to how it was affected by each of these criteria. An assessment of the total effects of all of these factors on the degree of developability of each lot was prepared based on the following analysis. This assessment is found in Section 2.50, Environmental Assessment of Unbuilt Lots.

2.31 Geotechnic Factors.

Slope stability problems and seismic safety hazards are commonplace in Western Marin County. The physical characteristics of the granitic bedrock underlying the eastern flank of Inverness Ridge and the dense vegetative cover on steep slopes typical of Paradise Ranch Estates provide a somewhat distinctive geotechnical setting with significant, although not hazardous implications for development in the area.

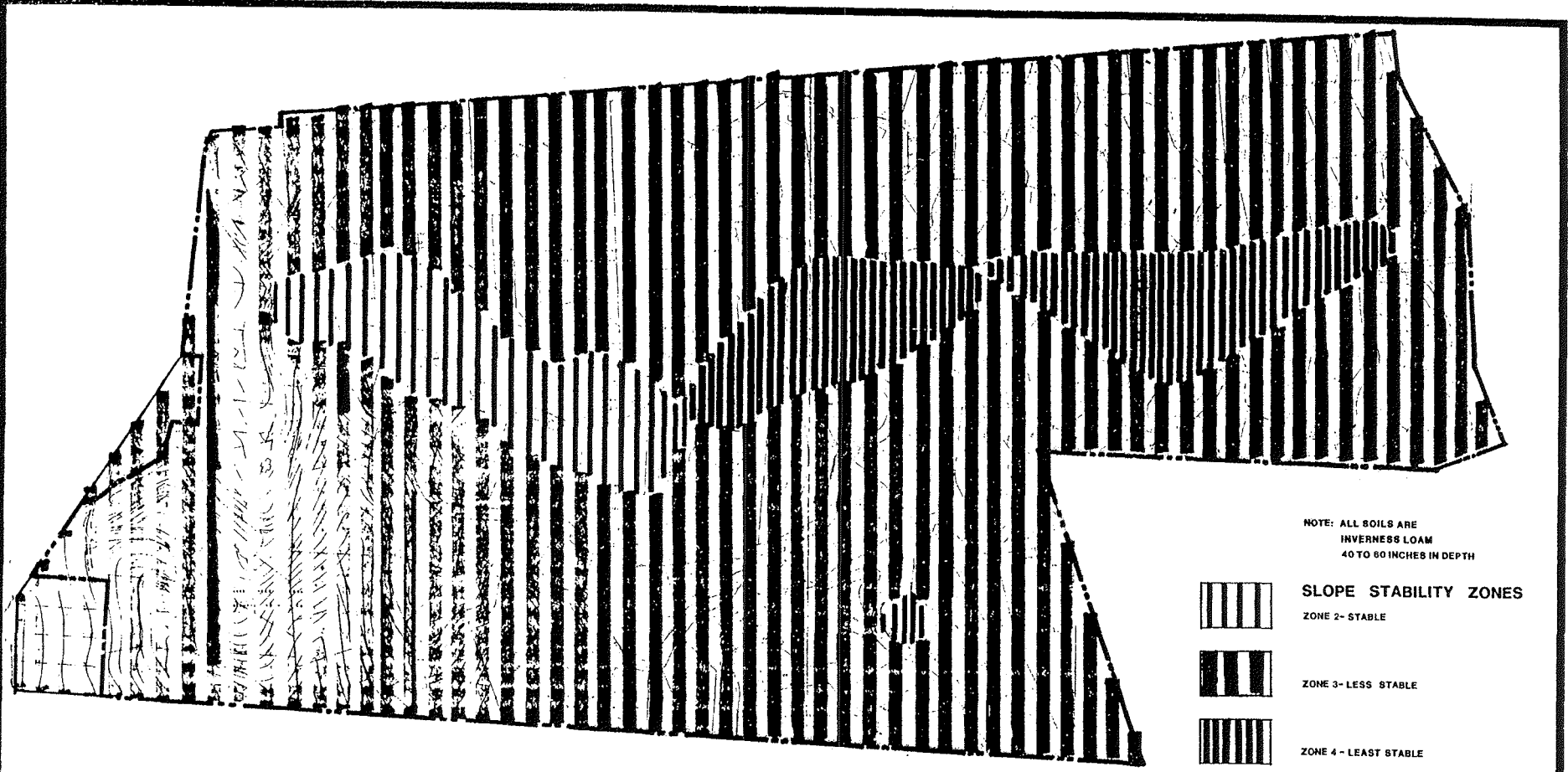
Seismic activity in the western part of the County is primarily related to the San Andreas fault zone which runs north from Bolinas Lagoon along the eastern portion of Inverness Ridge to and through Tomales Bay. Although Paradise Ranch Estates is located within the Alquist-Priolo Special Studies Zone (lying approximately 1800 to 3400 feet from the fault line) the subdivision is not considered prone to significant earthquake hazard for the following reasons:

(1) The underlying granitic bedrock (Quartz diorite-Kgr) is not subject to severe ground shaking, the most widespread and destructive aspect of earthquakes, despite its relative proximity to the San Andreas fault;




(2) although a few surface fault ruptures occurred in the Inverness Ridge area during the 1906 earthquake, these were not major and do not presage the occurrence of future fractures within the same areas; and

(3) due to the nature of the underlying bedrock and to the elevation of the subdivision, there are no recognized liquefaction or tsunami hazards within Paradise Ranch Estates (Wagner, Geology for Planning in Western Marin County, California (1977) and Telephone Conversation, David Wagner, October 3, 1980). Accordingly, the present study has focused on the slope stability problems of the Inverness Ridge area which may present potential hazard to future development.

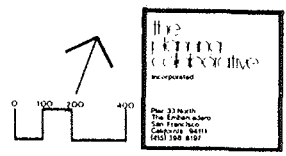
The granitic-derived soils and granite sub-base present a range of potential slope stability problems within Paradise Ranch Estates. Figure 6, Geotechnic Factors, indicates those areas of relative slope stability within Paradise Ranch Estates as identified by the 1977 Wagner and Smith study ("Slope Stability of the Tomales Bay Study Area"). Zone 4 represents the least stable category and includes those areas suspected of past landslide activity, whether presently active or not, and slopes with significant evidence of downslope creep of surface materials. The Wagner and Smith study notes that these zones should be considered "naturally unstable" and subject to potential failure even in the absence of man's activities and influences. Zone 3 indicates those areas where the steepness of the slope approaches the stability limits of the underlying decomposed granite; most of Paradise Ranch Estates lies within this category. Although not considered naturally unstable, these areas may be subject to slide conditions particularly where the following occur: disturbance or removal of the dense, anchoring vegetative cover, and/or oversaturated ground conditions which may cause lubricated soils to slide. Both of these conditions may be aggravated by



NOTE: ALL SOILS ARE
INVERNESS LOAM
40 TO 60 INCHES IN DEPTH

- SLOPE STABILITY ZONES**
-  ZONE 2 - STABLE
 -  ZONE 3 - LESS STABLE
 -  ZONE 4 - LEAST STABLE

PARADISE RANCH ESTATES COASTAL RESTORATION PLAN



The Planning Collective
Incorporated

The Planning Collective
Incorporated
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(415) 760-8100

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**Figure 6
GEOTECHNIC FACTORS**

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development construction and related activities including the removal of vegetation over the septic leaching field. The role of the thick vegetative cover of the subdivision is extremely important in stabilizing the soils and friable sub-base, particularly on the steep slopes of the subdivision.

Thus, the geotechnical studies mentioned above emphasize the need for strict grading regulations on steep and wooded slopes, removal of vegetative cover only as necessary, and careful engineering of any additional roadcuts. Finally, Wagner (1977) has recommended that complete geotechnical investigations be required prior to tentative map approval of development in Zones 3 and 4. (There is only one area of Zone 2 stability in the subdivision; this is an area where narrow ridge and spur crests underlain by relatively competent bedrock are less susceptible to slide activity.)

A map prepared by the Department of Water Resources (DWR) in July 1978 identifies a potential third landslide in the northwest section of the subdivision. This mapping by DWR included a wider area than that studied by Wagner. This formation appears to lie well below Roberts Drive, down in the canyon and below any logical building sites. In addition, it appears that one existing house may be entirely within the landslide deposit as well as a portion of a built lot. Since this area is already designated as Zone 3, the recommendations of this report would require engineering studies at the time a development application is received by Marin County. These site-specific studies can verify the extent and location of the potential landslide and provide information on location or engineering of structures to mitigate effects of the potential instability area.

Slopes greater than 30% were overlain areas designated in Zone 3 to reflect the role of slope steepness in contributing to instability problems. Information on slope conditions was derived from a slope analysis based on a 5 foot contour interval topographic map for the subdivision.* The greater than 30 percent slope factor was selected as contributing to potential instability as it reflects the natural stability of slopes

* The slope condition map is available for reference at the County Planning Department.

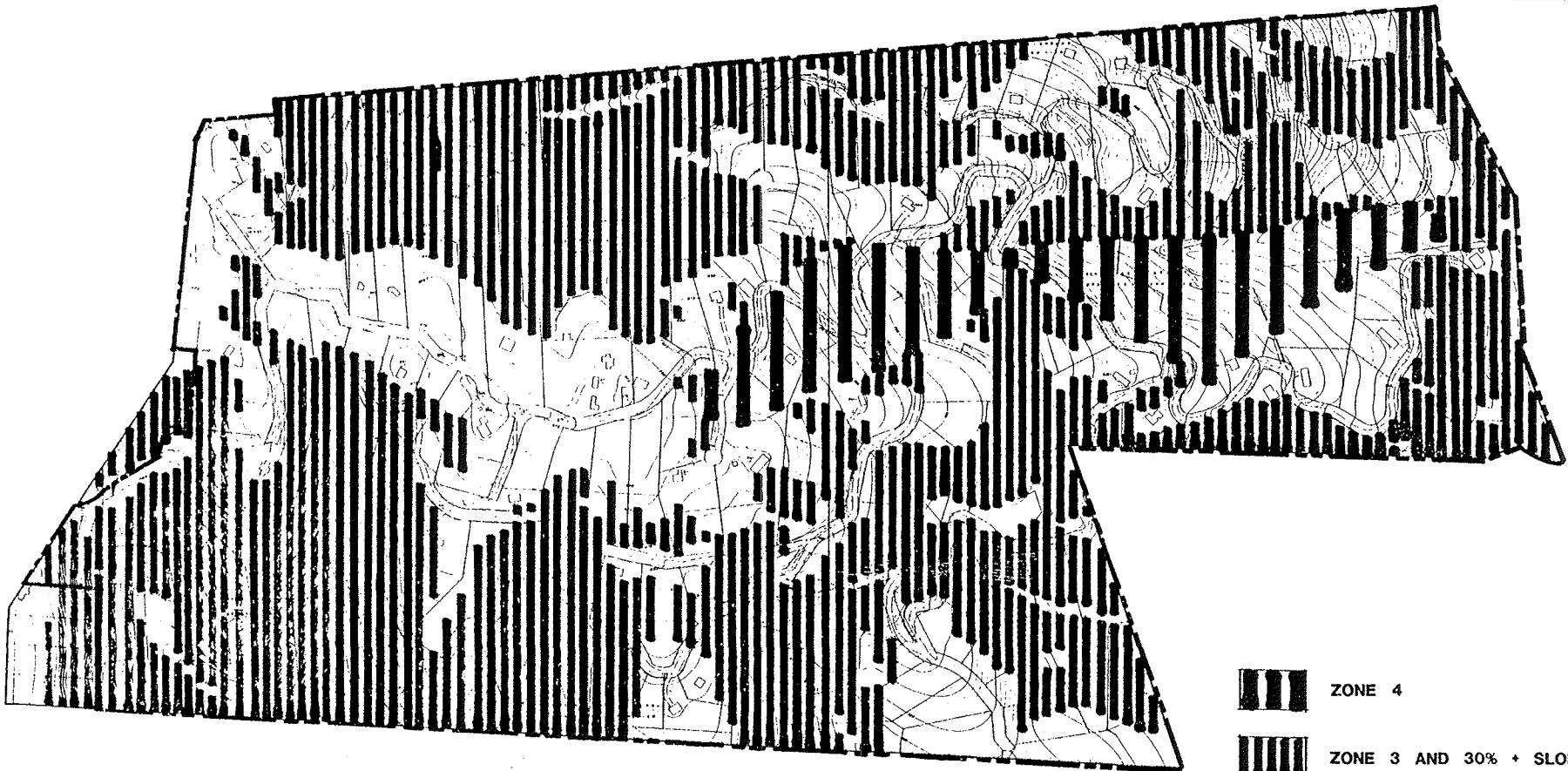
in the San Francisco Bay area (generally, most landslides occur on slopes greater than 27 degrees; few landslides occur on slopes 9 to 27 degrees; and almost no slides occur on slopes less than 9 degrees, Wagner, 1977).

Figure 7, Potential Instability Problems, illustrates the two categories judged potentially significant in affecting the development capability of those undeveloped lots at Paradise Ranch Estates: (1) areas of Zone 4 category as described above, where evidence of past landslide activity exists; and (2) areas of greater than 30 percent slope lying within Zone 3.

2.32 Watershed Sensitivity

The water and watershed resources of the Point Reyes and Inverness Ridge area have been long recognized as sensitive coastal resources. Of particular concern are the potential impacts of further development on the wildlife and fishery habitat of the adjacent streams, and on the water quality of both groundwater and streams in the vicinity, and of Tomales Bay.

General hydrologic conditions of Paradise Ranch Estates are indicated on Figure 8. The uplands of Paradise Ranch Estates drain into three watersheds, whose drainage areas are approximately equal in area. Roughly the eastern third of the subdivision drains directly into the southern end of Tomales Bay across Sir Francis Drake Boulevard. The northern portion of the site from Drake's View Drive ridgeline, drains northward into Tomlinson Creek, and eventually into Tomales Bay. The southern portion of Paradise Ranch Estates drains from the upper ridgeline into four steeply wooded ravines which form the headwaters of Fish Hatchery Creek, a perennial stream emptying into the southern end of Tomales Bay. Preservation of Fish Hatchery Creek has been long recognized as one of the primary ecological concerns of the area. A private fish hatchery was once operated on the creek; the Inverness Ridge Communities Plan (1979) notes the potential for steelhead spawning on the creek,

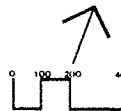


ZONE 4



ZONE 3 AND 30% + SLOPES

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770 233006
The Promenade
Suite 2011
280 300 8707

Figure 7
POTENTIAL INSTABILITY
AREAS

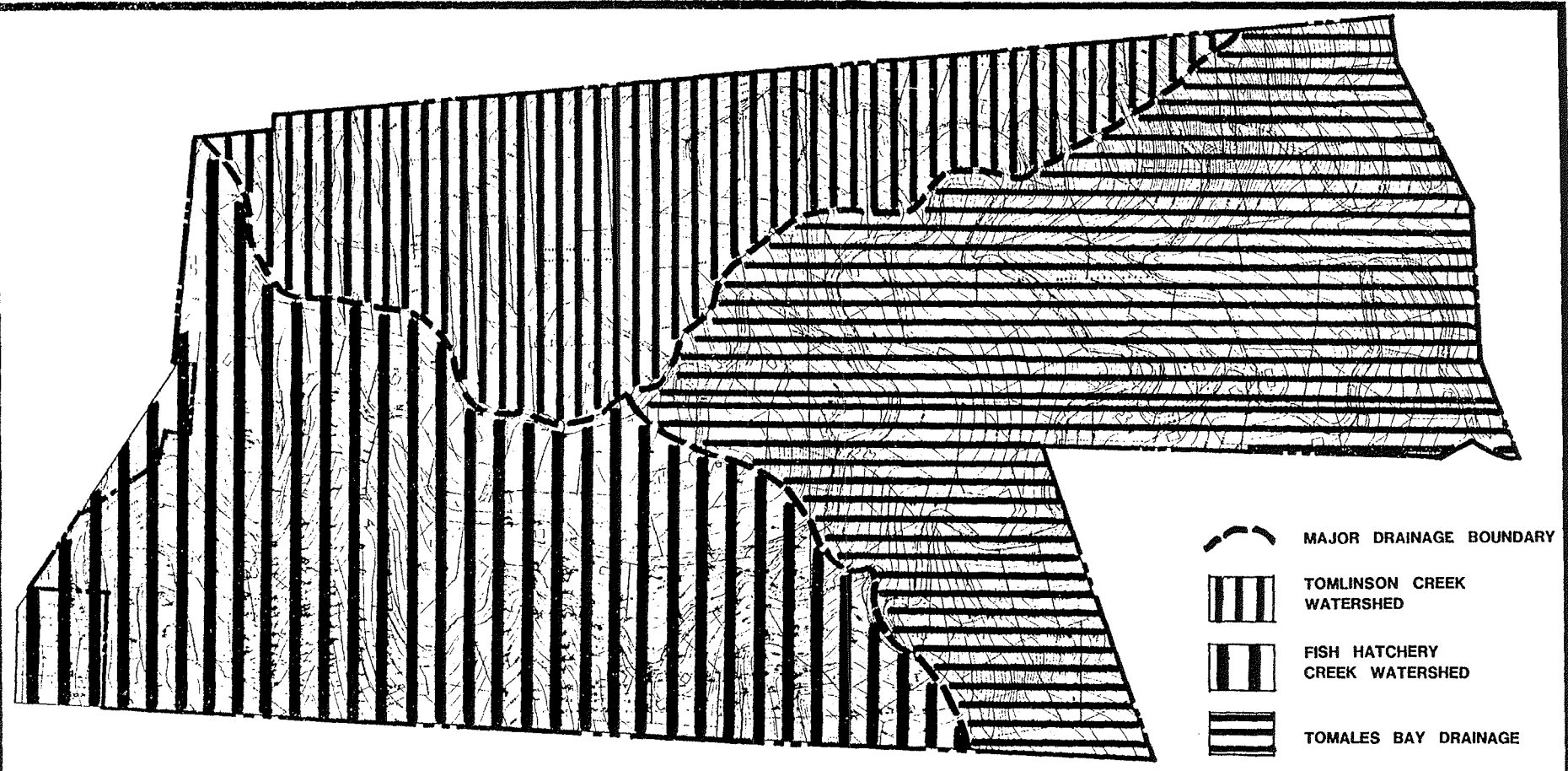
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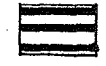
Prepared with financial assistance from the U.S. Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under provisions of the Federal Coastal Zone Management Act of 1972 as amended, and from the California Coastal Commission under provisions of the Coastal Act of 1976.

area

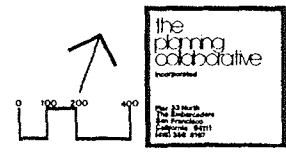


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-  MAJOR DRAINAGE BOUNDARY
-  TOMLINSON CREEK WATERSHED
-  FISH HATCHERY CREEK WATERSHED
-  TOMALES BAY DRAINAGE

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**Figure 8
HYDROLOGIC FACTORS**

note

collected with permission 1981 to '84 from the U.S. Office of Coastal Zone Management, National Oceanic & Atmospheric Administration, under provisions of the Federal Coastal Zone Management Act of 1972 as amended, and from the California Coastal Commission under provisions of the Coastal Act of 1975.

and as recently as March 1979, a field survey by the California State Department of Fish and Game identified a viable Rainbow trout population in the stream. Although some siltation has occurred in the stream bed, the major liability for its continued existence as a spawning stream appears to be the lack of deep pools, a natural occurrence. (Telephone conversation, November 12, 1980, Fred Botti, Department of Fish and Game.)

Siltation and the actual physical disturbance or removal of riparian vegetation are the major problems threatening the habitat potential and water quality of both Fish Hatchery Creek and Tomlinson Creek. Normal erosion rates for the Inverness area are calculated at approximately 300-400 tons per square mile per year, considered a rather slow natural erosion rate. (Inverness Ridge Communities Plan 1979). Erosion rates can be accelerated by vegetative removal and soil disturbance caused by poor development practices and can be excessive on steep slopes.

At present, the existing dense vegetative cover and natural drainage patterns of the unbuilt portions of the subdivision protect these watersheds from significant erosion and siltation damage. The siltation and damage to riparian conditions which has occurred to date is largely a result of the initial construction of the roadways of the subdivision, continuing erosion of unpaved road surfaces, and actual disturbance along the creekbed itself, not associated with the subdivision. (Telephone conversation, Fred Botti, November 24, 1980).

For the purposes of this study (given potential habitat and streamflow conditions) the Fish Hatchery Creek and Tomlinson Creek watersheds were judged to be of greater environmental sensitivity than the East slope watershed area. Disturbance of vegetation or soils on any slopes over 40 percent within these two watersheds is considered to be of potentially harmful environmental consequence to streamshed and riparian conditions.


This condition, indicated as "Watershed Sensitivity: Slopes over 40 percent within Fish Hatchery and Tomlinson Watersheds" on Figure 9, is one of the Development Constrains Criteria. The drainage on the eastern slope of the subdivision was considered less sensitive because of the absence of significant riparian habitat conditions.

The watershed sensitivity portion of the environmental conditions analysis focuses solely on the aquatic habitat values of the streams within the subdivision. Other components of the environmental analysis deal with such questions as the presence of landslides, classifications of areas of slope instability, septic tank capability, steep slopes, and the like throughout the subdivision. The watershed sensitivity analysis, on the other hand, was concerned with the streamways which are valued as significant aquatic habitats and the role of the surrounding watershed lands in contributing to potential impacts.

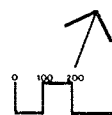
Only Fish Hatchery Creek has been identified in the past as having significant fisheries habitat. Reference to Fish Hatchery Creek is contained in the Inverness Ridge Communities Plan, the Marin County Local Coastal Plan, documents of the Coastal Commission, and studies of the Department of Fish and Game. Fish Hatchery Creek is indicated on the U.S.G.S. 7.5 minute quadrangle (Inverness, CA.) as an intermittant rather than perennial stream, as is Tomlinson Creek to the north of the subdivision. The drainages on the east slope of the subdivision are not rated by U.S.G.S. as being either perennial or intermittant. However, evidence presented by residents of the area suggests that the Central Watershed may be a year-round stream.

Therefore, for purposes of constraints analysis, the Central Watershed is not included, since to do so would essentially eliminate watershed sensitivity as a criteria. However, the policies recommended in the Design Review Section of this text would require that future development meet the criteria for blue line streams in the Local Coastal Plan for Unit II.



 40% + SLOPES
IN FISH HATCHERY AND
TOMLINSON WATERSHEDS

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Figure 9
WATERSHED SENSITIVITY

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DATE	AREA

The threat of septic tank effluent pollution to either Tomales Bay or to the two tributary watersheds has been adjudged not to be significant because of the excellent wastewater purification characteristics of the Inverness soil series and the more than adequate soil cover of the Paradise Ranch Estates.

2.33 Visual Resources

A visual analysis of the lots on the northwest side of the subdivision was performed. For the most part the visible lots are those that obtain access from Upper Roberts Road and Pine Crest Drive, although some lots with access from Drakes View Drive and other streets are visible. The purpose of the visual analysis was to evaluate the degree of visibility of existing and future development from the adjacent parkland and to assess the impact the existing and future development might have on park users.

The Paradise Ranch Estates subdivision is bounded by parkland on three sides. The southwest and western boundary of the subdivision abut the Point Reyes National Seashore. The northern side of the subdivision is bounded by the Tomales Bay State Park. While this state park land has been authorized by the Federal Government for inclusion into the Point Reyes National Seashore, it appears that this transfer of jurisdiction will not occur in the near future.¹ It is the viewshed from the Tomales Bay State Park that was the subject of this study.

It should be noted that areas in the south and west side of the subdivision are visible from Point Reyes National Seashore. These areas, which are in a different type of viewshed than that described below, were not included in this visual analysis.

¹Telephone communications with John Sansing, National Park Service, 3/12/78, and Jack Hessemeier, State Department of Parks and Recreation, 3/3/81.

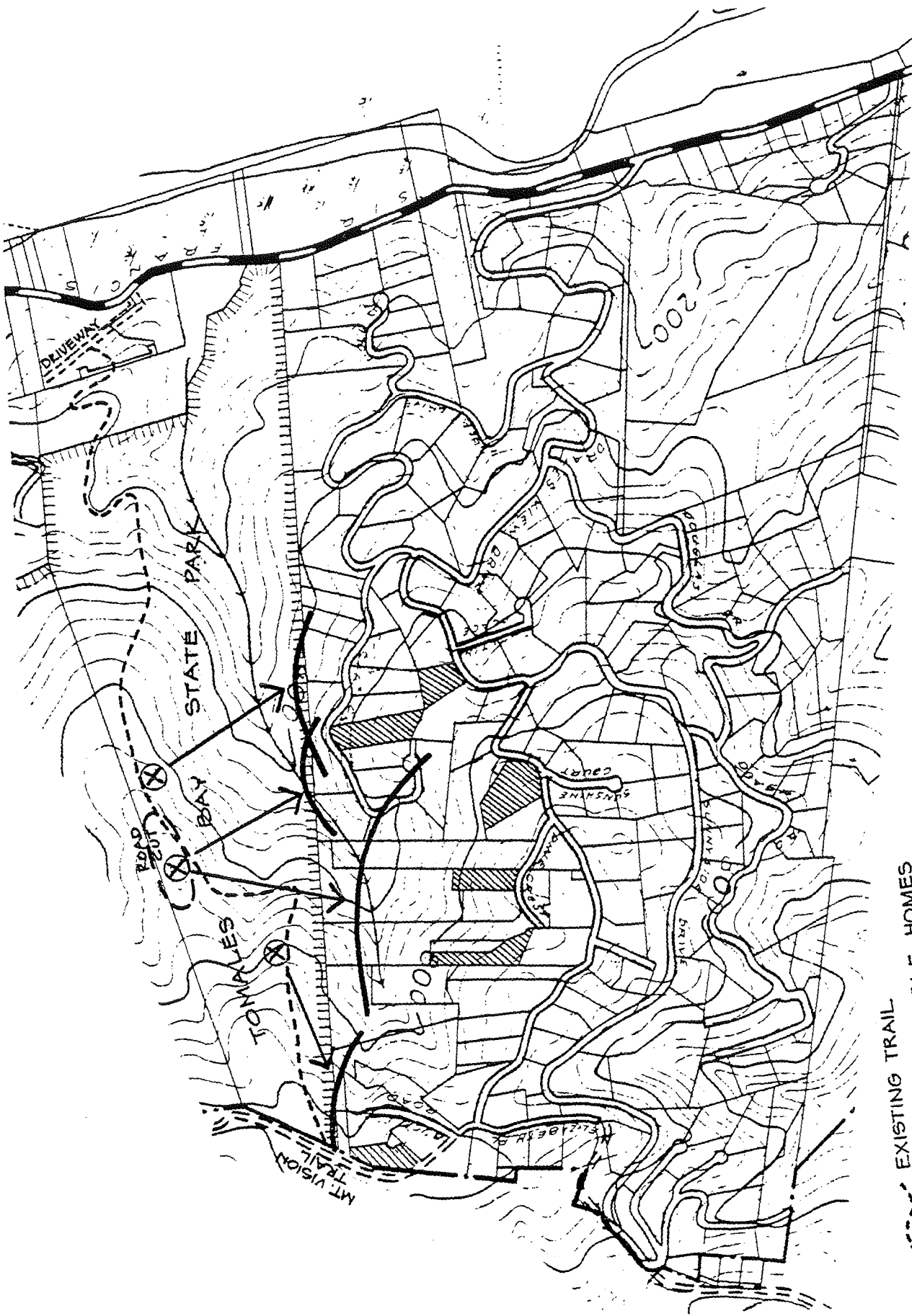
The visual reconnaissance consisted of two parts. The first was a cursory on-site evaluation of the type, size and condition of vegetation on the parcels on the northern side of the subdivision. The purpose of this assessment was to evaluate the potential for screening of any future development. The more important part of the reconnaissance was an off-site inspection, which consisted primarily of hiking the entire length of an existing ridge trail, as well as assessment from several other locations within the park.

Existing Setting. The Paradise Ranch Estates subdivision is located on a generally east-west trending ridge which rises from about the 40-foot elevation to 1000-feet. The adjacent Tomales Bay State Park is composed of several similar ridges. Because of the topography and heavy tree cover, the northern portion of the subdivision is visible only from the immediately adjacent ridgeline and the south facing slope of this ridgeline. Figure 10 shows areas of the subdivision which are visible from the adjacent park.

On the ridgeline there is an existing trail, which was partially formed by fill for a roadway. The trail is in good condition. It begins from the Mt. Vision trail that parallels the western boundary of the subdivision.

The western end of the trail runs through a thickly forested area, primarily composed of large pine trees. Throughout this area filtered views through the existing tall trees are available of the subdivision. A few homes are visible at widely scattered locations. The area of viewshed is primarily Upper Pine Crest; homes visible include Firth (AP #114-120-58). Generally, it is extremely difficult to see existing structures through the trees; in addition to the trees on the parkland, the buildings are screened by trees located on the individual properties.

About 1200-feet down the ridge (to the east) the trail shifts sharply to the north before regaining its easterly direction. At this point the trail enters an area of new and therefore smaller vegetation, consisting



- EXISTING TRAIL
 - ▨ EXISTING VISIBLE HOMES
 - ⊗ VIEWPOINT
 - ← VIEWSHED
- VISUAL ANALYSIS**

FIGURE 10

primarily of manzanita and young pine trees. There is a prominent area of fill, which apparently was placed for a road that was never completed. It is hypothesized that a substantial amount of vegetation was destroyed at the time that grading for this road occurred and that the area is being re-vegetated. The road cut is at the approximately 700-foot elevation.

From the road cut several homes in Paradise Ranch Estates are visible. To a large degree, the degree of visibility occurred because there are no large trees on the park trail at that location. From one location, three houses are visible at the same time; these are Hildreth (AP #114-100-05), Macey (AP #114-100-42), and Foote (AP #114-100-40). Although visible, these structures are screened by adjacent trees, and the tree cover behind the structures create a canopy of trees against the horizon. As one would expect, the lightest colored structure, Hildreth's residence, is much more apparent than Foote's, which is dark reddish-brown. In addition to these structures, the road cut for Upper Roberts Road and the distinctive vegetation on the end of this road are visible. The lots on the downhill side of Upper Roberts Road are not visible, because of the difference in elevation. If one were lower down on the slope of the ridge, the downhill lots on Upper Roberts Road would probably be visible, at least to some extent. Since it was impossible to reach this area, the degree of visibility is unknown. The upper end of Pine Crest is not visible from the road cut because of the topography.

After leaving the road cut, the vegetation again becomes tall, substantial pines and other trees. This vegetation allows filtered views of an isolated house, or at one point two houses, from various locations. These structures are difficult to discern, both because of tree cover in the subdivision and because of the trees adjacent to the trail. Houses visible from this area include Tardos (AP #114-100-76) and Ridge (#114-100-06).

At about the 300-foot elevation the trail winds to the northerly slope of the ridge, precluding further views of Paradise Ranch Estates. The trail eventually joins a private driveway leading to Sir Francis Drake Boulevard.

From various locations along the length of the trail the town of Point Reyes Station and farms across Tomales Bay are visible, with the grass covered hills in the background and Tomales Bay to the north. Therefore, the overall ambiance of the trail is not one of wilderness, but of a rural experience.

Effects of Further Development. If complete buildout of the subdivision as presently platted occurs, the northern section of the subdivision would contain substantial additional development. The Upper Pine Crest and Drakes View Drive area could contain approximately six additional homes. The Lower Pine Crest and Drakes View Drive area could contain about seven additional residences. Upper Roberts Road could contain 11 homes, in addition to the seven presently constructed. Six of these would be on the uphill side of Roberts Drive, while the remaining five would be on downslope lots.

All of these lots are a minimum of one acre in size, but the average width of the lots vary. The degree of visibility of future structures from the adjacent park will depend on several factors, including: siting, height, color, and presence of tree cover. Most of the lots along Pine Crest and Drakes View Drive contain substantial amounts of large trees. This, in conjunction with the fact that there are large trees which act as a visual buffer in the area of park land from which this section of the subdivision is visible, decreases the likelihood that new structures will be any more visible than those that presently exist. In addition, the topography and heavy vegetation in the park preclude seeing large areas of the subdivision at the same time. The visibility of new construction can be reduced through the design review process by controlling siting, height, and color of structures.

Construction on some of the lots on Upper Roberts Road would be somewhat more visible than homes in other locations, because the vegetation is not as substantial. Vegetation primarily consists of small, slender trees, rather than the more substantial pine trees found elsewhere in the subdivision. This vegetation exists primarily on the three flattish lots on

the end of Upper Roberts Road (AP #114-100-68, 78, and 62). The visibility of any future structures could be decreased by restriction on colors, height, and orientation of the buildings. Although relatively short, the vegetation is dense and could screen development if properly used.

Houses on the downslope side of Upper Roberts could be visible, since the steep slope precludes the possibility of tree cover. The trees on the higher slopes would provide a canopy behind this development. In addition, these structures would probably be visible only from certain limited areas, depending upon the height of the structure.

Effect on Park Users. The effect of existing and future development on park users depends upon several factors. These are: location of present and future trails and other types of facilities; intensity of use of the trail; overall visual experience of the trail; and the distance from the viewer to the subdivision.

It is anticipated that the Tomales Bay State Park land will remain under state jurisdiction for the foreseeable future. Under state law, the Park is required to prepare a master plan for park development, but funding for this planning effort is not now available.

The visibility of some areas of the subdivision, notably the downhill lots on Upper Roberts Road, depends upon whether or not a new trail is created on the southern slope of the ridge adjacent to the subdivision. This slope is in the Tomlinson Creek Watershed, and construction of any future trail in this area should be discouraged because of the danger of increased sedimentation of the stream. In addition, the need for such a trail is questionable, since it would be approximately 600 feet from the present ridge trail. The ridge trail affords views of Tomales Bay, which one on the slopes would not, and therefore is apt to be more heavily used.

Therefore, because of the lack of funding for park planning and physical improvements, it is assumed that the existing trail will continue to be the only area from which the north side of the subdivision is visible. Additional trails on the south side of the ridge are not recommended because of potential detrimental effects on Tomlinson Creek.

The existing ridge trail, although well maintained, appears to have a fairly low level of use. Although accessible from a trail leading to Mount Vision, the trail is not marked at either end; in fact, it terminates to the east at private property. The public, therefore, would have to hike a substantial distance through Point Reyes National Seashore or other adjacent parks to reach this trail. The closest parking area is at Mt. Vision which is approximately 6000 feet, or a little over one mile away. Because of the obscurity of this trail, it appears that its level of use would be low and would consist primarily of local residents who know of its existence.

The road cut, the area from which the subdivision is most visible, is at approximately 700-feet in elevation. The houses that are visible from this area are approximately 1800 feet away (horizontal separation) and are located between the 850 and 900 foot elevation, a vertical separation of approximately 150 to 200 feet. From this distance the houses, although visible, do not intrude into the landscape.

As was stated above, the primary experience of a person hiking through the adjacent parkland is primarily rural, not wilderness. This effect is achieved because the primary views are the more distances to Tomales Bay and the farmland across the Bay, as well as Point Reyes Station. The existing residences in the subdivision, for the most part, do not intrude into the viewshed, although they are visible from some locations.

Conclusion. Based on this analysis it can be concluded the future development along the north side of the subdivision may be apparent from the adjacent parkland. The degree of visibility can be mitigated through Marin County's design review process. Even if additional homes are

visible, however, this will not have an adverse impact on the viewshed from the park, provided additional development is sited in such a way as to minimize its degree of intrusion.

2.40 DEVELOPMENT CONCERNS

2.41 Water Supply

Water supply has been a contention for many years at Paradise Ranch Estates. Until recently, all developed lots were served by Paradise Ranch Estates Water Company (PREWC), a local water company wholly owned by David S. Adams and Sons, Inc. During the drought, six lots drew a supplemental supply mainly for irrigation purposes from private wells and springs. Numerous problems including adequate supply and pressure for domestic and fire protection purposes, leakage from decrepit water tanks causing local slide problems particularly in over-steepened road cut areas, and severe supply deficiencies during periods of drought, particularly during 1976-1977 when importation by truck became necessary, were associated with the water distribution and supply system. Moreover, several instances of illegal water diversions from Fish Hatchery Creek were recorded. Finally, in 1979, residents and lot owners voted to link the existing system with that of the North Marin County Water District (NMCWD). Subsequently, the distribution system within the subdivision has been upgraded and a new 6 inch main system constructed along with fire hydrants.

The assurance of an adequate and reliable water supply and distribution system to Paradise Ranch Estates has removed one of the major constraints to continued buildout of the subdivision. Both fire protection and adequate supply during drought years had become increasingly difficult issues. Moreover, guarantee of water supply has removed the immediate need for on-site wells; thus the concern for septic effluent pollution of wells on small lots within the area is effectively removed.

2.42 Septic Systems

At the present time there is no sewer service to the Inverness Ridge area; existing homes are served by individual septic systems. Marin County does not currently encourage or permit the use of alternative septic disposal systems (such as Clivus multrum or small "package" treatment plants). The only waste disposal alternative for the remaining undeveloped lots of the subdivision is conventional septic disposal.

The adequate and environmentally sound disposal of septic wastes has been a longstanding concern of residents of Paradise Ranch Estates. Reasons cited for concern include the following: potential effluent contamination of Tomales Bay and the Upper Fish Hatchery Creek watershed; possible contamination of groundwater supply and individual wells; and the steep slopes and typically small lot size of the subdivision which may combine to bring septic effluent to the surface in steep downslope conditions.

Soils. Soil conditions on Inverness Ridge, the purification value of the soils/vegetative complex, and the capabilities of standard engineered septic systems indicate the potential for environmental degradation to be minimal. Soils data of the Soil Conservation Service establish that a relatively deep and permeable soil profile has developed in the Inverness Ridge area. Depth to bedrock ranges from 40 to 60+ inches and is typically 60 inches. Depth to high water table is over six feet. The Inverness loam is characterized as deep and well-drained: permeability at all slope gradients ranges between 0.16 - 2.0 inches/hour, (considerably more favorable than the currently required Marin County percolation rates of 120 minutes per inch or 0.5 inches per hour).

Tests performed by Cooper Clark and Associates (CCA) in 1978 showed percolation rates of 2 inches to 24 inches per hour in the Paradise Ranch Estates area. (The County's minimum standard is 0.5 inches per hour). It should be noted that rapid percolation (greater than 24 inches per hour) can limit the purifying capability of soil bacteria (CCA 1978: 3-28). The County's proposed septic ordinance would require more precise testing of the percolation rate of the soil. The ordinance would set a maximum percolation rate of 120 inches in two hours.

The Supplement to the Inverness Septic Tank Study (1979) by Warshall-Breedlove, stresses the excellent function of the local Inverness soil group as a wastewater purifier due to its good soil aeration, medium clay content, medium to high water-holding capacity, dense plant life, deep rooting zone with lots of fine rootlets, and year-round relatively warm soil temperatures which foster strong year-round bacterial action and plant uptake of nutrients. Furthermore, due to the above and to the minor contribution of septic tank effluent to the total annual nitrogen input to Tomales Bay (significant nitrogen-input sources include rainfall, natural runoff, lead nitrates from car exhaust, aerosols, nitrates from soil disturbances and animal manure, fish migration and guano addition), the 1979 study concludes that septic tank effluent is not presently significantly altering the water quality of Tomales Bay waters, nor is there scientific evidence to suggest that the threat of septic tank effluent should be used to limit future development of parcels within Paradise Ranch Estates. Additionally, the recent inclusion of Paradise Ranch Estates within the North Marin County Water District's water supply system has dispelled the fear of possible contamination of water supply wells on the small lots.

Individual sites vary significantly. Steeper slopes tend toward thinner soils; sites near floodplains show slower percolation; and, most importantly, occasional fractures in the granite substrate cause more rapid transmission of water which could reduce bacterial purification. There is no substitute for careful environmental review of the specific conditions of each site as septic permits are requested.


Slope. A review of the unpublished Soil Conservation Service soils series field information on this portion of Inverness Ridge reveals that the only limiting criteria for development construction and septic feasibility based on soils information is that of slope. On extremely steep slopes (in excess of 50 percent) not only do development costs increase, but a thinner soil mantle and gravity flow within the septic field itself may contribute to effluent resurfacing problems. Any site located on slopes greater than 40 percent will be severely limited for septic tank deployment. The reasoning behind this is expressed by CCA (1978): 4-9):

"The soil mantle on slopes is generally thinner than on level ground . . . and septic tank effluent tends to travel down-slope on a lesser gradient into the less compacted surface soils."

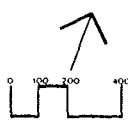
In addition, the County's present (and proposed) septic ordinance requires that application be made for a waiver from the normal standards if the average slope of the drainfield exceeds 40 percent. (The ordinance also allows a waiver from other provisions.) An existing LCP policy would preclude granting a waiver unless the Regional Water Quality Control Board has granted approval of the system or there is a public entity responsible for monitoring and maintaining such systems. Therefore, steep lots may encounter problems in obtaining a septic permit.

Figure 11, Septic Limitations, employs the 40 per cent cutoff to indicate areas which could contain situations unfavorable for the use of septic disposal on these lots. The use of a 40 percent slope criterion to indicate potential problems does not suggest that there are no other environmental constraints which may preclude septic tank development on slopes less than 40 percent. Variations in soil depth and texture, lot size and substrate will each play a role in evaluating the adequacy of a site for septic facilities (Warshall and Breedlove, 1979). The County's septic ordinance sets other requirements, such as minimum setback from a drainage channel. There is no substitute for site-specific environmental review, sub-surface data, and application of the County's regulations contained in the Sewage Disposal Ordinances.



 40% + SLOPES

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Figure 11
SEPTIC LIMITATIONS

Notes
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#1	#2
	

2.43 Circulation and Road Access

The present roadway system is fundamentally the same as laid out during the initial platting of the subdivision. The roads are rough dirt, often steep and characterized by dangerous hairpin turns; only the entry road, Drake's View Drive, has been paved. Both safety and future service levels on the road system have been of major concern to residents of Paradise Ranch Estates.

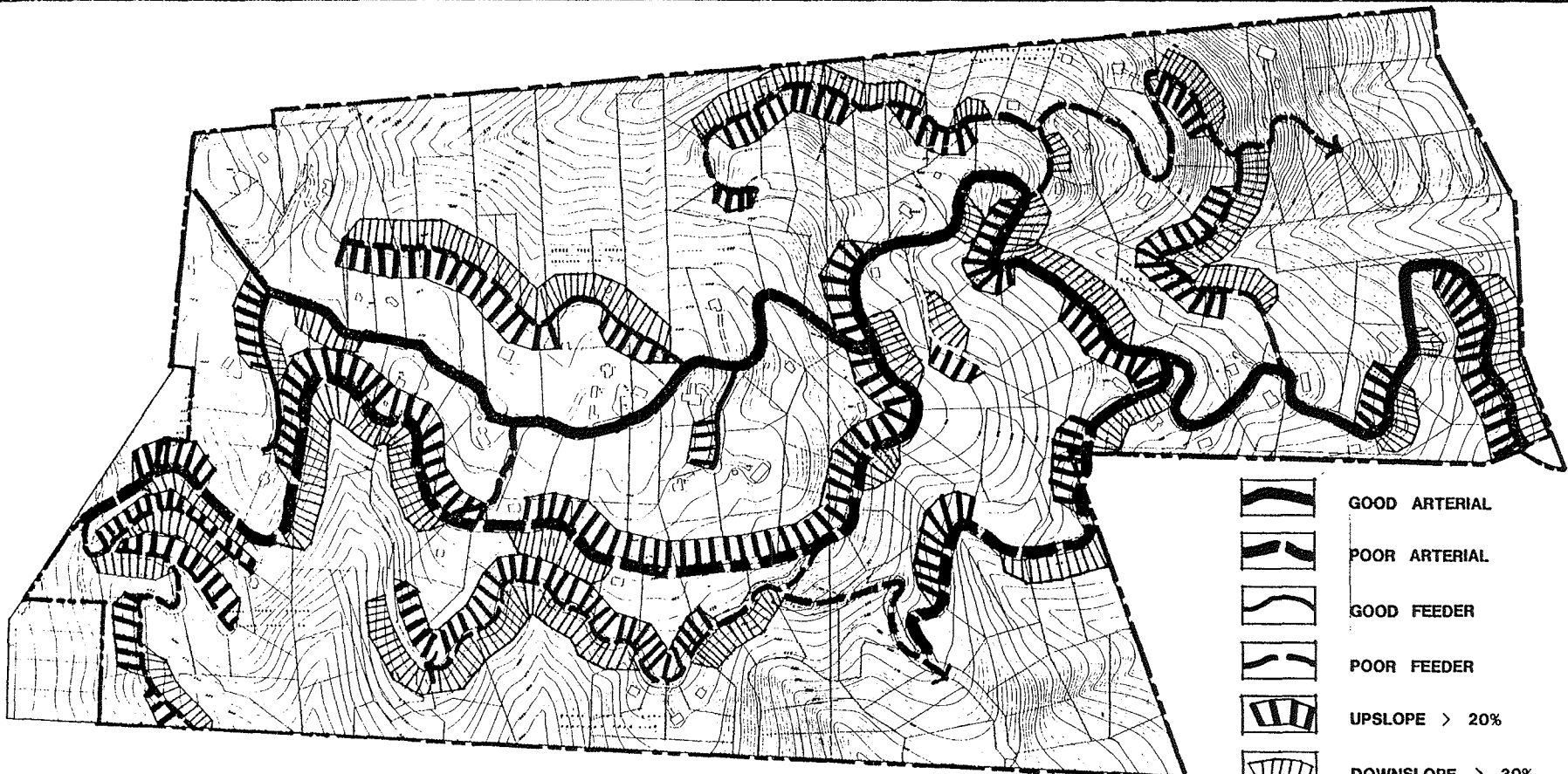
The developability analysis herein focused on those aspects of the existing road system which may limit the desirability of development of unbuilt lots when compared to other limitations associated with these lots. The underlying assumption that proximity to the improved arterial roadways and feeder roads of the subdivision enhances the developability of lots is based on recognition of such conditions as the difficulty of access on unpaved roads (particularly during the rainy season, or for fire and emergency vehicle response), additional safety hazards associated with increased traffic load, increased sedimentation potential with increased roadway use and increased demand for road maintenance on unpaved roads.







Accordingly, a Circulation and Road Access Limitation was incorporated into the development constraints analysis such that the existence of either poor roadway access to the site or poor site/driveway accessibility, as described below, was judged to constitute a negative development limitation having a potentially adverse environmental impact.

In order to characterize roadway conditions, all roadways were first classified as either arterial or feeder roads: arterial roads include the three major east-west access routes to the subdivision (Drake's View Drive, Sunnyside Drive and Douglas Drive); all remaining roadways were classified as feeder routes. Arterial and feeder roadways were then characterized as relatively "good" or "poor" based on

slope conditions, length of roadway, and road surfacing. Only Drake's View Drive, the single paved road in the subdivision, has been classified as a "good arterial."

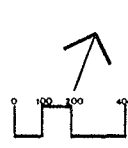
Site access to individual buildable lots was also analyzed. Given the steep slopes throughout the subdivision and the potential for environmental damage, from vegetation removal, increased erosion and sedimentation, and weakening of potentially unstable soil conditions by steep driveway cuts, driveway access requirements were judged to represent a significant impact potential. Accordingly, natural slopes in excess of 20 percent on the upslope side of the access road, and in excess of 30 percent on the downslope side, have been evaluated as unfavorable conditions for development requiring private driveway access. Figure 12 illustrates these roadway limitations.



-  GOOD ARTERIAL
-  POOR ARTERIAL
-  GOOD FEEDER
-  POOR FEEDER
-  UPSLOPE > 20%
-  DOWNSLOPE > 30%

NOTE MANY LOTS HAVE NOT BEEN INCLUDED BECAUSE THEY HAVE ADEQUATE CROSSLOPE ACCESS (ALONG THE CONTOUR)

PARADISE RANCH ESTATES COASTAL RESTORATION PLAN



the planning collaborative
preparation

by: Ed Smith
The Planning Collaborative
City of San Anselmo
July 1976

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Figure 12
CIRCULATION LIMITATIONS

notes

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Roadway Capacity. A detailed assessment of traffic impacts and potential road improvements was not included in the scope of this study. However, some Paradise Ranch Estates residents indicated at the community workshops that roadway safety is a serious concern and requested that some consideration be given to the potential for traffic impacts from additional development and the need for and means of implementing road improvements. The following limited information is offered to assist in dealing with these issues.

One aspect of the traffic issue is the capacity of Drake's View Drive to absorb additional trips from the build-out of the subdivision. Daily auto use by residents of Paradise Ranch Estates has been projected to be half that of the standard used in estimating vehicular trips from residential development (5 trips rather than 10 trips per dwelling per day (I. Schwartz, MCDEPW, Letter 1978); such that at full build-out (without Federal acquisition of lots) 170 dwelling units could produce from 850 to 1700 vehicular trips per day.

Traffic studies have indicated that only in unusual circumstances do homes generate more than one trip during the hour of peak traffic flow and therefore, that figure is often used as an estimate of trips generated (Institute of Traffic Engineering, 1976). Although the long distance to work, shopping, school, etc., from Paradise Ranch results in more multi-purpose trips and thus fewer trips, under the worst conditions the peak hour would have a total of 170 trips out (morning) or in (evening) on the lower portion of Drake's View Drive used by almost all residents.

Road capacity is generally projected by taking the ideal capacity and adjusting for each of the travel constraints present. The ideal capacity for a two-lane road is 2000 cars per hour. The capacity of a two-lane road with 9-foot travel lanes, no shoulders, opposing traffic, hills, and sharp curves, some of them blind, is estimated to be 58% of the ideal capacity. The adjusted capacity for the severally constrained road is 1160 cars per hour. The average distance between cars for 1160 cars per hour is a little over 100 feet at 25 miles per hour average speed.

Because there are few stretches of Drake's View Drive in which a speed of 25 miles per hour can be safely achieved, and because in most stretches the road is 10 feet wide, a

formal detailed traffic analysis would probably determine a lower capacity than 1160 cars per hour. However, even assuming further reductions in the road estimated capacity, given a maximum peak hour flow of 170 vehicles per hour, it would not seem that building-out of the subdivision would cause traffic to reach the "capacity" of Drake's View Drive.

Another aspect of the traffic issue is the poor safety record of Drake's View Drive, and the extent to which further build-out will result in more accidents. It can be hypothesized that an increase in traffic will result in more accidents. The literature of traffic studies suggests that accident rates are primarily a function of road characteristics when road use is far below capacity. In other words, the rate of accidents per mile of travel does not differ significantly between travel at 15 per cent of capacity and travel at 30 per cent of capacity. However, if the accident rate is already unacceptable to the community, road improvements are desirable regardless of the amount or rate of future build-out of the subdivision.

Road Improvements. While it was not within the scope of the study to provide an engineering assessment of needed road improvements, it is apparent that the widening of some of the lower curves on Drake's View Drive could improve sight-distance and available turning radius. Such widenings would need to be carefully engineered and constructed both to ensure structural stability and also to minimize the adverse environmental effects of grading and vegetation removal.

Paving of all arterials and feeders would greatly improve serviceability, improve wet-weather emergency vehicular access, and reduce road-related erosion problems. However it could also encourage greater driving speeds where even low speeds are hazardous due to the poor sight-distance throughout the road system.

All improvements should be aimed at increasing safety and all-weather access rather than design speed. Driving times from Sir Francis Drake Blvd. to the farthest reaches of the subdivision will always be great and even modest increases in travel speed could be hazardous to other vehicles and pedestrians. Enforcement of low driving speeds as promoted by the Residents' Association in cooperation with the sheriff's department, coupled with a program of modest corrective road improvements could provide some relief to the present and future traffic concerns of residents.

Roadway improvements can be undertaken as an incidental part of a broader Conservancy project. Absent such a project, the existing Paradise Ranch Estates Road Maintenance District may be the most efficient vehicle for undertaking further road improvements. This District was formed in 1970 as a Permanent Road Division (Section 1160 et. seq., Streets and Highways Code) to provide specific road and drainage improvements as well as maintenance.

Currently, the costs of the District are assessed to each lot on its land value (i.e. not including the value of home and other improvements). In addition the District receives a portion of County property tax revenues which have decreased since the passage of Proposition 13. The District's original obligation of \$124,000 has been paid down to approximately \$51,000.

State law provides that a permanent road division terminates upon the payment of all debts of the division. It therefore may be appropriate for the residents of the subdivision to consider extending the District, the nature of further improvements it might undertake, and changes in the manner of assessing costs.

Fire Protection. In the event of a fire in the subdivision, the first response would be from Point Reyes Station. In addition, an automatic response would be made from Woodacre and Hicks Valley. Response time from Point Reyes Station to the top of Drakes View Drive is approximately 14 minutes. Response time from Woodacre and Hicks Valley would be an additional 50 to 20 minutes.

The National Park Service is responsible for providing fire protection in the Point Reyes National Seashore. The County Fire Department will respond to a fire in the Seashore when requested by the National Park Service; the federal government reimburses the County for costs thus incurred. The State government contracts with the County to provide fire protection services to the state-owned parkland.

Accident Reports. Obtaining accident statistics has proven difficult. Because roads in the subdivision are not County-maintained, the Marin County Department of Public Works does not maintain records of accidents; neither does the Sheriff's Department. The California Highway Patrol (CHP) does take accident reports, but statistics for this area are not compiled by the local CHP office. In addition, there is no requirement that they be reported to the state. A review of the state CHP office's records indicate that four accidents have occurred on Drakes View Drive near Sir Francis Drake Boulevard from 1976 through 1980. However, the CHP has stated that their records may be artificially low because there is no requirement that the reports be filed with them. It appears that this happened in this case, since the experience of the residents in the area indicate a much higher accident rate.

2.50 ENVIRONMENTAL ASSESSMENT OF UNBUILT LOTS

The formulation and review of the preceding environmental conditions allows an analysis of the relative limitations of lots at the subdivision. The environmental limitations criteria as derived above were applied to unbuilt lots on a uniform basis to provide a simple rating showing the total number of criteria associated with any one lot. The criteria, displayed below, have a combined value of six total points.

Environmental Limitations Criteria

Slope Instability:

Areas with Existing Landslides.

Category 4 of Slope Stability Study
(Wagner, 1977)

or

Areas of Potentially Unstable Soils.

Category 3 of Slope Stability Study and
over 30% slope

Watershed Sensitivity:

Areas with Slopes over 40%
within Fish Hatchery Creek
and Tomlinson Creek Watersheds

Septic Limitation:

Areas with Slopes in Excess of 40%.

Circulation and Road Access:

Poor Arterial Access

Poor Feeder Road Access

Poor Upslope Site Access: Slopes over 20%

or

Poor Downslope Site Access: Slopes over 30%

It should be noted that these criteria may not apply to an entire lot (excepting the circulation and road access criteria) and may be mitigated by proper siting within the lot. For instance, the septic limitation may apply to half of a property, with no limitation actually present on the remainder.






The summary of affected lots is presented below, along with the relative rating based on occurrence of environmental limitations criteria; lots are identified by category on Figure 13, Environmental Limitations on Unbuilt Lots.

**Summary Rating of Unbuilt Lots According to the
Number of Environmental Limitations Affecting Each**

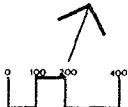
<u>Relative Limitations</u>	<u>Number of Units</u>	<u>% of Total</u>
Severe (6 to 5 criteria occur)	17	18.5%
Serious (Any 4 criteria occur)	13	14.1%
Moderate (Any 3 criteria occur)	26	28.3%
Few (Any 2 criteria occur)	16	17.4%
Slight (0-1 criteria occur)	20	21.7%
<hr/>		
Total Unbuilt Lots (Potential New Dwelling Units)	92	100%

As can be seen in the above chart, most or 67.4 percent of the remaining properties which qualify for development under the county zoning and lot merger laws have slight, few or moderate limitations, 14.1 percent are rated serious, having 4 of the 6 limitations, and 18.5 percent are rated as severely limited. It should be noted, however, that the last category contains 14 properties named with 5 of the 6 criteria and only 3 properties were found to have all six criteria. Where environmental limitations are high, site development is expected to be difficult and hence more costly. This evaluation does not represent, however, the final



-  SEVERE
-  SERIOUS
-  MODERATE
-  FEW
-  SLIGHT

PARADISE RANCH ESTATES COASTAL RESTORATION PLAN



the
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INCORPORATED

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PREPARED FOR MARIN COUNTY

Figure 13
ENVIRONMENTAL
LIMITATIONS
OF UNBUILT LOTS

NOTES

Prepared with financial assistance from the U.S. Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under provisions of the Federal Coastal Zone Management Act of 1972 as amended, and from the California Coastal Commission under provisions of the Coastal Act of 1976.



word on developability of any single lot: all lots will require detailed site investigation and design review prior to development approval. Specific on-site conditions could occur or a building proposal prove so inadequate as to result in denial of a building permit under the regulations of the County.

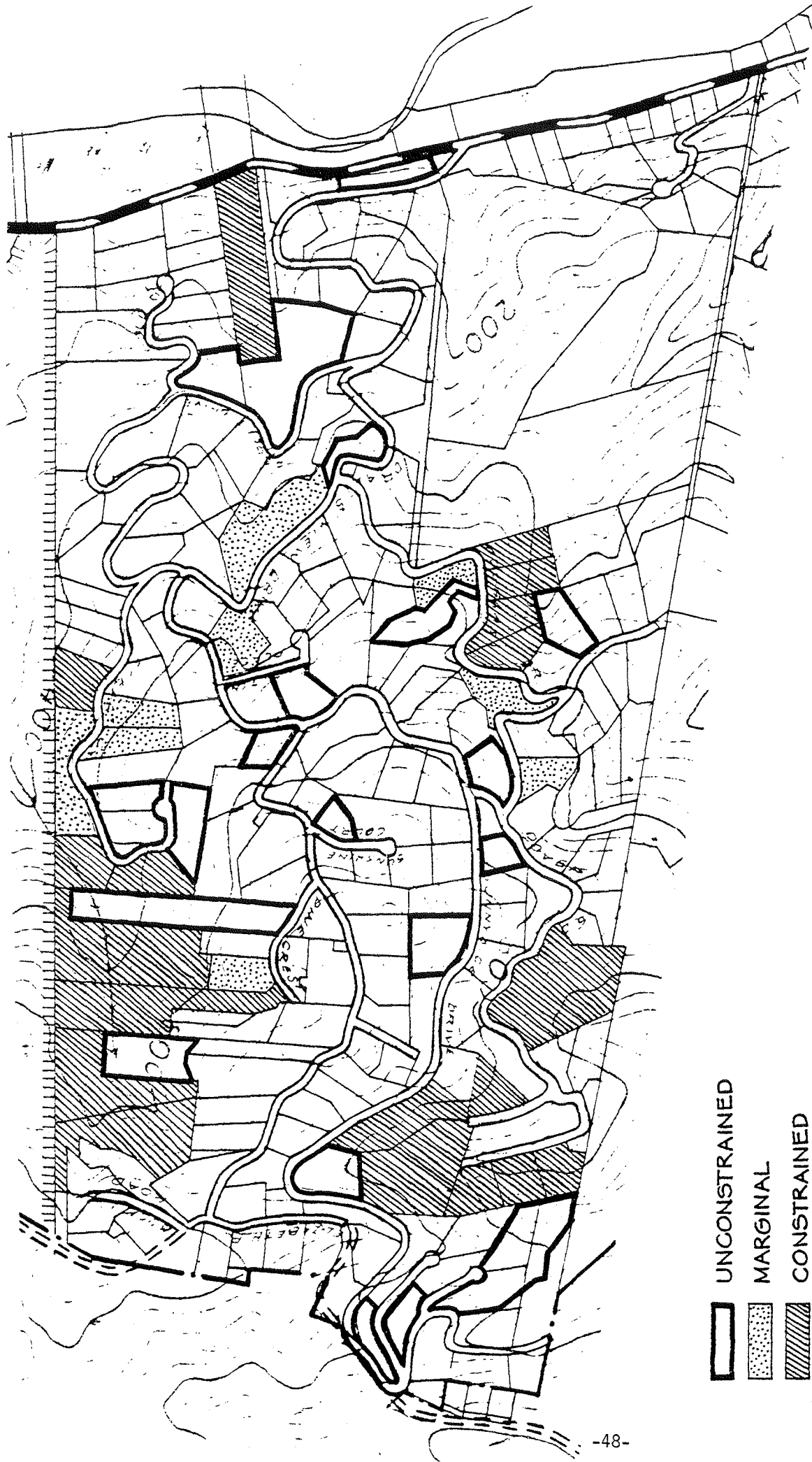
2.60 ON-SITE RECONNAISSANCE

Comments received on the draft Restoration Plan Study indicated that site-specific work was necessary to evaluate lots designated as having severe and serious limitations to development, since these categories were based primarily on existing maps and other information. Questions were raised both about the validity of classifications of individual lots and about the overall conclusions resulting from that classification.

Because of these concerns, the Board of Supervisors directed Planning Department and Public Works staff, in conjunction with other agencies, to conduct an on-site evaluation of 43 lots that were determined to be potentially the most constrained. A parcel-specific description of the findings of this analysis is contained in Appendix C. Results of this study are summarized on Figure 14.

During the on-site analysis, the potential of each lot to support development was evaluated based on three criteria: access, building site, and ability to support a septic system. This evaluation was made based on surface reconnaissance only; additional soils and/or engineering data may indicate that lots have difficulties that are not apparent on the surface or may indicate that a parcel could support development without environmental damage. No such additional work is planned by the County at this time.

Based on the on-site analysis, lots were classified into three separate categories; unconstrained, marginal, and constrained. Twenty-three lots were determined to be unconstrained; i.e., to have minimal constraints of access, building site, or septic field and therefore to be capable of supporting development. There were concerns about the ability of



ON SITE SURVEY

FIGURE 14

the lots classified as marginal to support a septic system or to provide reasonable access. Eight lots were placed in this category. All of the 12 lots classified as constrained were extremely steep and would appear to require a waiver from the requirements of the septic ordinance in order to obtain a septic permit. Based on this assessment, additional measures appear to be necessary to deal with the problems of the lots designated as constrained; measures may also be necessary for lots designated as marginal.

It should be noted that the purpose of the designation of properties as constrained or marginal and the designations on Figure 13, Environmental Assessment of Unbuilt Lots, is to assess which lots have more constraints to development than others and to identify those that might require additional action by the Coastal Conservancy or other agencies to mitigate potential adverse impacts from development. Placement of lots in the constrained or other categories does not preclude development of these lots. It does alert the property owner that development of these lots may be more difficult. However, these designations do not preclude the property owners from applying for development permits, and such permits will be granted if the proposed development meets all requirements of Marin County Code, including the Septic Ordinance and the Design Review section of the Zoning Ordinance.

2.70 CUMULATIVE EFFECTS

2.71 Potential Environmental Effects

The preceding analysis of environmental conditions indicates that future development may have little further cumulative impact on the identified environmental concerns. Existing environmental impacts, primarily downslope sedimentation in streams and drainage channels, are primarily a result of completed road construction on Inverness Ridge. Minimal slope instability problems have been experienced in the past where older water storage tanks precipitated soil instability conditions by leaking water into old slide areas and oversteepened road cuts. To date, there have been no adverse impacts of septic effluent contamination of streams, wells or groundwater on or near Paradise Ranch Estates, or of Tomales Bay, resulting from development at the subdivision.

The following discussion evaluates future conditions and potential cumulative effects of development on each of the following concerns: slope stability in oversteepened land, watershed sensitivity, septic disposal, roadway circulation and traffic safety, erosion and sedimentation, and visual quality. This discussion assumes that some effects of future development will be mitigated through the design review process.

Slope Stability. In the future, development on very steep slopes will require properly engineered foundations and surface drainage systems to avoid structural stability problems. As long as existing vegetation is retained, and grading alterations to natural drainage channels is avoided, stable development can be expected. However, where drainage water is improperly handled on existing roadways or roadway shoulders undermined, slippage and damage could occur, particularly where roadways pass through steep terrain. Special attention will be required of construction in the identified large landslide deposits, with respect to off-site effects of development on adjacent parcels as well as to on-site construction.

Watershed Sensitivity. In view of the topography of the Fish Hatchery Creek watershed and the location of roadways in oversteepened areas, continuing erosion and sedimentation can be expected as a result of vehicle use of the unpaved roads and road maintenance practices. New development may contribute to erosion and sedimentation especially in the steeper portions of the subdivision if soil is exposed by vegetation removal, by grading for driveways, and by site clearance for buildings and septic system leachfields. Improper handling of surface runoff from roadways and structures may also contribute to accelerated sheet erosion causing increased sedimentation in the stream. However, these potential future impacts of new development can be mitigated if proper development standards are implemented. Continued erosion problems associated with the unpaved roads can be remedied through proper paving and drainage construction.

Septic Disposal. The relatively large lots and high percolation rates of Inverness Ridge soils appear to allow for the proper installation and accommodation of septic disposal fields in most cases. The awkward configuration of some of these parcels, occasional presence of rock outcrops, variable soil depth, varying density of tree cover, and competition on steeper lots between the house and the septic field for the available, more gentle site area, will create problems for adequate septic field design in the future.

Of special concern, however, is the potential cumulative effect of larger septic fields on woodlands and other vegetation. Where soils are shallow the length of drain lines and hence the size of the field must be increased. In these cases, increased disturbance of natural vegetation, soils disruption, and damage to tree roots in dense stands of trees, could result in loss of tree cover and adverse visual impacts. To avoid these problems, special regulatory procedures and attention will be required on a lot by lot basis from the Departments of Public Works and Planning in designing and siting septic fields.

The on-site reconnaissance revealed that approximately 17 lots within the subdivision may have difficulty in fitting a septic system that conforms to the standards of the Marin County septic ordinance regarding slope, setbacks from drainage courses and cut banks, etc. Marin County Code presently allows an applicant to request a waiver from the strict application of the requirements of the septic ordinance, upon presentation of evidence by an engineer that such system will operate properly. However, LCP policy on septic systems would prohibit the County from granting waivers except under certain conditions. This policy states, in part:

No waivers shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by the Regional Board, or such waivers have otherwise been reviewed and approved by the Regional Board.

If the policy of no-waiver is strictly applied, except when evidence clearly shows that such system will function properly, as certified by the Regional Water Quality Control Board, then there is not expected to be a cumulative impact on groundwater, regional streams, or Tomales Bay from sewage effluent.

Erosion and Sedimentation. The major source of sediment from the subdivision results from the existing unpaved roads. It is a problem that does have effects on adjacent waterways and Tomales Bay. Future development would

increase erosion, and thus sediment load, if grading and other development are not properly mitigated. Mitigation measures are recommended in the Design Review Section of this report. In addition to erosion controls, paving and/or replanting of the existing unpaved streets will reduce the present problem of erosion. Drainage improvements as part of the roadway improvements would also improve the situation.

Traffic. As stated in the study, traffic volume will increase on the roads in the subdivision with future development. However, problems with the road system are more related to the steep, serpentine nature of the roadways, as well as the lack of paving, than with the actual volume. Therefore, the development and implementation of a roadway improvement plan, as the County has requested of the Coastal Conservancy, including paving and some minor modification of the alignment, will improve safety, as well as improving the erosion problem, discussed above. It should be noted, however, that full development of the subdivision will add more traffic to the already hazardous road system. In addition, the steep grade of the road system acts to hinder emergency vehicle access.

Visual Quality. The visual analysis indicated that although some houses on the north side of the Paradise Ranch Estates are presently visible and that additional development may be visible, neither present nor future development would intrude into the landscape. This conclusion was based on several factors, which include the heavy tree cover throughout most of the subdivision; the tree cover and topography of the adjacent Tomales Bay State Park; the nature of the trail, which affords a rural rather than wilderness experience; the low level of usage of this area of the park; and the mitigation of potential impacts through the design review process. Additional design guidelines to mitigate these potential visual impacts are proposed in the Design Review Section of this text. Provided adequate safeguards are applied through the design review process, there would be no significant cumulative visual impacts on the adjacent Tomales Bay State Park from additional development in the subdivision.

2.72 Potential Fiscal Effect of Full Development

Continued development can enhance the ability of the subdivision to pay for existing and future improvements. Obligations are currently outstanding for two past improvement projects in Paradise Ranch Estates-- one for road improvements, and the other for water service.

The original road obligation was \$124,000; the present balance is \$51,000 which amounts to an average of about \$300 per buildable parcel. Annual debt service is \$13,000 plus interest at 7 percent, making 1980-81 debt service about \$16,500. In addition, the Permanent Road Division receives approximately \$3,00 annually as its share of property taxes, which is used for maintenance.

The remainder of debt service is apportioned among almost all lot owners in the subdivision on the basis of assessed land value; thus vacant lots contribute a large share of the total. The public or land trust purchase of some lots could increase the burden on the other lots, but it is doubtful that any lot purchase program would be large enough and be implemented soon enough to make a significant difference. If further expensive road improvements are incurred, however, the number of lots, developed or undevelopable, available to share the cost could be significant.

The water system is a part of the North Marin Water District, although the debt service is covered primarily by revenues from water service to the subdivision. The loan balance is \$240,000, payable in 40 years with a 5 percent interest rate; the debt service is thus about \$12,000 per year. A small portion of this amount comes from a \$10 annual standby charge per lot. The District has amended its policy to levy the fee only once on merged lots. The great majority of the revenues come from water service to existing homes in the subdivision, debt service being an average of about \$150 per home.

3.00 DEVELOPMENT CONSOLIDATION PROJECTS

3.10 INTRODUCTION

The investigation of projects which could be undertaken by the State Coastal Conservancy was conducted concurrent to the environmental analysis presented in the preceding chapter. A number of project approaches, applicable to the capabilities of the Conservancy, were identified and studied as to their suitability to the conditions present on Paradise Ranch Estates. Other measures which could be undertaken by the County or by the residents themselves were also identified.

In concept, planning measures were formulated as potential plan components or building blocks which might form one plan or another according to the objectives of a plan or the feasibility of their use. Five of the measures investigated and presented below fall wholly within the powers of the Conservancy and may be described as development consolidation type projects. Two others, a land purchase alternative, through a Local Conservation Land Trust, and a clustered lot development alternative would not be lead responsibilities of the Conservancy but could receive its assistance. Applicable regulatory techniques available to the County are identified in Chapter Four.

The basic approach of the Conservancy in restoration projects of this nature is to purchase properties in an environmentally sensitive areas and consolidate development so that impact problems can be avoided. The result may be: (1) the clustering of development within a number of contiguous lots by shifting building sites from poor locations dictated by illogical parcel boundaries to good sites made available by improved parcelization; and (2) the transfer of development potential from a number of poor building lots to a wholly unctiguous, yet sound development site capable of receiving the desired number of buildings. This last technique is also referred to as the purchase and transfer of development "rights". The latter approach allows far more flexibility in dealing with the problems of a coastal subdivision.

The following presents each of the planning measures formulated in this study. The purposes, development characteristics, advantages and disadvantages from the standpoint of developmental, economic and legal feasibility of each of the development consolidation projects are discussed in this chapter. The remaining measures are presented in the following chapters:

- .. Development consolidation projects of the Conservancy
 - . Multi-unit housing projects
 - . Vest-pocket housing projects
 - . Commercial lodge facility project
 - . Commercial cabin project
 - . Reduced density lot consolidation project
 - . Master Plan development with Conservancy support
 - . Local non-profit land conservation trust with Conservancy support
 - . County regulatory program.

The purchase of existing subdivided lots, their consolidation and development for residential use in a program which creates a net benefit for the coastal environment is an activity the State Coastal Conservancy may undertake under its Coastal Restoration Program (Chapter 5, Division 21, Public Resources Code).

Under its legislation the Conservancy may undertake such projects itself, or it may award grants to local public agencies. The Conservancy may provide up to the total cost of the project, including planning and design cost, land acquisition costs, and the cost of public improvements required to serve the project area. Restoration projects must be identified in a certified Local Coastal Program or LCP Issue Identification or Work Program as requiring public action to resolve existing or potential development problems. The Conservancy has the power of eminent domain, through the State Public Works Board, to carry out its projects. The Conservancy has, to date, not used that power. Because of limited financial references, the Conservancy has undertaken projects thus far which ultimately return the full amount of funds invested.

In restoration projects, the local government has generally not wanted to undertake project implementation itself and so the Conservancy has planned and implemented the project. The potential development consolidation project sites within the Paradise Ranch Estates are presented in the map, "Alternative Project Sites," on file with the Marin County Planning Department. Each project is evaluated below.

3.11 Multi-Unit Housing Conservancy Project

A site was selected within the subdivision upon which a large number of units might be built to serve as a single receiving site for development-rights-transfer from purchase of numerous poor sites within the subdivision. A major criterion was a location which would not contribute additional traffic to the existing roadway system within the subdivision. Other criteria regarded the presence of a relatively large tract of contiguous parcels and the availability of good views (which could enhance the marketability of the project if undertaken by the Conservancy). Site 1, in the northeast corner of the subdivision, offered direct access from Sir Francis Drake Boulevard, adequate views from higher up the slope, and the appearance of developability using hillside architectural concepts and structural systems. A one way loop road was investigated which entered the building site from the south, reconnecting with Sir Francis Drake Blvd. to the north. A double-loaded building concept with one building complex stepping down the slope below the road and a second stepping up the slope above the road appeared feasible from an architectural standpoint. The project would produce from fifty to seventy-five condominium-type dwelling units but could not meet county development requirements for onsite parking and liquid waste disposal through septic leach fields. In addition, an existing house would be required to be purchased to provide land area for the project. A project of this nature was also considered to be highly incompatible with community character and the development policies of the Local Coastal Program and was thus eliminated from further consideration.

3.12 Vest-Pocket Housing Conservancy Project

The initial project analysis above, indicated that an alternative to the single large-site approach might be explored in which a series of smaller or "vest-pocket" sites might be developed to take advantage of the smaller scale opportunity that appeared to be present throughout the subdivision and which together might

**VEST POCKET HOUSING
SITE 3**

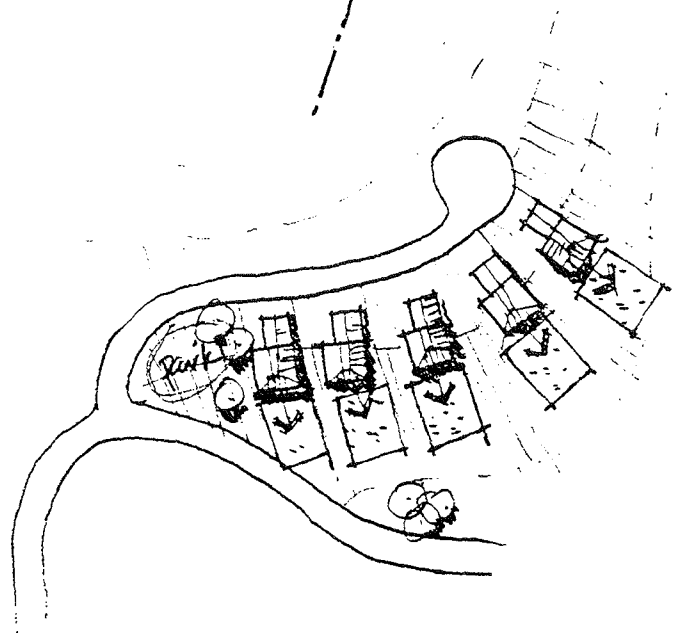
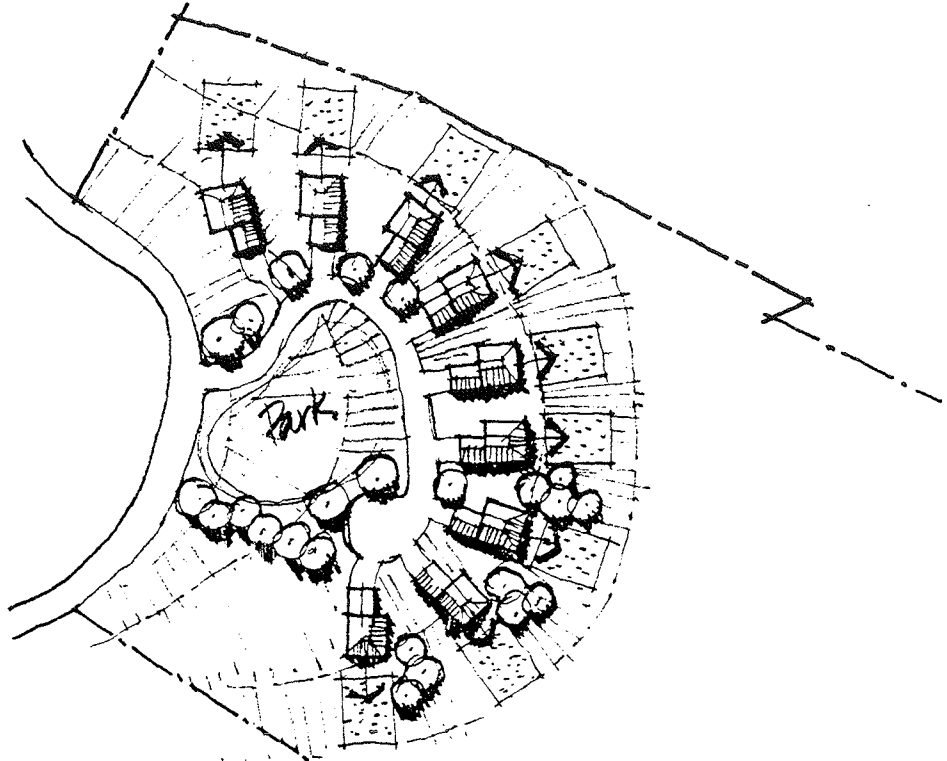


produce sufficient development potential to transfer development rights and consolidate development. Sites 2, 3, 4, and 5, shown on the Plan Measures Map, indicate the vest-pocket housing sites which were studied. In order to assemble these sites, a total of 21 properties would be acquired with the existing development potential of 18 new units. Three of these properties are merged with adjacent built parcels and thus have no further development potential. Since the primary purpose of the development project is to generate funds to purchase vacant lots, and meet development costs, various development programs were considered initially to gage which housing approach would provide the most advantageous return. It was found however that development at densities permitted by current zoning would not cover development costs much less produce additional revenue for the purchase of other lots. Only development at higher densities offered prospects for satisfactory project economies.

A maximum site development scheme presented below was then prepared to explore the potential for economic benefits supporting project feasibility. Under this approach, maximum densities were employed which are in excess of those permitted by current zoning. Two types of development were considered to reflect the existing housing mix found within the subdivision. Sites 2 and 3 were considered appropriate to a program of larger, one-story homes ranging from 2,500 to 3,000 square feet (four bedroom type units) which are considered compatible with surrounding neighboring houses, and the relatively gentle slope conditions of these sites; Sites 4 and 5 were programed for smaller, two-story units of approximately 1,500 square feet each (two-bedroom type units) to achieve maximum density on the somewhat steeper terrain.

Using alternate design approaches these sites could achieve a maximum development of 42 dwelling units under a Conservancy project; thirteen of these would represent the larger, more expensive 4-bedroom type dwelling units and the remainder, the smaller 2-bedroom type units. However, actual soil and vegetation conditions on the site which govern septic field, road, and building siting and the need to avoid excessive tree removal, could reduce the developability of especially the yield of the two-bedroom type site to avoid adverse environmental impacts. Actual development potential with these environmental considerations in mind could be reduced to ten four-bedroom type units and 20 two-bedroom type units or 30 total project dwelling units. However, only the maximum development scheme is

**VEST POCKET HOUSING
SITE 4 A 9 UNITS**



**VEST POCKET HOUSING
SITE 4 B 5 UNITS**

presented below to examine the conditions likely to produce the best economic return.

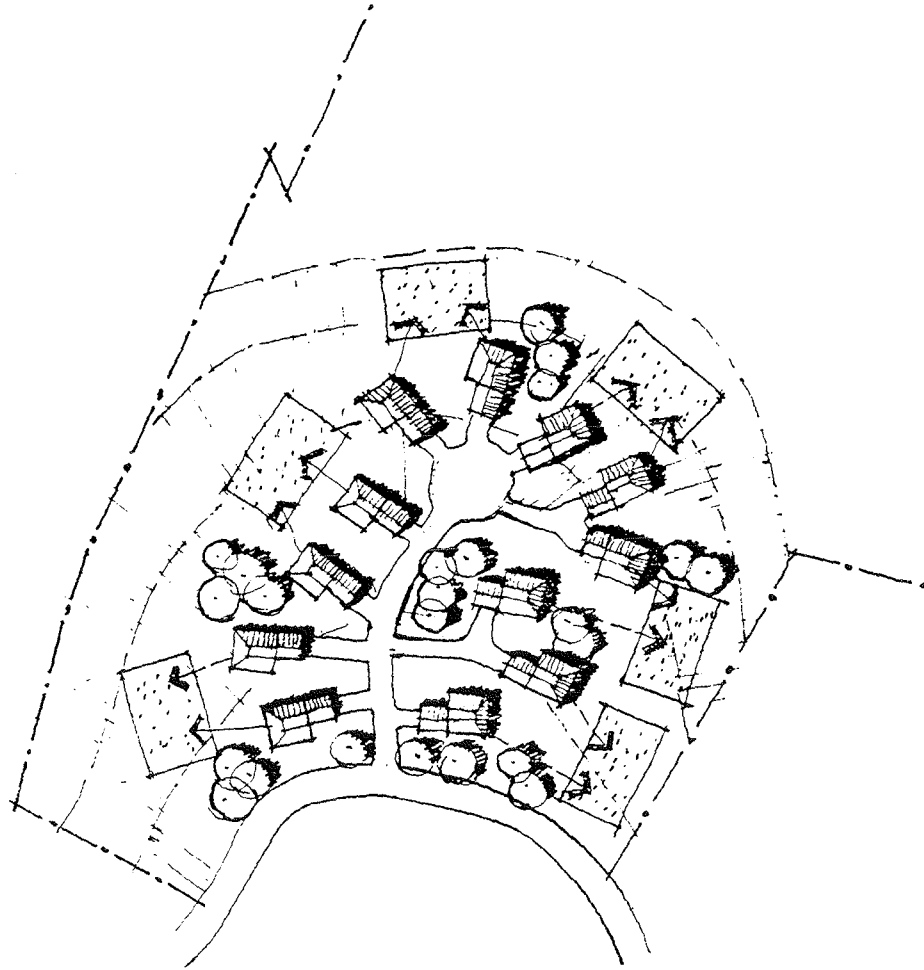
(1) Four-Bedroom Type Homesites. The design analysis for sites 2 and 3 indicated that Site 2 could be comfortably developed as a four-unit cluster off a single access road with larger units, each having relatively good views and adequate septic field area. Site 3 could accommodate up to a total of nine units, each reasonably well-spaced from the other and from the roadway and located along a branching cul-de-sac feeder road from Drakes View Drive. This design approach allows building locations on the more gentle sloping areas of the site with minimum land disturbance by the access road. Although numerous clearings exist on this site where buildings might be sited, vegetation removal could be required at this density. Careful siting would be required to offer adequate septic disposal fields for each house yet septic development appears highly feasible.

(2) Two-Bedroom, Two-story Type Homesites, Site 4 This site could accommodate a housing cluster (4a) toward the top of the Ridge of 9 units sited along a single access road; and a smaller cluster at the lower portion of the site (4b) consisting of approximately five units developed in a narrow band parallel to the contour and below a single access road. The higher density in this area is made possible by a smaller ground floor dimension, 2-story building construction, and less spacing between units.

In the Site 4a cluster, 12 units could be achieved through use of shared septic fields (2 units per leach field) or with individual septic systems. From a development standpoint, the advantages and disadvantages of either septic approach should be assessed at such time as specific site plan might be drawn. However, from an administrative standpoint, the shared system is frowned upon by the County because of problems of enforcement and ownership responsibility in the event a septic system fails. The 9 unit alternative is perhaps more reasonable and would allow for a central, somewhat flat play area to be developed at the center of the cluster.

Site 4 would require purchase and assembly of 3 development lots and 2 additional properties which are already merged with the adjoining built properties. Although located on Sunnyside Drive which is considered a poor arterial roadway, the site is

**VEST POCKET HOUSING
SITE 4 A 12 UNITS**



relatively close to Drake's View Drive and could serve to divert travel loads from the upper reaches of Drake's View Drive if used as a receiver site to transfer development from upper areas. The good easterly views afforded the site and relatively small number of developable parcels which would be required to be purchased give it a high degree of development feasibility.

(3) Two-Bedroom, Two-story Type Homesites, Site 5. Site 5 is a steeper somewhat more difficult site than 4 above, yet depending upon the design approach, 15 two-bedroom type units could be developed on the site. All design approaches tested rely on building layouts which array the building along and parallel to the contour, with septic fields developed immediately downslope from the buildings. The smaller ground floor dimension and two-storey construction with narrow side yards permits a higher density to be achieved. However, actual site conditions including variable soil depth, the presence of rock outcrops, and the location of trees throughout the site could reduce the density. Four lots on the south side of the parcel are in the Federal park lands purchase program, a factor which weighs against the feasibility of this site. Acquisition of these parcels by the Federal government could cut the development potential of the site at least in half and reduce design flexibility.

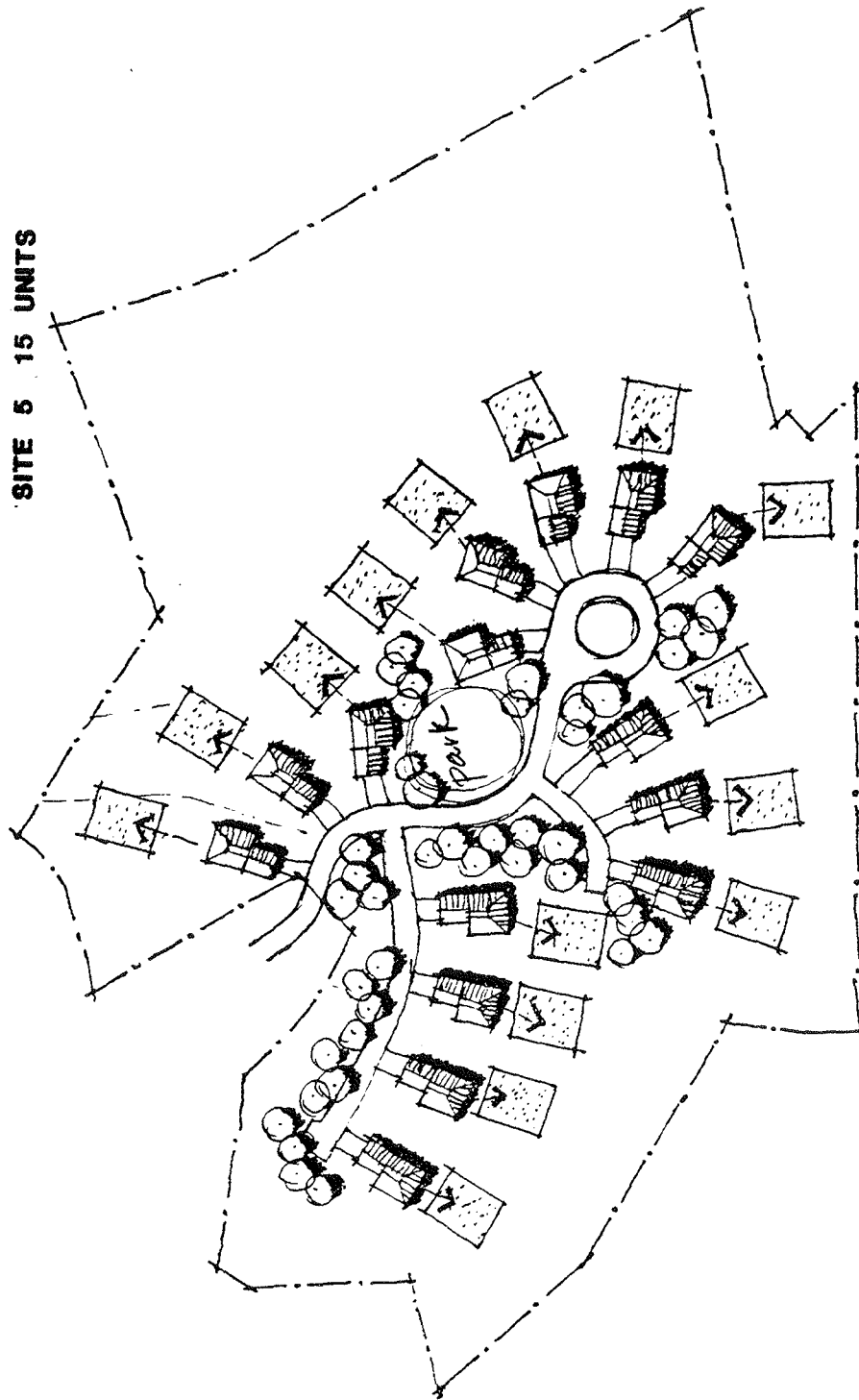
3.13 Fiscal Potential of the Vest-Pocket Housing Program.

This section estimates that cost of purchasing the lots to be replatted as vest pocket housing sites, the market value of the replatted lots, and the net proceeds from such a program. No estimate is made of the administrative cost of the program. Also, neither the cost of money during the replatting and resale process nor the land value appreciation during this period is projected.

It is estimated that the average market value of a vacant lot in Paradise Ranch Estates is \$40,000 to \$45,000 in January 1981. This estimate is based on sales of vacant lots since October 1977. These sales also indicated that lot prices have been escalating at close to 3 percent per month, or 2 percent per month after adjusting for inflation.

There is significant variation in lot prices around this average. Approximately two-thirds of the lot sales fall within a range of \$15,000 on either side of the

**VEST POCKET HOUSING
SITE 6 15 UNITS**



average. Price variations are due to size, location, view, construction difficulties, and other lot characteristics. Lots on Drakes View appear to be valued about 5 percent higher than lots off of Drakes View. Lots larger than 1½ acres are valued on average about 20 percent higher than lots under 1½ acres.

The value of lots in the market today appears to be depressed because of uncertainty over possible obstacles. It is difficult to know what the value would be if development rights were guaranteed, as comparable sales are not available, but it would probably be approximately \$60,000 to \$70,000.

If the Conservancy were to purchase lots, it is unclear at which price the purchase would be made. In general, the price the Conservancy would pay would range between the current depressed market price and the price for a developable lot, probably toward the full development value. More specifically, the developable lot price would probably be the required price if the Conservancy was planning to develop the lots it buys or to sell them to a developer.

The estimated lot values, for purchase and resale, are shown in the table below. High and low estimates are provided because purchase costs are uncertain; the higher figure equal to 1.5 times the present discounted market value of the parcels and the lower at 1.25 times the present value. The total land purchase cost of replatting the five sites is thus projected to fall between \$1.11 and \$1.33 million.

**PROCEED GENERATED BY MAXIMUM
VEST POCKET HOUSING APPROACH**

	<u>Site 2</u>	<u>Site 3</u>	<u>Site 4</u>	<u>Site 5</u>	<u>TOTAL</u>
<u>No. of Existing Lots</u>	<u>6</u>	<u>1</u>	<u>6</u>	<u>8</u>	<u>21</u>
COST OF PURCHASE					
High	\$ 365,000	\$ 83,000	\$ 405,000	\$ 480,000	\$ 1,333,000
Low	304,000	69,000	338,000	400,000	1,111,000
<hr/>					
<u>SALE LOTS</u>	<u>9</u>	<u>4</u>	<u>14</u>	<u>15</u>	<u>42</u>
<u>SALES REVENUE</u>	418,000	155,000	536,000	547,000	1,656,000
<hr/>					
NET PROCEEDS					
High	114,000	86,000	198,000	147,000	545,000
Low	53,000	72,000	131,000	67,000	323,000

* Assumes a maximum buildout of 42 units.

Sales revenues are estimated at about \$1.66 million. The resultant net proceeds are thus estimated to be between \$320,000 and \$550,000. It can be noted that each of the four separate projects is shown to generate a surplus and no one project accounts for more than 40 percent of the total. This surplus would probably result in the purchase of between six and twelve poor development lots. (The factors that would affect the cost and hence the number of lots that could be purchased are discussed in the financial evaluation of land trusts.)

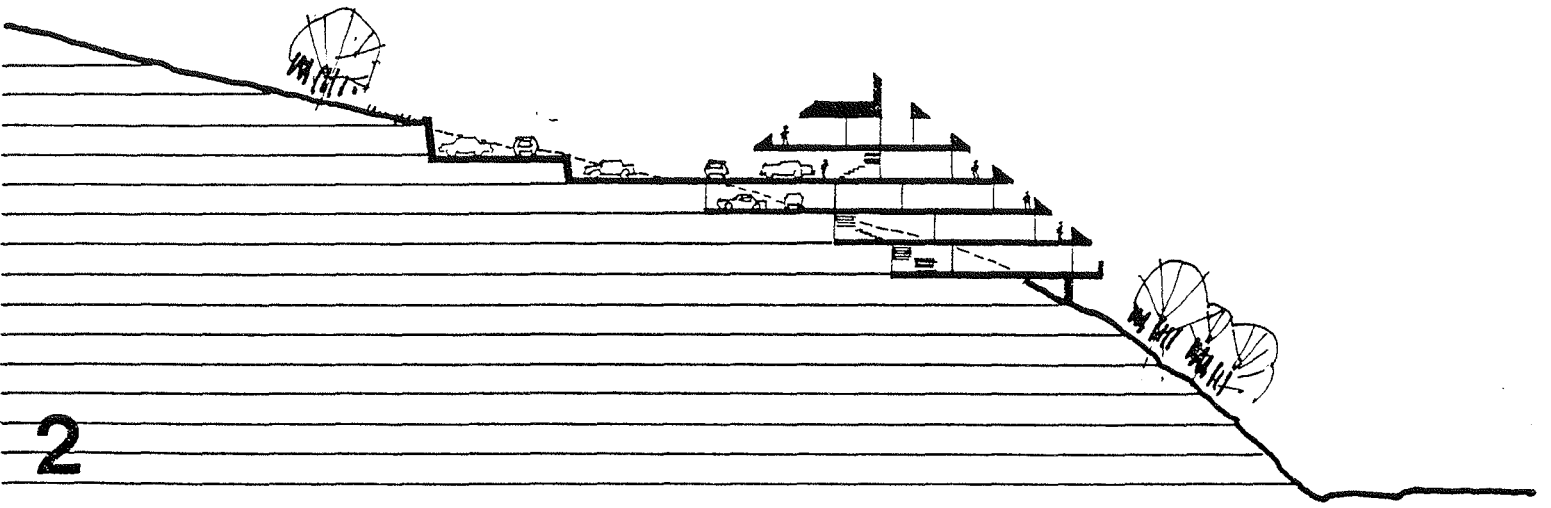
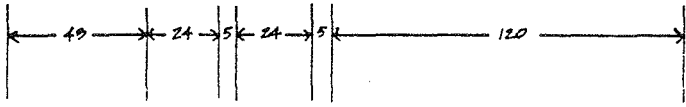
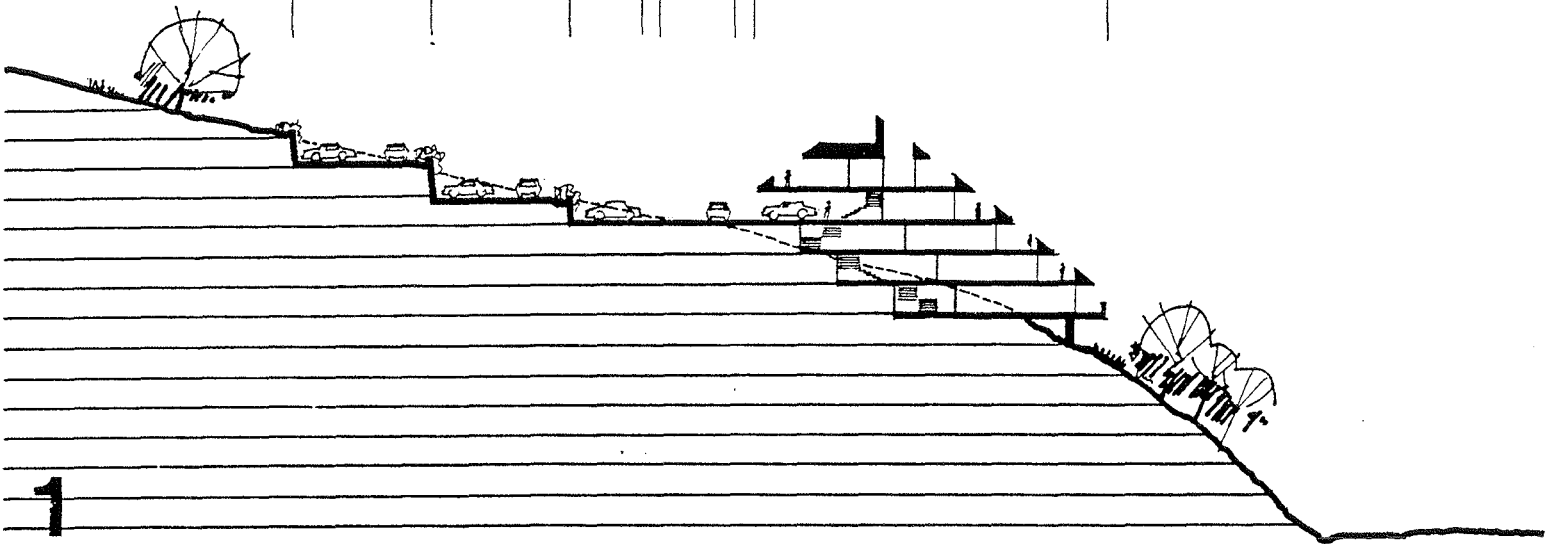
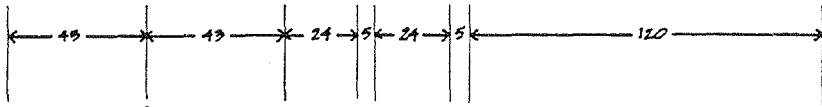
Although the maximum number of new units would be 42, the vest pocket developments would absorb 18 existing homesites, resulting in an increase of 24 homes. Since these additional homes would make it possible to purchase only 6 to 12 problem homesites, the overall result of the program would be to increase development within the subdivision by about 12 to 18 units. The disadvantages of this additional development, the potential for adverse environmental impact on the development sites and of the program overhead must be compared with the limited environmental gains from relocating development, and ultimately the attitudes of the local community to ascertain if the program is desirable.

It appears questionable, however given the marginal developmental, environmental and financial feasibility, over the limited gain, of whether the conservancy would choose to undertake such a project.

3.14 Commercial Lodge Facility Conservancy Project

The questionable development feasibility of Conservancy housing projects led to the consideration of the prospects of a commercial lodge facility. Initial appearances suggested that a project of this nature could take advantage of the large visitor public drawn to the National Seashore and could provide excess revenues sufficient to purchase lands within Paradise Ranch Estates. Site 1 was reconsidered for testing as a commercial lodge site because of the direct access afforded from Sir Francis Drake Boulevard.

Initial design analysis indicated that a large project of from 50 to 100 units might be buildable on the site and a preliminary site plan and architectural program were developed for a facility of 75 units. As in the multi-unit housing type analysis for this site, a hillside architectural approach with buildings stepping down the slope



was investigated which, through careful roof and building envelope design, could meet the development standards of the county for height limitation.

A schematic access road was developed which would provide one-way access to the lodge within a narrow road bed. Although this roadway appeared more feasible than the wider facility considered for the multi-unit housing project it would produce continuous cut and fill along the entire length of the roadway and exposed banks approximately six to seven feet in height requiring cribbing for stabilization of the roadway. Major visual impacts could result.

Leach field requirements would be considerable even at a reduced water discharge quantity of 60 gallons per day per unit. Although the available land area might be sufficient to accommodate the septic disposal needs, variable soil conditions and the need to protect existing tree cover would be expected to reduce the feasibility of septic field development.

Parking requirements posed the most extensive and difficult development feasibility issues. The accompanying site design elevations, depict two alternative cross-sections of the scheme. In one, the parking area necessary to meet County standards is shown in four areas: within the structure of the building and three outside areas stepped behind and into the hillside above the lodge. Although an open parking facility would allow for new landscaping to be placed within the paved area, the excessive amount of grading and woodland clearance would create a high impact. Under the second scheme one level of outdoor parking was removed and incorporated within the lodge structure (reducing thirty percent of the outdoor parking area).

Although the lodge complex would be approximately 80 feet above Sir Francis Drake Boulevard and likely hidden from view to travelers along Sir Francis Drake, the overall size and nature of the complex is considered to be out of character with the area and incompatible with the goals and policies of the Land Coastal Program and the Inverness Ridge Communities Plan. Rezoning of the site would also be required.

The lodge project is also likely to be infeasible from an economic viewpoint although no detailed economic analysis was prepared. Its location at the top of the hill results in very significant road expenses to provide access. The lodge itself

would entail more expensive construction costs than would be incurred on a level site. Also, a first class facility offers a wide variety of services. The overhead involved in such a program is expensive.

The above cost considerations indicate that the lodge facility would have to be quite sizable. The large size would allow the cost to be spread over more rooms, holding the per unit costs to a feasible level. The majority of operators with the resources to undertake such a facility would look to one hundred or more rooms. The project is rejected for environmental and economic reasons.

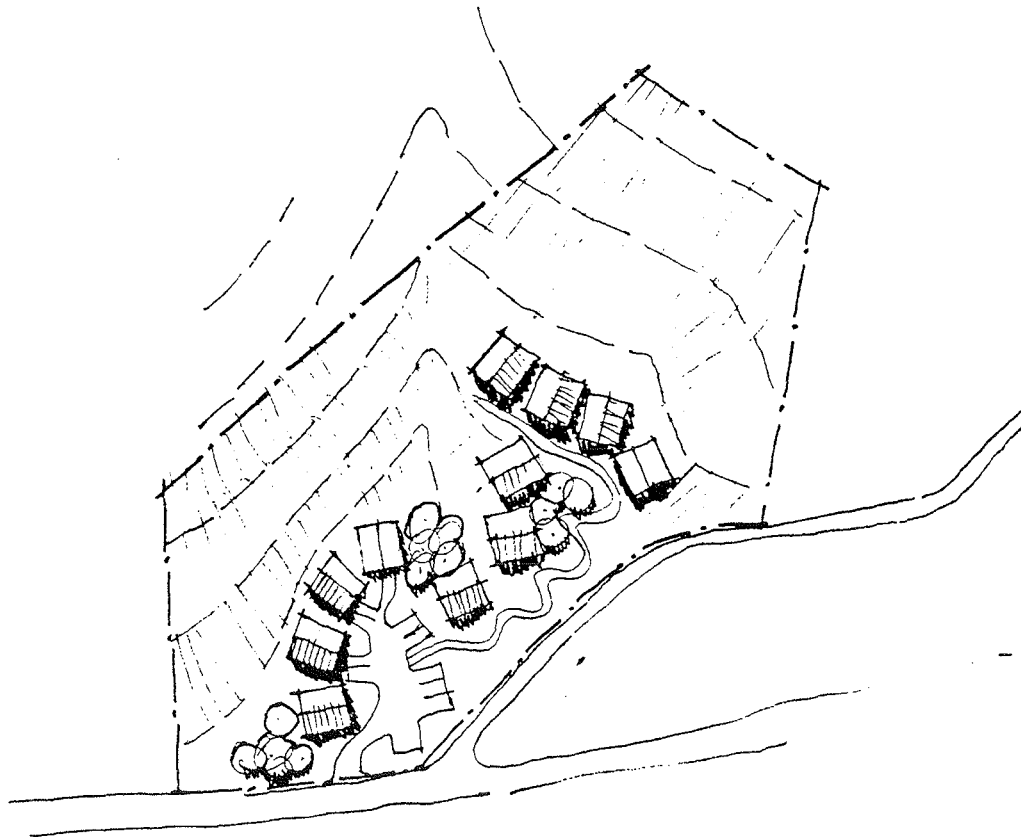
3.15 **Vest Pocket Commercial Cabin Conservancy Project**

As an alternative to large scale commercial lodging development, a smaller scale cabin site was studied. Again, a site directly off of Sir Francis Drake Blvd. was selected just below the entrance to the subdivision which included the present realty offices and a small canyon behind it (partially outside the subdivision).

The design analysis indicated that 11 units, each consisting of 750 sq. ft., could be located on the site using a "walk-in" concept in which vehicles were parked on the lower, flat portions of the site. Depending upon parking requirements, septic disposal methods, variable soil and vegetation conditions, and the size of each lodge and cabin, it was felt that from 10 to 15 units might be developed. This project type appears compatible with the character of the area; however, it would require a re-zoning. It would be inconsistent with Local Coastal Plan policies.

The commercial cabin project would not be feasible for a chain organization because of its small size. Given its attractive setting, it would probably attract an individual or couple who would be happy to operate such a facility and consider the life style benefits as a supplement to the financial benefits. In line with this type of operation, a residence would have to be designed as part of the facility.

It is difficult to estimate the land value generated by such a facility, both because of the scarcity of comparable operations and because of the probable willingness of the operators to accept a modest return on their investment. It is likely, however, that the value for a parcel capable of holding eight visitor units and a home would be between \$150,000 and \$250,000. This would probably be of the same order of magnitude as the cost of purchasing the three lots that comprise the site. The



COMMERCIAL CABIN LODGING

surplus land value generated would, therefore, be negligible and would contribute little to a Conservancy program.

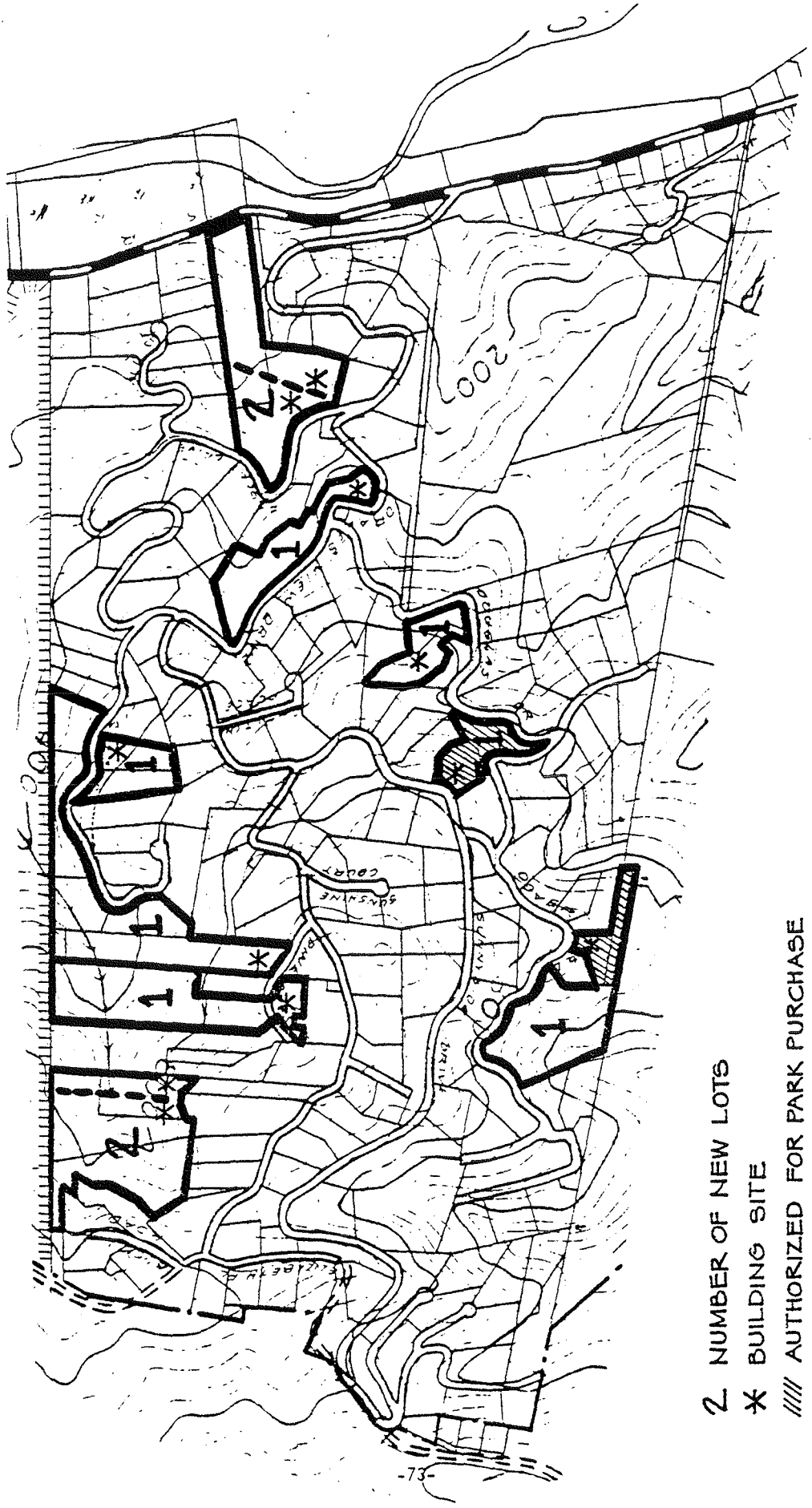
3.16 REDUCED DENSITY LOT CONSOLIDATION PROJECT

Based on the analysis of environmental and developmental factors and on the site-specific reconnaissance, a lot consolidation plan that reduces the overall density in the subdivision was developed. A comprehensive lot consolidation plan was difficult to develop for several reasons. The built-out lots are scattered throughout the subdivision and this development pattern precludes many opportunities for logical lot consolidation. Lots that have been identified as constrained tend to be located in the same areas, with the more developable adjacent lots already built out.

Generally, the plan that has been developed seeks to consolidate lots that have been identified as constrained or marginal based on the on-site reconnaissance with lots that appear to be capable of supporting development. Twenty-four lots would be affected by this consolidation, yielding a total of 11 lots capable of supporting development. These lots are scattered throughout the subdivision, but the largest number are located in the northwest section. These recommended consolidations which are shown on Figure 15, are:

AP #114-120-62, 52, and 53 (Shawn, Gusmano, Dernberg). Shawn and Gusmano have been identified as being highly constrained, while Dernberg contains a natural bench which appears large enough to support two building sites and septic systems. This consolidation would result in two lots.

AP #114-100-80, 16, 17 (Western Title, Roushey, Lauritzen). Western Title been identified as a constrained lot, while Roushey is marginal. Laritzen is located on the uphill side of Pine Crest and appears to have no constraints to development. A problem with this consolidation is that Pine Crest Road runs through the middle of the newly created parcel. This consolidation would provide one lot.



2 NUMBER OF NEW LOTS

* BUILDING SITE

//// AUTHORIZED FOR PARK PURCHASE

LOT CONSOLIDATION PLAN

FIGURE 15

AP #114-100-33, 83, 84, 74, 57 (Michael, Adams, Western Title, Kendall, and Young). Michael is a long parcel with a building site near Pine Crest Road. The remaining parcels are the steep downslope parcels along Upper Roberts Road. This consolidation would result in one lot.

AP #114-100-73, 51 (Fukuda, Savage). There appears to be a building site and area for a septic system on parcel 51 (Savage) near Upper Roberts Road. The purpose of this consolidation would be to avoid having a long driveway up the face of the slope to the higher building sites. However, if the lower site proved to be infeasible after additional soils studies and a driveway were put in to the top of the property, then this area could support two lots. As proposed, this consolidation would result in one lot.

AP #114-110-17, 89 (Fisher, Chan). Fisher has been identified as having constraints to development of a septic system. The adjacent Chan parcel has an area large enough to support two building envelopes. This consolidation would result in two lots.

AP #114-110-85, 15 (Aster, Yurt). This proposal consolidates a lot designated as marginal (Aster) with one designated as unconstrained (Yurt) to result in one lot.

AP #114-130-37, 41 (West, Bluder). This proposal consolidates a lot identified as having a marginal ability to support a septic system (Bluder) with one classified as unconstrained. This consolidation would result in one lot.

AP #114-150-51, 14, 52 (Anderson, O'Conner, Western Title). This proposal would consolidate three lots into one lot. Anderson is a steep, highly constrained parcel. The Western Title parcel is one identified as being unbuildable by the consultant, because of its small size. O'Conner is a parcel that appears capable of supporting development. Both Western Title and O'Conner have been authorized for purchase by the National Park Service.

AP #114-130-25, 60 (Sommer, Falik). This proposal would combine a parcel identified as having potential problems in supporting a septic system (Sommer) with one identified as unconstrained. This consolidation would result in one lot. Both these parcels have been authorized for purchase by the National Park Service.

It is estimated that it would cost approximately \$1,777,000 to acquire the 24 lots involved in the proposed consolidation and that the replatted lots could be sold for approximately \$1,005,400. Therefore, the net cost to the Conservancy of this lot consolidation project would be approximately \$770,000. This estimate, prepared by Coastal Conservancy staff, is conservative, and may be high, since most of the lots proposed for consolidation have been identified as having severe constraints to development.

3.20 SUMMARY COMPARISON OF DEVELOPMENT CONSOLIDATION PROJECTS

<u>project type</u>	<u>Lots required for siting</u>	<u>development potential</u>
multi-unit housing	9	50-75 units
vest-pocket housing	21	30-42 units
commercial lodge facility	9	75-100 units
commercial cabin project	4	10-15 units
reduced density lot consolidation plan	24	11 units

From the outset of this study, Paradise Ranch Estates appeared to represent a likely candidate for Conservancy action. It was clear that the parcelization pattern and road layout of the subdivision would not meet today's standards for environmentally oriented community design. Although the large lots and relatively low, overall density of the subdivision reduce some potential impacts, the uniform distribution of parcels over the entire property and intrusion of roads and accessways in areas too steep for adequate road construction are detriments. Under more sensitive approaches to community design, cluster development would have been necessary to reduce the amount and extent of roadway and to provide concentrations of development in the gently sloping areas, allowing the more rugged areas to be deeded to common open space.

Under the powers of the Conservancy, a restoration plan held promise of redirecting future development toward the environmental benefits achievable through more sensitive subdivision layout and community design. As has been found in other feasibility studies of the Conservancy where substantial existing development has taken place, the evenly scattered development pattern of Paradise Ranch Estates precludes sweeping changes to the subdivision and minimized the opportunities available to the Conservancy. The analysis concluded that of the Development Consolidation type projects available to the Conservancy, the multi-unit housing type, commercial lodge and cabin types, and low density "vest-pocket" housing type are infeasible, while the marginal, benefits of the higher density "vest-pocket" housing type are offset by the additional development they would cause. The reduced density project does reduce total buildout, and eliminates lots identified as potentially having the greatest impact. However, this project would result in a net loss to the Conservancy.

4.00 OTHER PLANNING MEASURES

4.10 INTRODUCTION

In addition to the implementation of a development consolidation project, there are other actions that could be implemented by Marin County, the Coastal Conservancy and the community that individually or in concert could assist in ameliorating the problems of the Paradise Ranch Estates subdivision.

4.20 COUNTY REGULATORY APPROACH

Regulation of land development in Paradise Ranch Estates is now undertaken by the County of Marin under the police powers available to all local governments, and by the California Coastal Commission under the Coastal Act of 1976. Land use regulation under the Coastal Act will be transferred from the Coastal Commission to the County upon completion and certification of the Local Coastal Program. New regulatory techniques can be accomplished by the County under the mandate of the Coastal Act as an extension of its current regulatory responsibilities.

Reliance on County planning and regulatory powers is supported by the conclusion that potential environmental impact concerns of additional development may be partially mitigated by development performance standards which can be incorporated into the County's development review procedures. By strengthening County procedures and standards and focusing them on the special conditions present on Inverness Ridge and within the subdivision, future development can be guided physically to achieve a high level of environmental performance. The components of the County regulatory approach include plan administration and development review procedures, while additional regulatory techniques may also be considered. Each of these are discussed briefly below:

4.21 Plan Administration

General plan policy contained in the Marin Countywide Plan, the Inverness Ridge Communities Plan, and the Marin County Local Coastal Program provides the legal basis for all development policies governing future development of the subdivision. Administration of these plans is carried out through the project review process which assures that all development proposals are consistent with policy directives.

The Inverness Ridge Communities Plan sets the boundaries for development, establishes zoning within the subdivision, and provides direction as to the character of future land use.

The Local Coastal Program (LCP) contains numerous areas of policy satisfying the provisions of the Coastal Act: natural resources, agriculture, mariculture, fishing and boating, shoreline structures, diking, filling, dredging, recreation and visitor serving facilities, Federal park lands, new development, public trust lands, public services and public access. It is important to note that policy provisions adopted by the County for Paradise Ranch Estates will be incorporated as an amendment in the Local Coastal Program.

Policies of the LCP bearing on development within Paradise Ranch Estates are found in the Natural Resources, Public Services and New Development sections. Within the Natural Resources section, policies governing development in stream buffers will be applicable to portions of Paradise Ranch Estates. A stream buffer is on both sides of all perennial or intermittent streams mapped by the U.S.G.S. 7.5 minute quadrangle series. The definition provides that the buffer include all riparian vegetation and that "in no case shall the stream buffer be less than 100 feet in width on either side of the stream as measured from the stream bank." In the case of Paradise Ranch Estates, the consultant recommends the stream buffer zone be extended to the upper drainages of Fish Hatchery Creek as indicated by local topography and described by a buffer extending 100 feet in width on either side of the drainage. Within this buffer, policies of the LCP regarding (a) stream alterations, (b) conditions, and (c) development of stream buffers shall apply. (See Appendix B for detailed policy on streams and riparian habitats of the LCP.)

A public services policy of the LCP provides that prior to the issuance of a coastal development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public services and resources (i.e. water supply, sewage disposal, road access and capacity) are available to the proposed development. Lack of available services or resources shall be grounds for denial of the project.

Policy statements of the LCP regarding on-site sewage disposal systems should be noted. LCP policy declares that all septic systems shall meet the standards of the County as adopted by the Regional Water Quality Control Board and that no waiver shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring and enforcing the maintenance of the system in accordance with the criteria adopted by the Regional Board or in such other ways which have otherwise been reviewed and approved by the Regional Board. (See Appendix B for other applicable policies from the "New Development" section of the LCP).

4.22 Project Review Procedures

Various development standards and project review procedures are set forth in Title 22 of the Marin County code, Zoning, (Revisions to March 18, 1980), Title 20, Subdivisions (Revisions to March 18, 1980), Chapter 18.06 of the Marin County Code dealing with rules and regulations which established the minimum standards for individual sewage disposal systems, and the Building Code.

The development standards govern all critical aspects of lot development and building construction. The standards are comprehensive and include provisions dealing with the siting and layout of roads and structures, building design, environmental standards, required parking, roadway design, grading, landscaping and engineering of septic systems. Some standards are prescriptive; that is, they may identify specific minimum or maximum standards, e.g. building height. Other standards are more general and rely on judgments of the reviewing staff.

2. Protection of Visual Resources

- (a) In areas where structures may be seen from the adjacent parklands (primarily the north and south sides of the subdivision) structures shall be screened by the existing vegetation to the maximum extent possible. Structures shall not be higher than the tree canopy, even if Section 22.47.024(2)(e) of the Zoning Ordinance would otherwise permit taller buildings. The purpose of this measure is to prevent the presently tree-covered silhouette of the ridgeline from being broken up. In addition, the structures will be better screened.
- (b) In areas where structures may be visible, dark earthtones shall be used, to ensure the least amount of visual intrusion into the landscape.
- (c) To minimize grading and visual impacts from the adjacent parkland, future structures along Pine Crest Road and the upper stretches of Drakes View Drive shall be located within 150 feet of the front property line.
- (d) To minimize visual impacts on the adjacent parkland, structures on the northwest side of the subdivision (Pine Crest, Upper Roberts Road, and the upper stretches of Drakes View Drive) shall be oriented such that the shorter end of the structure faces the park, in order to ensure the maximum opportunity to take advantage of the existing tree cover.
- (e) Design Review of structures shall include an analyses of the visual impacts that might result from the siting and construction of the septic system. The septic system shall be designed and sited to minimize tree removal which could have a visual impact.
- (f) Use of colors and materials consistent with the woodland character of the subdivision and the vernacular building style of the area should be observed to avoid obtrusive visual impacts.

3. Public Service Guidelines. On-site paving and drainage improvements shall be required for all new structures. Off-site improvements may also be required in areas where roadways presently do not meet County standards. These areas include, but may not be limited to, the following:

- (a) Certain segments of Upper Roberts Road.
- (b) Douglas Drive adjacent to AP #114-130-34 and #114-130-24.
- (c) Dover Drive adjacent to AP #114-130-25.

If parcels that presently are not part of the Paradise Ranch Estates Permanent Road Division acquire access over the roadways in the subdivision in the future, joining the assessment district shall be made a condition of approval.

4. Watershed Protection

- (a) All policies in the LCP regarding blue line streams and adjacent lands shall be applicable in Paradise Ranch Estates. Streams affected by this policy include Tomlinson Creek, Fish Hatchery Creek, and the Central Drainage Channel.
- (b) Silt traps or other necessary erosion control measure shall be required for all new grading and construction. (This measure has been suggested by the Department of Fish and Game). (Also see below).

5. Grading and Erosion Control Guidelines. It is essential that grading be minimized in any new building area so that soils which are exposed during the construction process can be adequately revegetated and cuts avoided to minimize erosion. Erosion control practices should address management of surface water run-off to prevent gullyng through improper discharge of storm water from downspouts and paved areas and downstream transport of eroded sediments. Revegetation practices for erosion control should specify use of indigenous ground covers and seed mixes.

6. Protection of Trees.

- (a) Structures and roads should be sited to avoid tree removal. However, where it is necessary to clear existing vegetation, ecological principles of natural plant success should be observed. For instance, in some situations, the oak and fir woodland communities have taken over older stands of Bishop pine, and, in some cases, madrone. The latter may be diseased and dying, naturally giving way to successional change. In these circumstances, removal of the older diseased trees is desirable for siting purposes, thus promoting the succession of the younger, vigorous vegetation. However, dead trees also serve as valuable habitat for some species, so a complete removal should be avoided.
- (b) Landscaping should make use of indigenous, drought resistant species to the maximum extent possible.

4.30 MASTER PLAN DEVELOPMENT WITH CONSERVANCY SUPPORT

In some areas within the subdivision the development pattern results in numerous awkward development parcels where individual access is compromised as are available building and septic tank sites. Many of these situations could greatly benefit from small-scale cluster approaches in which access roads might be shared by neighbors and other site by site development problems remedied. It should be noted however that this approach may be limited to only a few locations since many unbuilt lots (especially those that are downslope from exiting roads) are best developed on a lot by lot basis.

One of the better examples of the benefits of the cluster approach is shown in vest-pocket site 3 where the problems of site access and potential environmental impact resulting from upslope driveway cuts from Sunnyside Drive could be avoided by placing all development on the gentle slopes above with access only from Drake's View Drive. Other areas are shown on Figure 16. Consideration of these cluster development opportunities could serve the interests of the individual property owners, greatly reduce potential for environmental impact, and represent a reasonable alternative to strict development controls designed to avoid environmental problems on a lot by lot basis. In these circumstances, the Conservancy could be useful in assisting in the optimum planning and development of the site.

Under this technique specific lots adjacent to one another could be assembled with the goal, not of reducing build-out, but with the goal of decreasing the adverse impacts of development by siting the dwellings permitted. This approach can be implemented by any of three means: the individual lot owners cooperating with one another; the role of a local land trust serving as "middleman," or the use of the Conservancy in that role.

The results would be most easily obtained by voluntary cooperation of the landowners. Assume for the sake of simplicity that two adjacent lots could be developed with a significant decrease in environmental impacts if the common parcel line is adjusted through overlapping easements or replotted. The two residences are then located differently than they would have been, given the existing lot lines, and a common driveway could be secured. The landowners could reach an agreement to jointly apply for a lot line adjustment under the County's subdivision ordinance, and include a Master Plan in a joint Design Review Application to carry out these changes in design.

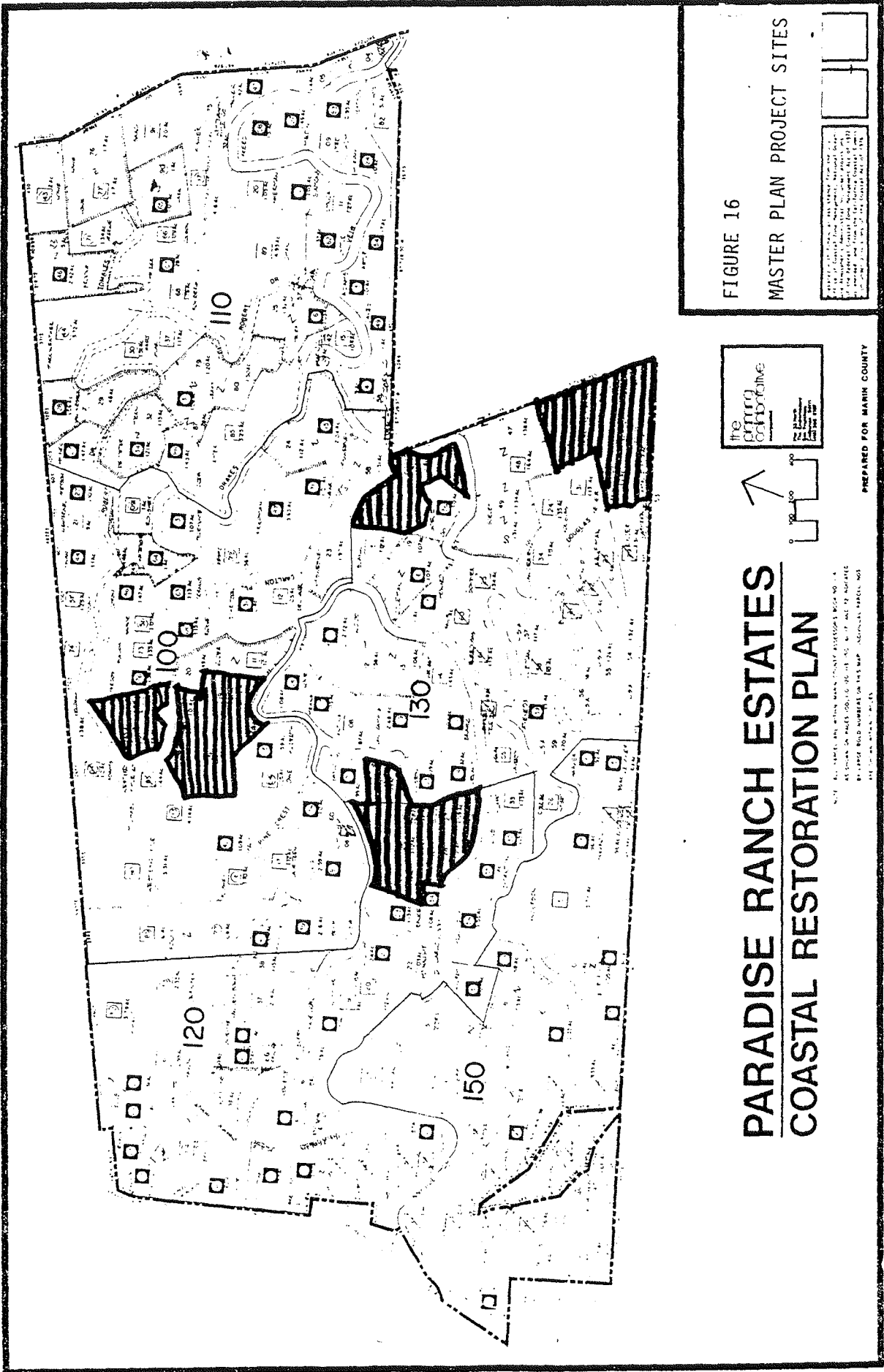


FIGURE 16

MASTER PLAN PROJECT SITES



PREPARED FOR MARIN COUNTY

PARADISE RANCH ESTATES COASTAL RESTORATION PLAN

NOT TO SCALE. SEE ATTACHED MAPS FOR DETAILED INFORMATION.
 ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MARIN COUNTY
 COASTAL RESTORATION PLAN AND THE MARIN COUNTY COASTAL
 ZONING ORDINANCE.

As the number of adjacent owners increases in a given cluster, however, the chances of achieving cooperation in the group decrease. A third party may then be useful, in the role of a "middleman." There are at least two ways in which this role can be arranged: first, the middleman can serve as an impartial arbitrator to help the owners reach a consensus. Or, the middleman can actually acquire the parcels, undertake the redesign, process the necessary applications, and then resell the sites giving the original owners the first right to purchase.

This can also be accomplished without money actually changing hands, with the middleman acquiring an option on the parcels for a nominal amount together with the right to process the necessary applications. The middleman can then sell the option to anyone wanting to purchase the new parcel--including "selling" it to the original owner should he want the new site.

The role of the middleman can be performed by either a local land trust, the Conservancy, or the County. A local land trust could undertake the arbitrator role with a minimal amount of financial investment. Where a situation required the purchase of the sites or the purchase of options the land trust would require more financial resources. However, since this type of activity would be somewhat unique, it might well appeal to private foundations which put priority upon innovative activities.

The Conservancy, or the County with a grant from the Conservancy, could also serve the role of the middleman. This activity is enabled by the Conservancy's legislation, described above. The Conservancy has not, to this date, undertaken a lot consolidation project consisting of the redesign of small clusters of sites to permit the same number of sites. However, such an approach would be expected to comply with the Conservancy's emphasis on breaking even in lot consolidation projects and desire to fund innovative approaches to coastal resource enhancement.

4.40 LOCAL NON-PROFIT LAND CONSERVATION TRUST WITH CONSERVANCY SUPPORT

A Local Non-Profit Land Trust is an organization locally-organized and run for the purpose of obtaining fee title or lesser interests in real property whose conservation for the public benefit the Trust considers important.

Local Land Trusts are formed for a variety of purposes, to conserve a variety of types of land and structure. The Marin Agricultural Land Trust, for example, was recently formed to preserve agricultural lands in Marin County. Other Local Land Trusts have been formed throughout the country to preserve historical structures, recreation areas, areas of ecological and environmental value, and other open areas. The geographic coverage of Trusts vary with the types of lands they wish to conserve. Trusts formed around a particular type of land, like agricultural land, may undertake projects in a relatively broad area. The Marin Agricultural Land Trust for example considers projects throughout the County. At the other end of the spectrum, groups have been initially formed to purchase a specific property, as in the case of the Homestead Valley Land Trust which purchased Stolte Grove in Homestead Valley.

In the case of Paradise Ranch Estates, a Trust could be formed to deal with parcels in that subdivision alone, or one could be formed to purchase such parcels throughout the Inverness Ridge Community, or a Trust could be formed to conserve a wider variety of lands around Tomales Bay.

4.41 Economic Considerations

The feasibility of a conservation land trust is primarily a matter of land purchase costs. The cost of purchases will be affected by the factors described earlier. The range of costs that might be incurred is shown in the table following which depicts the average cost of low and high lot sales and the cost range for purchasing 30 lots. (This number is suggested by the classification of 30 lots as having "serious" and "severe" building constraints.)

	<u>LOW</u>	<u>HIGH</u>
Average Cost per Lot	\$ 30,000	\$ 60,000
Cost for 30 Lots	\$ 900,000	\$1,800,000

The potential for lot purchases at the lower price may be greater if the purpose is to hold the parcel in open space than if the lot is to be built upon.

Also, the lot cost would be most likely near the lower end of the scale if the open space purchases were from willing sellers rather than from a designated list of

properties which were to be purchased using condemnation if necessary. The lower cost arises from two factors: the lots offered to the trust would tend to be those with the greatest development problems; and the trust would be able to deal only with those offering to sell at the lowest prices. This favorable situation would be likely if the primary purpose of the trust was to reduce the amount of development. If the trust were more oriented to purchasing specific parcels chosen, for example, on the basis of their scenic value, the negotiating leverage is not available.

4.42 Advantages of a Local Land Trust.

There are several advantages to purchase and management of interests in land resources by a local land trust as opposed to a public agency. These advantages revolve primarily around the local basis of the Land Trust. Because a Land Trust is comprised of local citizens it can frequently negotiate with landowners on a more personal level than a public agency, and therefore can frequently consummate acquisitions more quickly, more easily and on better terms. Because the Local Trust is typically a much smaller organization than a public agency it can also act more quickly to take advantage of situations where a quick acquisitions will prevent sensitive land resource from being sold for development, or will yield better terms due to a particular seller's situation. Finally, because a Local Land Trust is comprised of local citizens, Trust-owned land can be more sensitively managed, and problems and conflicts more quickly dealt with than with land owned by a public agency.

Local land trust ownership can yield important side important side benefits as well. In an era of general distrust of all levels of government, ownership of land by a locally-based Trust can encourage citizen participation in community affairs, foster an awareness of local land resources, and develop a sense of community responsibility for wise management of all its resources. At the same time, however, it must be pointed out that local control and participation may ignore the legitimate interests of the larger public in land resources if they are managed exclusively for parochial ends. The land trust would not have condemnation powers, but could offer tax advantages to willing sellers and/or donors.

4.43 Organization and Funding of a Land Trust.

To achieve these benefits a Local Land Trust requires an on-going commitment by local citizens, and adequate financial resources; at its inception, the Land Trust requires a group of citizens to organize, and incorporate. Typically a trust seeks designation as a non-profit organization under Section 501(c)(3) of the Internal Revenue Code to avoid the need to pay income taxes and as an added inducement to prospective land sellers. The Trust elects an initial set of Officers and Board of Directors and establishes operation policies and project priorities. One of the first steps is to begin obtaining adequate funding.

Land trusts look to a variety of sources for funds. They can establish dues or membership fees which typically support operations, but not land purchases. Trusts can apply for grants from foundations and other non-profit sources. At Paradise Ranch Estates, the appeal of the Trust would probably be greater if it encompasses all of the Inverness Ridge Community, or a broader variety of prospective lands than just the existing parcels in the subdivision. Trusts can further receive grants or loans and can contract to perform services with public agencies, such as the State Coastal Conservancy. Trusts can receive gifts of funds or real property interests, and may be designated as recipients of dedications of real property required as a condition of development permits by public land use regulatory agencies. Achieving Section 501(c)(3) status is particularly important relative to receiving gifts, because it enables the land trust to offer the donor the income tax deductions associated with giving a gift to a non-profit organization.

The Conservancy could provide technical assistance in drawing up the articles of incorporation and the by-laws of the trust. In addition to formation, the Conservancy could provide technical assistance to aid in the operation of the trust by providing training in negotiation techniques, real estate, and tax. One advantage of non-profit status is the ability of the trust to create tax shelters for the seller of land.

In addition to land acquisition funds, the trust would require start-up funds for postage, overhead, etc. A grant application to private foundations could be made for these administrative costs, or a voluntary contribution account could be set up to acquire funds for some start-up costs.

If formed, the Board of Directors of the trust should include representatives of both the homeowners and the lot owners associations, as well as other individuals, as deemed appropriate.

4.50 POTENTIAL ROLE OF A LOCAL LAND TRUST AND THE COASTAL CONSERVANCY IN THE FEDERAL LAND ACQUISITION PROGRAM

As noted previously, Federal legislation has authorized acquisition of additional parcels in Paradise Ranch Estates as a part of the Point Reyes National Seashore. Such acquisition serves to decrease the potential build-out of the subdivision. While this study has not assumed that such Federal acquisition will or will not take place, actions by the State Coastal Conservancy or a local land trust can serve to accelerate the transfer of the lots identified for Federal acquisition from private to public ownership.

The State Coastal Conservancy has the power to acquire and hold sites for subsequent conveyance to a state, local or non-profit agency or non-profit organization (Division 21, Chapter 8, Public Resources Code) for use consistent with the policies and objectives of the Coastal Act. The Conservancy may hold such lands for up to 10 years, and must sell them to the public agency or a non-profit organization for the acquisition cost plus administrative and management costs. The Conservancy has indicated, in evaluating past site reservation proposals, that it prefers situations in which a governmental agency or non-profit organization can commit itself to purchasing the site at a specific time and specific acquisition cost.

Should it appear that the Federal government would be unable to consummate its purchases for a few years due to funding limitations, the Conservancy could then purchase the lots and hold them for ultimate resale to the Federal government. Since the Conservancy's legislation only allows it to sell such lands to a state or local agency or non-profit organization, however, the purchase would need to pass first through a local trust or the County of Marin before reaching the Federal government. The benefit to this approach, should it be needed, is that public acquisition could be made immediately at current market values, instead of the increased market values probable at the time Federal funds became available. There would be a further benefit to the owners of the parcels proposed for acquisition in that they would not have to face the uncertainty of waiting for Federal purchase.

5.00 RECOMMENDED RESTORATION PLAN

Based on the analysis in this report, a composite Restoration Plan is recommended that combines several approaches. The Plan would rely heavily on the County's regulator power, supplemented by a request to the Conservancy to implement the reduced density lot consolidation project, to assist in the formation of a local land trust, to purchase lots already authorized for inclusion within the Point Reyes National Seashore boundaries, and to determine if other lots in the subdivision should be included within the boundaries of the park, and if so, to purchase these.

The purpose of this recommended plan is to effectively deal with the lots designated as constrained, and also to address problems associated with lots classified as marginal. A combined approach is recommended because no one approach appears to effectively address all the identified problems. By using the combined plan approach there are some areas of overlap, where a problem lot could be addressed in more than one way. This approach, however, does allow the maximum amount of flexibility.

5.10 COUNTY'S REGULATORY AUTHORITY

Strict application of the County's regulatory authority would include the design review guidelines recommended in the Design Review section. This approach also assumes strict implementation of LCP policies, including the policy of not allowing waivers from the septic ordinance. This policy of no-waiver would apply, for example, in areas proposed for a septic system that exceeds 40 percent slope or that are closer than 100 feet to a major drainage channel. This approach will probably prohibit development on some parcels, unless approval for a septic system were obtained from Regional Water Quality Control Board or a public agency accepted responsibility for monitoring and maintaining the system.

5.11 Merger Ordinance

The rezoning of the subdivision to RSP-0.25 in December, 1979 had the effect of merging approximately 59 parcels into 23 building sites. This reduction in density ameliorated potential cumulative impacts that could have occurred, especially since the mergers tended to occur in constrained areas. A total of 20 lots whose development is greatly reduced by merger are located in areas of severe limitations, and five are located in areas of moderate limitations.

The County merger ordinance acts to remove the development potential of several of the highly constrained lots that were identified in the on-site surveys. AP #114-100-85 (Foote) is merged to an already developed parcel. AP #114-150-08, 30, 31, 44, 45, and 46 (Anderson) are merged to parcel 09 which contains a structure. In both of these instances the merged parcels contain sufficient acreage to be eligible to apply for a land division; however, such an application would not be approved unless it met all the requirements of Title 20.

A legal remedy for the effects of the merger ordinance is the Certificate of Compliance section of Title 20, the Subdivision Ordinance. A Certificate of Compliance, which recognizes existing parcel lines, would be granted by the Planning Director after consideration of a number of factors, including: consistency with the Community plan, consistency with the requirements of the zoning ordinance, presence of all necessary utilities, presence of a building site, presence of the required frontage on a roadway.

As a result of formal notification of mergers in Paradise Ranch Estates, the Planning Department has received several applications for Certificates of Compliance (COC's). In some cases the lots do not meet the minimum lot size requirements, and thus would be inconsistent with both the zoning and the Inverness Ridge Communities Plan. Since COC's are a remedy from the effects of the merger ordinance, application can be made under Title 20 even if lots do not conform to the minimum lot size required by the zoning.

In order to provide policy direction when evaluating application for Certificates of Compliance in the Paradise Ranch Estates subdivision, it is recommended that the total merged acreage under one ownership be within 67 percent of the minimum size required by the zoning to be considered as consistent with the Community Plan.

5.12 Master Plan

AP #114-130-47, 48, 49, 50 (Goelet) are merged, vacant parcels. These parcels are contiguously held with a 50-acre parcel outside of the subdivision. Therefore, any application for development would require a master plan of the entire land holding. At the time a master plan application is considered, development would be placed in the most suitable location(s) on the entire landholding.

A Coastal permit was recently granted for the 50 acre parcel. This parcel, while not part of the Paradise Ranch Estates subdivision or the Permanent Road Division, takes access from Douglas Drive and also has access from a driveway on Drakes View Drive. As a condition of approval of the Coastal permit, the Coastal Commission required that the upper access road be paved and that either the lower access be stabilized and barricaded except for emergency vehicle use, or that it be improved to allow vehicular access.

5.13 Design Review

Section 4.23 of this report makes recommendations for special design review guidelines to be applied to this subdivision. These measures are designed to mitigate potential adverse impacts of continued development.

County ordinance presently requires design review for all new development in the subdivision. However, in cases where there are no major issues, such as minor additions to existing structures, design review can be waived by the Planning Director.

In addition to these proposed design review guidelines, it is suggested that the Paradise Ranch Estates Resident's Association, PRE Tomorrow or the Inverness Ridge Association be included in the Design Review process in an advisory role if they so desire. This role would be similar to that of Homeowner's Groups in other areas of the County.

5.20 REDUCED DENSITY LOT CONSOLIDATION PROJECT

It is recommended that the Coastal Conservancy be requested to implement the reduced density lot consolidation plan, which would consolidate 24 lots into 11 new building sites, as described in Section 3.16. This plan would reduce total buildout in the subdivision to 157 units.

It is recommended that if the Conservancy does undertake this lot consolidation program that the Conservancy makes every effort to accommodate affected property owners when the lots are reconveyed.

A part of this lot consolidation program would be the development of a roadway and drainage plan. This roadway and drainage plan should address erosion and siltation control and provision of emergency services, as well as detailing needed roadway improvements. The property owners of the area should be included in this planning process, since they have special knowledge of the problems in the area.

5.30 POTENTIAL ADDITIONAL PARK ACQUISITION

As described in Section 4.50, the Coastal Conservancy has the authority to purchase park lands and hold them for up to ten years under their Site Reservation Program. Twenty-eight lots have been authorized by the federal government for inclusion in the Point Reyes National Seashore, but funding for acquisition is not presently available. Therefore, it is recommended that the Conservancy purchase these lots.

If a development application is received on any lot presently included in the park boundaries, the County must process the application. However, the

County will refer any such application to the National Park Service for their comments. Furthermore, any approval will contain a statement notifying the applicant that the land is within the park boundary and could be acquired at a later date and that the owner would not be entitled to a reservation of use and occupancy.

In addition, the Conservancy should conduct an evaluation of the north and south boundaries of the subdivision to determine if additional parcels should be included within the park boundaries. The visual analysis conducted as a part of this study, in which Conservancy staff participated, could be used in this evaluation. If additional parcels are determined to be suitable for inclusion within park lands, the Conservancy should purchase these lots under the Site Reservation Program.

It is further recommended that the Coastal Conservancy provide technical assistance to aid the community in the formation and start-up operation of a local Land Trust, as described in Section 4.40. The purpose of the Trust would be to acquire and hold land for open space purpose. The area in which the Trust would operate would be determined at the time it was established.

5.40 ACTIONS BY THE COMMUNITY

In addition to actions to be taken to implement this plan by Marin County and by the Coastal Conservancy, the local community should also play a role in its implementation. The community would be involved in several areas.

The community would play a lead role in the establishment and operation of the local Land Trust. Preliminary conversations with community representatives have indicated a willingness to do this.

In addition, the community, through one of several organizations (PRE Resident's Association, PRE Tomorrow, or the Inverness Ridge Association), could serve an advisory role to the Planning Department staff in reviewing applications for Design Review and other development permit applications.

Perhaps most importantly, the community would be responsible for implementation of the roadway and drainage plan, once it is developed. The most logical vehicle for this implementation would be a continuation of the Permanent Road Division, which is scheduled to expire when present encumbrances are repaid.

APPENDIX A
STEPS IN A STATE COASTAL CONSERVANCY PROJECT *

If the State Coastal Conservancy were to undertake any of the projects investigated in this study the procedure below would be followed:

- (1) County Requests Conservancy Action on Restoration Plan. The County Board of Supervisors would first request that the Conservancy approve implementation of a Restoration Plan which included the acquisition of certain lots, and their redesign and platting for new residential development.

- (2) Conservancy Conducts Initial Landowner Contacts and Begins Appraisal. Conservancy staff would begin contacting owners of parcels for purchase, and would hire an appraisal of the parcel's fair market value.

- (3) Conservancy Approves the Plan for Submittal to Control Commission. The Conservancy's first action is to approve the restoration plan for submittal to the Coastal Commission (assuming that the Conservancy finds that it is a worthwhile project given the financial feasibility analysis and other policy considerations). Should the initial landowner contacts have shown that eminent domain proceedings may be required the Conservancy may require that the County undertake such proceedings if necessary.

- (4) Coastal Commission Approves Restoration Plan By statute the Coastal Commission must determine within 60 days of submittal whether the restoration plan is in conformance with the policies and objectives of the state's Coastal Act.

- (5) Conservancy Authorizes Project Implementation. Upon receipt of the Commission's findings that the Restoration Plan is in conformance with the Coastal Act the Conservancy authorizes project implementation. This includes authorization for staff to undertake any final design or engineering studies, and to acquire land.

*This description of the steps in the restoration project process is generalized; individual steps may occur in a different order

(6) Conservancy Conducts Developer Selection Process. If one or more of the new development sites were to be developed by one developer, as opposed to being sold entirely as individual lots to individual owners, Conservancy staff would solicit competitive bids, culminating in the Conservancy's selection of a developer.

(7) Lands Acquired from Willing Sellers. The Conservancy would negotiate the acquisition of the lands from willing sellers based on a fair market value appraisal of value. To enable sellers to ultimately live in Paradise Ranch Estates, should they desire, the Conservancy might offer sellers the right of first purchase of new lots or units in the consolidated development.

APPENDIX B

APPLICABLE POLICIES OF THE COUNTY LOCAL COASTAL PROGRAM

2. Water quality. The County encourages the Regional Water Quality Control Board, State Department of Health, and other responsible agencies to continue working on identifying sources of pollution in Tomales Bay and to take steps to eliminate them. LCP policies which address specific development-related water quality problems, such as septic system discharges, are contained in the LCP sections on Public Services and New Development. Other LCP policies on the location and concentration of development and protection of riparian habitats address water quality concerns from a broader perspective.
3. Streams and riparian habitats. The policies contained in this section shall apply to all streams in the Unit II coastal zone, perennial or intermittent, which are mapped by the United States Geological Survey (U.S.G.S.) on the 7.5 minute quadrangle series.
 - a. Stream alterations. Stream impoundments, diversions, channelizations, or other substantial alterations shall be limited to the following purposes:
 - (1) Necessary water supply projects, including those for domestic or agricultural purposes;
 - (2) Flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; or
 - (3) Developments where the primary function is the improvement of fish and wildlife habitat.

Before any such activities are permitted, minimum flows necessary to maintain fish habitat and water quality, and to protect downstream resources (e.g. riparian vegetation, groundwater recharge areas, receiving waters, spawning habitats, etc.) and downstream users shall be determined by the Department of Fish and Game and the Division of Water Rights of the State Water Resources Control Board. New impoundments which, individually or cumulatively, would decrease streamflows below the minimum shall not be permitted.

- b. Conditions. The alteration of streams allowed for the purposes listed in (a) above shall be held to a minimum to protect streamwater quality and the volume and rate of streamflow. All such developments shall incorporate the best mitigation measures feasible, including erosion and runoff control measures, and revegetation of disturbed areas with native species. Disturbance of riparian vegetation shall be held to a minimum.

- c. Stream buffers. Buffers to protect streams from the impacts of adjacent uses shall be established for each stream in Unit II. The stream buffer shall include the area covered by riparian vegetation on both sides of the stream and the area 50 feet landward from the edge of the riparian vegetation. In no case shall the stream buffer be less than 100 feet in width, on either side of the stream, as measured from the top of the stream banks.
- d. Development in stream buffers. Development activities within a stream buffer shall be limited to those specified in (a) above unless no other site is available, alternative sites present greater environmental constraints, or, in the case of agricultural uses, additions to existing uses such as barns are proposed which would be economically infeasible to construct elsewhere.

If a parcel is located entirely within a stream buffer, construction shall require design review and shall consider impacts of the proposed development on water quality, riparian vegetation, and the rate and volume of streamflow. In general, development shall be located on that portion of the parcel which results in the least impact on the stream. Mitigation measures shall be required to control erosion and runoff and to revegetate disturbed areas with native species.

3. Sewage disposal.

- a. On-site sewage disposal. All on-site sewage disposal systems in the coastal zone shall be evaluated as follows:
 - (1) Septic systems. All septic systems shall meet the standards contained in either the Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal System adopted by the Regional Water Quality Control Board on April 17, 1979 or the County's revised septic system code, when approved by the Regional Board. No waivers shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by the Regional Board, or such waivers have otherwise been reviewed and approved by the Regional Board. (See Appendix C)

5. Hazards

- a. An applicant for development in an area potentially subject to geologic or other hazards as mapped by the County, including Alquist Priolo earthquake hazards zones, areas subject to tsunami runup, landslides, liquefaction, beach or bluff erosion, steep slopes averaging greater than 35%, or flood hazard areas, shall be required to demonstrate that the area of construction is stable for development, the development will not create a hazard or diminish the stability of the area, and the development will not require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The applicant may be required to file a report by a qualified professional evaluating the geologic conditions of the site and the effect of the development. In addition, as a condition of coastal permit approval, the applicant shall be required to sign a waiver of liability exempting the County from liability for any personal or property damage caused by natural hazards on such properties.

- b. In coastal bluff areas, new structures shall be set back a sufficient distance from the bluff edge to ensure with reasonable certainty that they are not threatened by bluff retreat within their expected economic lifespans (50 years). The County shall determine the required setback based on information submitted by the applicant, staff investigation, and a geologic report which may be required. The setbacks will be of sufficient distance to eliminate the need for shoreline protective works.
 - c. Development of any kind beyond the required bluff-top setback shall be constructed to ensure that all surface and subsurface drainage shall not contribute to the erosion of the bluff face or the stability of the bluff itself. Surface water shall be directed away from the top of the bluff or handled in a manner which prevents damage to the bluff by surface and percolating water.
 - d. New development shall be sited and designed so that no protective shoreline structures (e.g. seawalls, groins, breakwaters) are or will be necessary to protect the building from erosion or storm damage during its expected economic lifespan (50 years). The applicant may be required to submit a professional geologic report demonstrating that the project conforms to this policy.
 - e. The County encourages PG&E to utilize materials for overhead utility lines which minimize fire hazards to surrounding areas.
6. Watershed and water quality protection/grading. In order to ensure the long-term preservation of water quality, protection of visual resources, and the prevention of hazards to life and property, the following policies shall apply to all construction and development, including grading and major vegetation removal, which involve the movement of earth in excess of 50 cubic yards.
- a. Development shall be designed to fit a site's topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading, cut and fill operations, and other site preparation are kept to an absolute minimum. Natural features, landforms, and native vegetation shall be preserved to the maximum extent feasible. Areas of a site which are not suited to development because of known soil, geologic, flood, erosion or other hazards shall be kept in open space.
 - b. For necessary grading operations, the smallest practicable area of land shall be exposed at any one time during development and the length of exposure shall be kept to the shortest practicable time. The clearing of land shall be avoided during the winter rainy season and all measures for removing sediments and stabilizing slopes shall be in place before the beginning of the rainy season.
 - c. Sediment basins (including debris basins, desilting basins, or silt traps) shall be installed on the project site in conjunction with initial grading operations and maintained through the development process to remove sediment from runoff waters. All sediment shall be retained on site unless removed to an appropriate dumping location.

- d. Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils which have been exposed during grading or development. Cut and fill slopes shall be stabilized immediately with plantings of native species, appropriate non-native plants, or with accepted landscaping practices.
- e. Where topsoil is removed by grading operations, it shall be stockpiled for reuse and shall be protected from compaction and wind or erosion during stockpiling.
- f. The extent of impervious surfaces shall be minimized to the greatest degree possible. Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accommodate increased runoff resulting from modified soil and surface conditions as a result of development. Grassed waterways are preferred to concrete storm drains, where feasible, for runoff conveyance. Water runoff beyond natural levels shall be retained on site whenever possible to facilitate groundwater recharge.

APPENDIX C

REPORT ON FIELD INVESTIGATION

Introduction

On February 10, 1981, the Marin County Board of Supervisors acted to extend the moratorium on building and subdivision in the Paradise Ranch Estates Subdivision on 43 parcels. The purpose of the moratorium was to allow time for a site-specific evaluation and visual analysis of various lots.

Lots were included in the moratorium, and therefore were included in this study, for several reasons: Those designated as severe in the Draft Paradise Ranch Estates Restoration Plan Study (18 lots), those designated as serious in said study (12 lots), lots designated as being within the Central Watershed and potentially able to be designated as severe or serious (8 lots), and lots in the northwestern section of the subdivision, on which a visual analysis from the adjacent parkland was desired (5 lots).

The Board of Supervisors directed that a visual analysis be done of the northwestern section of the subdivision (the Upper Roberts Road and Pine Crest Drive areas) and that an on-site survey be conducted for each of the lots upon which the moratorium had been extended, in order to further examine the ability of these lots to support development. This investigation supplements work that had been done in the Paradise Ranch Estates Restoration Plan Study, prepared by The Planning Collaborative.

In directing Planning Department and Public Works Staff to conduct this investigation, the Board of Supervisors directed that several agencies and groups be requested to participate in this Study. The participation of the following was requested: State Coastal Conservancy, North Coast Region Coastal Commission, Regional Water Quality Control Board, Paradise Ranch Estates Resident's Association, PRE Tomorrow and Environmental Action Committee. The purpose of this agency participation was to supplement and observe the analysis of Planning Department and Public Works staff. Allen Meacham of the State Coastal Commission participated on all three days of field work. Ed Bielski of the Regional Coastal Commission attended on Thursday, March 5th. The Resident's Association was represented by Bob Hildreth on Wednesday and Sally Behr on Thursday and Friday. PRE Tomorrow were represented on March 4th and 5th by Ann Hoffman, while Sue Jacob of Environmental Action Committee attended Thursday morning. The Regional Water Quality Control Board declined the opportunity to participate in the work. Carol Horowitz of the Planning Department and Don Walder of the Land Development section of Public Works represented Marin County.

The on-site inspection of each of the 43 lots was conducted on March 4th and 5th. The purpose of this assessment was to refine the work previously done by The Planning Collaborative by conducting a field investigation of lots that had been identified as having constraints to development. The determination of the ability of each lot to support development was based

on three criteria: access from the streets in the subdivision, presence of a feasible building site, and ability of the lot to support a septic system that conforms to Marin County Code. While all participants discussed the various sites, final determination of the status of each lot was made by Marin County staff.

In addition to the formal participants, notices were sent to affected property owners, advising them of the site visit and of their opportunity to be present if they desired. Various property owners did meet with the group on their properties.

It should be noted that the field investigation was based on surface reconnaissance only. The conclusions of this report may, therefore, be altered by sub-surface and/or engineering studies. It should be further noted that all of the studied lots fall entirely or partially within Slope Stability Zones 3 and 4, and, therefore, would require an engineering study as proposed in this Plan. All lots are classified as Zone 3 unless otherwise specified below.

Based upon the site specific survey, the parcels were classified in three general categories: unconstrained, marginal and highly constrained lots.

Unconstrained Lots

This category contains lots that appear, from the site survey, to have minimal apparent constraints to development. As noted above, a final determination of the ability of each lot to support development will depend upon site-specific engineering work that will be required at the time an application for a development permit is made to the County. Twenty-one lots fall in this category. In addition, this category contains two lots which are owned by the Federal government and which therefore have no further development potential.

AP #114-110-05 (Gall). This is a lineally shaped lot located at the entrance to Paradise Ranch Estates and sandwiched between Sir Francis Drake Boulevard and Drakes View Drive. Downslope access is easily attainable from Drakes View Drive. There is an area where slopes generally range from 15 to 20 percent, which is of sufficient size to accommodate a septic system. An adequate building site is located above the logical septic site, where slopes appear to be around 30 percent.

AP #114-110-89 (Chan). This is a large (approximately five-acre) parcel with a major drainage channel that parallels the northern property line. Despite the necessity to provide a setback of at least 100-feet from the creek for the septic system, there is a large relatively flat area near the southern end of the property that could accommodate a building site and septic system. Slopes in this area are approximately 20 percent. Access is available from Roberts Drive. The northern portion of this site is located in Zone 4.

AP#114-110-68 (Lowe). This parcel is somewhat more constrained than Chan's having approximately 30 percent slope in the area of the potential septic field and building site, and therefore would require an engineered septic system. There is also some evidence of slow surface slippage. A previously graded bench provides driveway access from Baywood Court.

AP #114-110-15 (Yurt). While this lot contains some steep areas, a house and septic system could be accommodated in an area where the slopes range from 20 to 30 percent. An engineered septic system would probably be required. The northern portion of this parcel is located in Zone 4.

AP #114-100-12 (DeI Valle). This lot has easily attainable access from Drakes View Drive. It has moderate slopes and could accommodate a septic system and building site. Care should be taken in siting any future driveway access to this parcel, since it is at the intersection of Drakes View Drive and Sunnyside Drive. This parcel is located in Zone 4.

AP #114-100-11 (Elder). Slopes on areas of this parcel range from 10 to 30 percent. An adequate area for a septic system and building site appears to exist. Access from Drakes View Drive is feasible; however, this parcel is located on a hairpin turn and there are some sight distance problems. This can be mitigated through careful siting of the driveway and a requirement that the understory brush be cleared as a condition of any future approval. This parcel has been determined to be merged with AP #114-100-20 by the Marin County Board of Supervisors. This parcel is located in Zone 4.

AP #114-130-08 (Vantuna). This parcel has easy access from Sunshine Court. Slopes are in the 10 to 20 percent range with building area and septic system easily accommodated. This parcel is located in Zone 4.

AP #114-100-62 (LaFore), AP #114-100-67 (Feist), and AP #114-100-68 (Cooke). These parcels are located on a knoll at the end of Upper Roberts Road. All parcels have moderate slopes. Each parcel has sufficient level area to accommodate a building site and septic system.

AP #114-100-32 (Michael). This is a long, rectangular parcel that has access from Pine Crest Road. There is a previously graded driveway. Sufficient area of moderate slope exists near Pine Crest Road to support a septic system and building site.

AP #114-120-53 (Dernberg). This parcel is located near the end of Pine Crest Road, which is narrow, unpaved, and overgrown at this point. A previously graded driveway extends to a natural bench, which is large enough to accommodate two building sites and septic systems.

AP #114-150-43, 49, 50 (Burger). These merged lots are located at the end of an extremely marginal road. There is, however, a reasonable building pad, area for car deck, and septic system. This lot has been authorized for park purchase in the Burton Bill. The lot is not included within the boundaries of the North Marin Water District, but it does appear to have a water meter.

AP #114-150-39 and AP #114-150-48 (U.S.A.). These two, non-contiguous parcels are both owned by the Federal government, and therefore have no further development potential.

AP #114-150-34 (Kingdom). This lot is surrounded on three sides by roads; access is feasible from either the upslope or downslope portion of the property. Slopes are in the 20 to 30 percent range, which would require an engineered septic system, but it appears one could be accommodated. A

feasible building site also exists. This lot has been authorized by Congress for inclusion in the National Seashore.

AP #114-150-33 (Dudley). This lot is also surrounded on three sides by roads. It is located on a ridge top. Portions of the property have bed-rock close to the surface, which would adversely affect the ability of the site to support a septic system. However, the eastern end of the property does appear to have adequate soil depth to support a septic system. The slope in this area is in the 25 to 30 percent range, which probably would require an engineered septic system. Access and a building site could be sited at various places on the property. This parcel has also been authorized for inclusion in the Federal park.

AP #114-150-27 (Hoffman). This parcel has a minor water course running through it; however it is large and has moderate (15-20 percent) slopes and therefore appears capable of supporting a septic system. Access and a building site are also feasible.

AP #114-120-28 (Singer). This site contains a previously graded driveway from Sunnyside Drive. The grade of this driveway appears to exceed 12 percent, which means that paving would be required at the time a building permit is issued. There is an area that would accommodate a septic system, with the slope ranging from 20 to 30 percent, which would require an engineered system. There appears to be several potential building sites on the property.

AP #114-130-05 (Lavery). The northwest corner of this lot has slopes of 15 to 20 percent. This area could easily provide access, building site, and septic system.

AP #114-130-61 (Burroughs). This lot has frontage on three sides. The most likely access would be from Dover, and would probably require a small retaining wall. Slopes range from 20 to 40 percent in this area, and a building site and engineered septic system appear feasible. This parcel has been authorized for park purchase by the Federal government. It is also the lot that was the subject of the Shinomiya coastal permit application.

AP #114-130-24 (Kougias). This parcel has a large, flat area with slopes of about five percent. Access from Douglas Drive can be attained. Sufficient flat area exists to accommodate a building site and septic system. The road leading to this parcel is in poor condition, and off-site road improvements may be required as conditions of any future approval.

AP #114-130-37 (West). This parcel is a panhandle lot with a driveway on the panhandle that serves the adjacent Goelet property. The driveway has a slope of about 20 percent, which would require paving. There is a feasible building site and a feasible septic area with slopes in the 30 to 35 percent range, which would require an engineered system.

Marginal Lots

Lots in this category are marginal (questionable) for one of a number of reasons. Usually the problem concerns the ability of the lot to support a septic system or reasonable access. There are nine lots in this category.

AP #114-110-85 (Aster). This parcel is located on Drakes View Drive, and is the location of a previous landslide. The major drainage course of the central watershed area drains the northernmost area of the site. There is an area on the southern portion of the site where access could be taken; an 8 to 10 foot retaining wall would be necessary, or a deck for parking could be provided. A feasible building site exists; however, the area available for septic system is classified as marginal or questionable because of size and slope. An engineered septic system may be required. This lot is classified as Zone 4.

AP #114-110-72 (Crespo). This lot has frontage on Drakes View Drive and Carlton Place. Access would have to be taken from Carlton Place. Two drainage swales preclude access from Drakes View Drive and complicate development of this parcel. There is an existing graded driveway on the parcel which may be wide enough to accommodate a developed driveway. If not, a retaining wall and fill may be necessary to provide an adequate driveway width. The site has adequate building and septic system areas. An engineered septic system would probably be required since the slope exceeds 30 percent. The majority of this lot is located in Zone 4.

AP #114-100-51 (Savage) and #114-100-73 (Fukuda). These are two adjacent lots on the uphill side of upper Roberts Road. They have similar constraints, although Savage is somewhat less steep than Fukuda. Both these parcels have a relatively flat area, partially formed by what appears to be an old logging trail, about two-thirds of the way up the property. In this area, both lots could support a building site and septic system. Slopes in this area on the Savage parcel are in the 25 to 30 percent range, and on the Fukuda parcel are 30 to 40 percent; both parcels would probably require an engineered septic system. In order to reach these developable areas, substantial cuts with switchbacks would be required for the driveways in order to meet the standards of Marin County Code. This problem could be mitigated somewhat by a combined driveway, which both property owners have indicated they are interested in doing. Even with a combined driveway, however, a substantial amount of grading would be necessary because of the slope. Savage appears to have a potential alternative building site in the northeast corner of the lot, near Upper Roberts Road and an existing house on an adjacent property.

A.P. #114-100-74 (Kendall). This parcel is located on the downslope side of Upper Roberts Road, in the sensitive Tomlinson Creek Watershed. Slopes over most of this lot range from 40 to 60 percent, with some areas in excess of 60 percent. There is an artificially created bench on the southwest side of the property, which could probably support a driveway and building site. Two areas, near the center and eastern portion of the property, respectively, are, relatively speaking, of a somewhat flatter nature, ranging from 35 to 40 percent in slope. These would appear to be the only areas capable of supporting a septic system, if all the requirements of the septic ordinance can be met. If more precise measurements determine that the slope of at least one of these areas is under 40 percent, then a waiver of the septic ordinance would not be necessary, but a fairly lengthy pipeline would be necessary to conduct sewage effluent from the probable building site to the possible septic field location.

A.P. #114-100-16 (Roushey). This parcel is a downslope lot with access from Pine Crest Road. Access and a building site exist by virtue of a previous grading on the property. However, a septic system would have to be located in either the southeast or southwest corner of the lot, and it is questionable whether sufficient flat area exists to accommodate this. The slope in this area ranges from 20 to 30 percent, which would probably require an engineered system.

AP #114-130-58 (Lubman). This is a downslope lot with access from the eastern extension of Dover. The road fronting the site is in particularly poor condition, with slopes at approximately 18 to 20 percent. A drainage course runs through the western portion of the property, limiting the available area for septic system. The most gentle slopes on the lot appear to be at about 40 percent, approaching the point at which a waiver from the septic ordinance would be necessary. An engineered septic system would be required. Access could be provided by a car deck at the property line with a house supported on poles. This lot has been authorized for inclusion in the Point Reyes National Seashore.

AP #114-130-25 (Sommer). This parcel has frontage on three sides of the lot, fronting both Douglas Drive and the eastern end of Dover Road. The only feasible access appears to be from Dover Road, near where it makes a hairpin turn. In this area a house on the upslope portion of the lot with a garage underneath appears to be feasible. The area available for septic system is very limited, making future development of this lot questionable. If further engineering work indicates that a septic system could be accommodated, the section of Dover Road along the Western property line should be required to be filled in and replanted, since it is in very poor condition and is not necessary for access to other parcels. This lot has been authorized for inclusion in the Point Reyes National Seashore.

AP #114-130-41 (Bluder). This lot is adjacent to West (AP #114-130-37), discussed above. It has an easement over West's panhandle. Access via this easement is preferable to that from Douglas Drive, which would require steep cut banks. Access from the easement would require a car deck and pole house in an area with slopes approximately 40 percent. At the bottom of the lot there are slopes in the 25 percent range, which could probably accommodate a septic system, if the required setback from the road cut can be maintained. An engineered septic system would be required.

Constrained Lots

All of these lots are extremely steep and many contain major drainage courses. It appears that none of the lots in this category could support a septic system, unless a waiver from the requirements of the septic ordinance were obtained. The recently adopted Local Coastal Plan for Unit II has a policy that states: "No waiver shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by the Regional (Water Quality control) Board, or such waivers have otherwise been reviewed and approved by the Regional Board."

In addition to the limitations on the ability of the site to support a septic system, access to most of these parcels would have to be with a car deck set close to or on the property line, and structures would be pole houses. There are 11 lots in this highly constrained category.

AP #114-110-17 (Fisher). This is a rectangular parcel, 200 feet wide by 1000 feet long, with a major drainage course running the length of the parcel. This parcel is not a part of the Paradise Ranch Estates Subdivision, but was included within the scope of the Paradise Ranch Estates Restoration Plan Study because of its geographic location. An encroachment permit from the Marin County Department of Public Works was obtained several months ago, to allow driveway access from Sir Francis Drake Boulevard. A building site and access could be provided adjacent to Sir Francis Drake. Because of the drainage channel, fitting a septic system that meets the requirements of Marin County Code may be difficult. The property owner's engineer has determined that an engineered septic system can be accommodated on the southwest portion of the property. This site would probably require pumping effluent uphill approximately 600 feet and across the drainage channel. Final determination of the feasibility of this system will depend upon percolation tests. The western portion of this site is located in Zone 4.

AP #114-100-57 (Young), AP #114-100-84 (Adams), AP #114-100-83 (Western Title). These three parcels are located on the downslope side of Upper Roberts Road. All parcels are extremely steep, with some minor benching on the Young parcel, which is formed by what is probably an old logging road. Any septic system would require a waiver from the septic ordinance because of the steep slopes, which exceed 40 percent. Access would be obtained from the car decks close to or on the property line, with houses supported on poles. These parcels may have been authorized for inclusion in the park system by the federal government; however, the National Park Service has not been able to make a final determination on this matter.

AP #114-100-80 (Western Title). This lot also contains slopes in excess of 40 percent. Tomlinson Creek parallels the northern property line. As in the parcels discussed above, accommodating a structure would be quite difficult; also, any septic system would require a waiver from the septic ordinance. Legal access exists over an existing overgrown trail which would require substantial work to reconstruct.

AP #114-100-85 (Foote). This parcel is one that staff contends is merged to an adjacent developed lot. The Planning Commission has not yet acted on this merger, and the property owner has applied for a Certificate of Compliance to create two lots from his holdings. This parcel is a panhandle lot, widening toward the northern end of the subdivision. The northern portion of the lot contains Tomlinson Creek. The panhandle area is relatively flat, but a minor drainage channel is located through the middle, thus severely restricting the area available for both a building site and septic system.

AP #114-120-52 (Gusmano) and AP #114-120-62 (Shawn). These adjacent parcels are located at the end of Pine Crest Road, which is an overgrown trail at this point. Both parcels have average slopes exceeding 40 percent and both contain a major drainage channel that carries the headwaters of the Tomlinson Creek. Fitting a septic system on these parcels would be extremely difficult and would probably require a waiver of the septic ordinance for both slope and setback from a drainage channel. In addition, any residence would be a pole house overhanging Tomlinson Creek, although there does exist the possibility that Shawn could fit a residence on the pad that presently is Pine Crest Road.

AP #114-150-08,09,30,31,44,45,46 (Anderson). These parcels are merged and a house is located on parcel 09. The remaining section of the property is extremely steep, with a canyon developing through parcels 44,45, and 46. These latter three parcels have been authorized for purchase by the Federal government. Because of the steep slopes, there is no apparent additional area to support either a septic system or building site, with the possible exception of a small area on parcel 08 near the existing house. This lot consists of over 11 acres and therefore meets the minimum size to qualify for a land division. However, it appears unlikely that this site could meet the other requirements of the subdivision ordinance.

AP #114-150-51 (Anderson). This is a large (5 acres) parcel characterized by steep slopes and a major drainage course through the center. It appears unlikely that the site could support a septic system; because of the steep slopes (over 40 percent) any septic system would require a waiver. The only feasible access and building site would be a car deck and structure supported on poles.

AP #114-130-47,48,49,50 (Goelet). These four Assessor's Parcels are merged into one lot. All of this lot is extremely steep. It contains a major drainage course. Any building would have to be supported on poles. Because of the steep slope and drainage channel, the ability of this site to support a septic system is questionable.

APPENDIX D

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APPENDIX E

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