

Phil

MONTEREY COUNTY, CALIFORNIA

NORTH COUNTY LAND USE PLAN



HT
168
.C2
M66
1987

LOCAL COASTAL PROGRAM

CERTIFIED JUNE 1982

HT168.C2 M66 1987

MONTEREY COUNTY, CALIFORNIA
NORTH COUNTY LAND USE PLAN
LOCAL COASTAL PROGRAM

ADOPTED BY THE MONTEREY COUNTY
BOARD OF SUPERVISORS 2-10-81

Marc Del Piero, Chairman
Michal Moore
William Peters

Dusan Petrovic
Barbara Shipnuck

ADOPTED BY THE MONTEREY COUNTY
PLANNING COMMISSION 12-10-80

Peter Cailotto, Chairman
Walter Basham
Marc del Piero
Manuel Jimenez
Sherry Owen

William Peters
Calvin Reaves
Joseph F. Sullivan
S. Gary Varga

ADOPTED BY THE BOARD OF SUPERVISORS
APRIL 28, 1982

CERTIFIED BY THE CALIFORNIA COASTAL COMMISSION
JUNE 4, 1982

AMENDMENTS CERTIFIED BY THE CALIFORNIA COASTAL COMMISSION
AND ADOPTED BY THE BOARD OF SUPERVISORS
MAY 19, 1987

MONTEREY COUNTY, CALIFORNIA
NORTH COUNTY LAND USE PLAN
LOCAL COASTAL PROGRAM

PREPARED BY THE MONTEREY COUNTY
PLANNING DEPARTMENT

Assisted by the Staff of the
California Coastal Commission
Central Coast District Office

Principal Participating Staff:

Edward W. DeMars, Planning
Director
Ray Lamb, Assistant Planning
Director
Bill Farrel, Principal Planner
LCP Project
Coordinator
Michael Hitchcock, Project
Planner

Edward Brown, District Director
Michael Miller, Chief Planner
Les Strnad, Lead LCP Planner
Victor Roth, LCP Planner
and
Devon Bates, State Office,
Co-Planner

Other Participating Staff:

Ernest J. Franco
Susan Hilinski
Michael J. King

Consultants:

Edward Mercurio
Thomas Dickert, Principal
Investigator
Andrea Tuttle, Associate
Martha Bean, Associate
University of California,
Berkeley
Jefferson Associates, Inc.
Ecological Analysts, Inc.
United States Geologic Survey

Graphics:

Jim DiMaggio
Steve Early

Typing:

Carmelia Moon
Rosalba M. Johnson

This document was prepared with financial assistance from the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under the provisions of the Federal Coastal Zone Management Act of 1972 as amended, and from the California Coastal Commission, under the provisions of the California Coastal Act of 1976.

ACKNOWLEDGMENTS

The preparation of this plan involved numerous individuals and public agencies who generously shared their time and expertise. Special thanks are given to members of the North County Local Coastal Program Citizens Advisory Committee (CAC) who devoted seemingly endless hours to guiding the preparation of a land use plan responsive to community concerns as well as Coastal Act requirements. Appointed by the County Planning Commission to provide basic policy guidance to the development of the plan, the CAC held 34 public meetings over a year and a half period to evaluate and discuss background reports, planning issues and policy recommendations. Numerous additional subcommittee meetings were held. The CAC's recommendations provided the primary vehicle for recognizing and incorporating community concerns and objectives in the plan. Appreciation is gratefully extended to all the members of the Citizens Advisory Committee:

Warren Church - Chairman
Doris Larson
Ben Meninga
Mary Jane Morton
Russ Muhlenhaupt
Robert Oleson
John Oliver
Granville Perkins
Michael Reilly
John Warriner
Charles Williamson
Bill Wimmer
Pat Young

Clyde Gailey - Vice-Chairman
Maureen Boudier
Louis Calcagno
Dave Cruysen
John Hansen
Jim Hardwick
Clarence Harmon
Bob Harris
Pete Herrlich
Delbert Herschbach
Foster Hutchings
Bill Jackson
Wayne Bloomer

Following a hearing on the land use plan before the Central Coast Regional Commission, a special committee was formed jointly by the Regional and State Coastal Commissions and the County Board of Supervisors to review coastal planning issues and to resolve potential conflicts between the plan and the requirements of the Coastal Act. Former Regional Coastal Commissioners Eleanor Taylor and Zad Leavy, Planning Commissioner Louis Calcagno and Supervisor Marc del Piero gave tirelessly of their time for six months to explore and recommend solutions to outstanding issues and to direct the work of the County and Coastal Commission staffs. The committee is commended for its success in resolving difficult issues and providing an essential bridge between county and state objectives.

Special thanks is also extended to the numerous local, state and federal agencies who participated throughout the North County Local Coastal Program planning process. The Monterey County Department of Public Works, the Department of Environmental Health, the County Counsel's Office and the Monterey County Flood Control and Water Conservation District and other county agencies provided day-to-day advice and guidance to the Planning Department staff and helped immeasurably with the completion of the plan. The California Department of Fish and Game, California Department of Parks and Recreation, Caltrans, U. S. Fish and Wildlife Service and the Moss Landing Harbor District contributed substantial background information to support the plan and provided valuable insight into their management concerns and objectives.

Several consultants contributed to the plan and provided special expertise in their respective areas. Edward Mercurio conducted original field research to identify and map sensitive plant habitats of the North County Coastal Zone. Bill Ziebron of Jefferson Associates established the basic framework for the Moss Landing Community Plan. The staff of the U. S. Geological Survey evaluated the groundwater resources of North County and provided a basis for the water supply policies contained in the plan. Special recognition is given to Tom Dickert of the University of California, Sea Grant Program and his associates, Andrea Tuttle and Martha Bean, for their pioneering work in developing solutions to soil erosion problems in North County and to their generous assistance to the County and Coastal Commission that extended far beyond their contract.

Many other agencies and individuals too numerous to list have contributed to the development of this plan and helped to ensure its success. Sincere thanks is given to everyone who participated in the North County LCP planning process.

TABLE OF CONTENTS

1.	INTRODUCTION	
1.1	The Coastal Act	1
1.2	The Local Coastal Program	2
1.3	Citizen Participation	3
1.4	Past and Present Planning	4
2.	RESOURCE MANAGEMENT	
2.1	Introduction	5
2.2	Visual Resources	6
2.3	Environmentally Sensitive Habitats	9
2.4	Diking, Dredging, Filling, and Shoreline Structures	18
2.5	Water Resources	22
2.6	Agriculture	37
2.7	Aquaculture	43
2.8	Hazards	44
2.9	Archaeological Resources	51
3.	PUBLIC SERVICE SYSTEM	
3.1	Transportation	53
3.2	Wastewater Management Facilities	56
4.	LAND USE AND DEVELOPMENT	
4.1	Introduction	60
4.2	Land Use Planning Issues	63
4.3	Land Use Plan and Development Policies	63
5.	MOSS LANDING COMMUNITY PLAN	
5.1	Background	81
5.2	Land Use, Circulation, and Wastewater Treatment	81
5.3	Commercial Fishing and Recreational Boating	93
5.4	Recreation and Public Access	99
5.5	Energy Facilities and Industrial Development	103
5.6	Visual Resources and Community Character	109
6.	PUBLIC ACCESS	
6.1	Introduction	113
6.2	Key Policy	114
6.3	General Policies	114
6.4	Specific Policies	115

TABLE OF CONTENTS (CONTINUED)

7. IMPLEMENTATION

7.1	Introduction	132
7.2	Basic Procedures	132
7.3	Additional Procedures	137

APPENDICES

Appendix A:	Computation of Land Disturbance (Bareground)	A-1
Appendix B:	Glossary of Terms	B-1
Appendix C:	Amendments to the North County Land Use Plan	C-1

LIST OF TABLES

Table 1:	Land Disturbance Targets by Subwatershed	36
Table 2:	Site-Specific Recommendations for Access Areas	129

LIST OF FIGURES

Figure 1:	Proposed Land Use	68
Figure 2:	Moss Landing Community Plan	92
Figure 3:	Harbor Development Phasing Program	96
Figure 4:	Public Access and Recreation	101
Figure 5:	Energy and Industrial Development	108
Figure 6:	Shoreline Access/Trails	124

1. INTRODUCTION

1.1 THE COASTAL ACT

The Coastal Act was passed by the State Legislature in 1976, and it came into effect on January 1, 1977. The Act replaced the original Coastal Act, Proposition 20, an initiative passed in 1972. In adopting the Act, the Legislature declared that its basic goals were to:

- (a) Protect, maintain and, where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural and man-made resources.
- (b) Assure orderly, balanced utilization and conservation of Coastal Zone resources taking into account the social and economic needs of the people of the State.
- (c) Maximize public access to and along the coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners.
- (d) Assure priority for coastal-dependent development over other development on the coast.
- (e) Encourage State and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including education uses, in the Coastal Zone.

The Act established a framework for resolving conflicts among competing uses for limited coastal lands. The highest priority is placed upon the preservation and protection of natural resources including environmentally sensitive habitat areas, i.e., wetlands, dunes, and other areas with rare, endangered, or threatened plant and animal life. In the case of habitat areas, only uses dependent on these resources are allowed within such areas. For agricultural land, the intent of the Act is to keep the maximum amount of prime land in production. On lands not suited for agricultural use, coastal-dependent development (i.e., development that requires a site on or adjacent to the sea for its operation) has the highest priority. Public recreational uses have priority on coastal sites which are not habitat areas and not needed for coastal-dependent uses. For sites that are not reserved for habitat preservation, agriculture, coastal-dependent uses or public recreation, other types of development are permitted. However, visitor-serving commercial recreation has priority over private residential, general industrial and general commercial development. These priorities must be reflected in the land use plans prepared as part of the Local Coastal Program.

1.2 THE LOCAL COASTAL PROGRAM

The Coastal Act provides that its goals and policies are to be carried out by local government through a process of comprehensive and coordinated planning known as the Local Coastal Program (LCP). Each of the 15 counties and 53 cities along the coast are required to prepare an LCP for that portion of their jurisdiction within the coastal zone. The LCP is defined in Section 30108.6 of the Act as the local government's land use plans and implementing actions which, when taken together, meet the requirements of, and implement the policies of the Act at the local level. When completed and approved by the local governing body, the LCP must be submitted to the Regional and State Coastal Commissions for certification. Once the LCP is certified, the local government assume full permit authority for developments within the coastal zone.

The State Coastal Commission will continue to exercise permit jurisdiction over developments in the State Tidelands and will continue to hear appeals and review amendments to certified LCP's. The State Commission is also required to review periodically the progress of local governments in carrying out the Coastal Act. This review is to occur at least once every five years.

The Local Coastal Program of Monterey County has consisted of three phases:

- Phase I Identification of coastal planning issues, defined as potential conflicts between Coastal Act policies and existing conditions, plans, and proposed uses. Preparation of a work program setting forth tasks necessary to resolve issues, and the establishment of work schedules and budgets and grant requests.
- Phase II Preparation, adoption and certification of the Coastal Land Use Plan (this document).
- Phase III Preparation, adoption and certification of Implementing Actions, including zoning ordinances, zoning district maps, and other programs necessary to carry out the Land Use Plan and supporting policies.

The coastal zone of Monterey County was divided into four segments for purposes of preparing plans that reflect the areas' distinctly different characters. The segments are North County, Big Sur, Carmel and Del Monte Forest. The North County segment includes the unincorporated area of the coastal zone from the Marina City limits to the Santa Cruz County boundary at the Pajaro River. The coastal zone extends inland to the legal limit, nearly to Highway 101, in order to include as much as possible of the Elkhorn Slough watershed.

Phase I for North County was completed and adopted by the County June 13, 1978, and was approved by the Coastal Commission on April 4, 1979. Preparation of the land use plan was preceded by the completion and distribution of numerous background reports on topics addressing coastal planning issues. These were reviewed by public agencies, interested citizens, and the North County Local Coastal Program Citizen's Advisory Committee. The background reports and the numerous comments and responses to them by individuals and agencies are on file at the County Planning Department. These can be consulted concerning the justification for the plan's policies or for more detailed information about the North County Coastal Zone's natural and cultural environment. However, the background reports are not policy documents; the policies that constitute the North County Land Use Plan are contained entirely within this document.

In addition to this document, a Resource Map Book dated March 1982, is adopted as a technical appendix to this plan. The Resource Map Book contains a variety of maps showing the general location of natural resources of the North County coastal zone, hazards and constraints to development, and other information such as the locations of governmental jurisdictions and special districts. The intended use of the Resource Maps which are available at the County Planning Department at 2000' scale, is to generally illustrate the application of policies of the plan and to assist individuals, the County and other public agencies in planning or reviewing development proposals in the Coastal Zone. The County, in incorporating these maps into the plan, acknowledges that they are not definitive and may contain errors or inaccuracies or may be incomplete. Thus, there is no substitute for careful field checking by qualified persons to verify the location of coastal resources or other information represented in the Resource Map Book. The County encourages challenges to the accuracy of the maps in a continuing effort to maintain the best data possible. As new or more accurate information becomes available, the 2000' scale maps will be revised and updated, and decisions will accordingly be based on the new data.

1.3 CITIZEN PARTICIPATION

Throughout the process of developing the Local Coastal Program for North Monterey County, local citizens were involved in regular public meetings and hearings. The North County Local Coastal Program Citizen's Advisory Committee (CAC) was the main focus of citizen input to the program. Regular meetings of the CAC were held over a period of a year and a half to discuss background reports, planning issues, and goals for the community. All scheduled meetings were advertised by local newspapers and radio stations to encourage public attendance. The CAC evaluated policy recommendations contained in background reports and recommended amendments. These are contained in a separate report which, along with comments by private citizens

and public agencies, is on file at the County Planning Department.

1.4 PAST AND PRESENT PLANNING

During the last 25 years, several land use plans have been adopted for different areas of North County. These have included the Moss Landing Area Development Plan (1956), the North County General Plan (1964), the Marina Master Plan (1967), the Moss Landing Area Development Plan (1973), and the Castroville General Plan (1973). The Local Coastal Program Land Use Plan contained in this document, supercedes within the coastal zone, the plan that has been in effect prior to certification of this plan. A comprehensive countywide general plan revision is now being prepared to update the Monterey County General Plan of 1968. The North County segment of the coastal zone contains roughly one-half the land in the North County General Plan Revision Area. This plan constitutes the first major step in completing the general plan revision for North County.

2. RESOURCE MANAGEMENT

2.1 INTRODUCTION

North County has a variety of valuable natural resources which present a need for effective resource management. Elkhorn Slough, one of California's principal remaining estuaries, is the most significant natural feature of the area. Other valuable wetlands such as Bennett Slough, Struve Pond, Old Salinas River Channel, and the Salinas Lagoon also contain biologically important habitats. The broad beaches and dunes which line the coast of Monterey Bay present another valuable resource. The area east of Elkhorn Slough with its oak and chaparral-covered hills and numerous small canyons and valleys is a resource that has been affected by extensive land clearing and erosion. The need for effective management of these areas is important to protect the abundance and diversity of their natural resources, many of which are sensitive to disturbance and have been degraded in the past due to erosion and land use practices.

Effective resource management will be increasingly vital in protecting the coast's natural resources as stressed in the California Coastal Act of 1976. Areas of scenic value, environmentally sensitive habitats, prime agricultural value, unique communities, and areas of high geologic or fire hazard will require special attention in order to protect the public welfare and preserve the delicate natural balance upon which many of the resources depend. Accordingly, any allowed development in or near these resource areas must be properly located and designed.

In past years, some development and land use practices have been insensitive to the resources of this area. The intensity of residential development in areas with no community sewer or water service has in some cases lead to public health hazards and contaminated groundwater. Saltwater intrusion from Monterey Bay into the groundwater due to overdrafting the aquifers has become a major concern. The interaction of tidal waters and surface water in the sloughs has been severely altered in some cases through construction of tidegates, levees, and fills. Some areas have suffered visual degradation due to alteration of attractive natural landforms and, in some cases, poor siting and screening of intensive land uses.

Although there is no urban center in the North County Coastal Zone, development has been fairly steady because the area is attractive to families desiring homes in a rural atmosphere. Development pressures persist. Some areas, those with existing or proposed public services, will be appropriate for intensive development in future years. However, much of North County is not appropriate for such development due to the sensitivity of its natural resources which may not tolerate continued encroachment of residential development. Policies set forth in this

plan are intended to protect the vast resources of this area through sensitive and responsive land use, development, and conservation.

2.2 VISUAL RESOURCES

Appreciation of the scenic aspects of North County is growing. Some roads in the area have been designated as scenic highways; scenic easements and scenic lands have been acquired by the state and local governments; design review and scenic conservation and special treatment zoning classifications have been implemented. These actions, and others, demonstrate a concern for the future of the visual qualities of the North County area.

Requirements of the Coastal Act of 1976 focus on the protection of scenic resources, particularly those along the coastline. It stresses that any development permitted in scenic areas should be sited and designed to be visually compatible and subordinate to the natural setting. Alteration of natural landforms and degradation of the special communities which serve as popular recreation areas should be minimized.

Particularly susceptible to visual damages due to inappropriate development are the beaches, the dunes, the low areas adjacent to the sloughs, and the ridgelines. All of these areas are highly visible from long distances and from several points; they rely on unbroken horizontal lines for continuity; and they generally are composites of scenic ingredients such as landform, water, and varieties of vegetation.

North County's scenic resources are plentiful in its beaches and dunes, estuaries and wetlands, hills and ridgelines, and in its cultural, historic, and architectural sites. Some of these resources have suffered abuses in the form of siting of development, erosion, land clearing, and pollution in past years. Restoration of degraded sites, especially those with high visibility, should be a community priority.

Access to some of the best vista points is limited - either distant from a highway, or with no public access. Opening up access to the viewsheds is a possibility but must be considered with caution, because often it is the presence of too many cars and people which threatens both the visual resources and the area's environmentally sensitive habitats.

Expansion of present programs and policies and determination of location and relative value of the North County scenic resources can provide the framework for execution of the Coastal Act policies. Protection of these resources from inappropriate development will benefit the entire region as well as the community itself.

2.2.1 Key Policy

In order to protect the visual resources of North County, development should be prohibited to the fullest extent possible in beach, dune, estuary, and wetland areas. Only low intensity development that can be sited, screened, or designed to minimize visual impacts, shall be allowed on scenic hills, slopes, and ridgelines.

2.2.2 General Policy

1. Views to and along the ocean shoreline from Highway One, Molera Road, Struve Road and public beaches, and to and along the shoreline of Elkhorn Slough from public vantage points shall be protected.
2. The coastal dunes and beaches, estuaries, and wetlands, should be designated for recreation or environmental conservation land uses that are compatible with protection of scenic resources. Facilities that are provided to accompany such uses shall be designed and sited to be unobtrusive and compatible with the visual character of the area.
3. Property containing land on scenic slopes, hills, and ridgelines when proposed for subdivision, should be subdivided so that the lots are situated to allow the highest potential for screening development and access roads from view. Lots and access roads should also be sited to minimize tree removal and visually intrusive grading during development. During the subdivision process, scenic or conservation easements should be required to the fullest extent possible for wooded ridge, hill, and areas of 30% slope or more.
4. The least visually obtrusive portion of a parcel should be considered the most desirable site for the location of new structures. Structures should be located where existing topography and vegetation provide natural screening.
5. Structures should be located to minimize tree removal, and grading for the building site and access road. Disturbed slopes should be restored to their previous visual quality. Landscape screening and restoration should consist of plant and tree species complementing the native growth of the area.
6. Agricultural uses on flat or rolling land should be preserved as a productive and visual resource. Agricultural uses on highly erodible slopes should be discouraged due to the visual degradation that results from runoff problems and resultant erosion scars.

2.2.3 Specific Policies

1. The scenic areas of North County including the coastal beaches and dunes, estuaries, wetlands, slopes adjacent to scenic corridors and viewpoints, and ridges shall be zoned for scenic conservation treatment.
2. Where it is found that highly sensitive scenic areas cannot be effectively protected through public regulation, then the land should be considered for public acquisition. In such cases, the land should be purchased by agencies with the capacity to properly manage and supervise the property.
3. Structures shall generally be sited so as not to block public views of the shoreline; development proposals shall be revised if necessary to accomplish this goal. Necessary structures in public view between the road and shoreline (such as agricultural buildings) shall be functionally designed, and sited so as to protect the maximum possible open views. Other development in public view between the road and shoreline (such as residential or commercial structures) shall be designed with materials, colors, landscaping and fencing appropriate to the rural setting.
4. New roads providing residential, recreational, or agricultural access should be considered only where it has been demonstrated that common use of neighboring roads is not feasible. Access roads should not be allowed to intrude upon public views of open frontal slopes or ridgelines visible from scenic routes or viewpoints. Roadways shall be designed to conform to the natural topography in order to minimize grading, erosion, and the scarring of hillsides.
5. New overhead utility and high voltage transmission lines that cannot be placed underground should be routed to minimize environmental and scenic impacts.
6. Existing native trees and other significant vegetation shall be retained to the maximum extent possible, as an essential element of the scenic beauty and character of the North County coastal area. Removal of native trees and vegetation and landmark trees shall be permitted in accordance with Sections 2.3.2, 2.3.3, 2.6.2 and 2.6.3 of this plan and other policies that may apply. In addition, a Tree Ordinance shall be developed and rigorously enforced that will regulate removal of trees and other significant vegetation throughout the North County Coastal Zone.
7. Outdoor advertising signs shall be restricted and, where present, removed as soon as possible in conformance to existing County regulations. Highway direction and other public signs should be minimized and designed to complement the visual character of the area.

8. Commercial and industrial signs shall be constructed of natural materials. They shall not be internally illuminated.

2.2.4 Recommended Actions

1. The beaches, dunes, estuaries, and wetlands should be zoned with a district that allows structures associated with the recreational, educational, and aquacultural use of the areas. The scenic-wooded hills, ridges, and slopes should be zoned with a district that allows only recreation and low density residential uses and appurtenant facilities that are compatible with the scenic character of the area. Procedures and standards should be designated for review of the siting, design, landscaping of, and grading for any structures proposed in these areas. No uses or structures should be allowed that are unnecessarily visible or that significantly detract from the scenic character of these visual resources.
2. Areas containing man-made scenic resources or adjacent to them should be zoned with a district that allows only visually compatible uses and development.
3. Areas within or immediately adjacent to designated scenic highways, routes, and waterways should be zoned with a district that allows only visually compatible uses and development. No uses or development except as otherwise provided should be allowed that are visually intrusive and detract from the scenic character of the scenic corridor.
4. Highway 1 from Marina to the County line at the Pajaro River should be officially designated as a State Scenic Highway and the visual character of the adjacent scenic corridor should be preserved, and where feasible restored.
5. Elkhorn Road from the wooded area south and west of Walker Valley Road to Waugh Road should be officially designated as a County Scenic Route and the visual character of the adjacent scenic corridor should be preserved and where feasible, restored.
6. Elkhorn Slough should be officially designated as a State Scenic Waterway and the visual character of the adjacent scenic corridor should be preserved and where feasible, restored.

2.3 ENVIRONMENTALLY SENSITIVE HABITATS

Within the North Monterey County Coastal Area a great diversity of plant and animal habitats coexist. Climate, soils, topography, the extent of marine influence, and the degree of disruption to the natural environment varies greatly. Interac-

tion of these variables over the years has produced several sensitive or rare habitats and species, many of which will require special attention if they are to be preserved for future generations.

Environmentally sensitive habitats are areas in which plant or animal life or their habitats are rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. These include Areas of Special Biological Significance as identified by the State Water Resources Control Board; rare and endangered species habitat, all coastal wetlands and lagoons, all marine wildlife, and kelp beds; and indigenous dune plant habitats.

The Coastal Act emphasizes the importance of maintaining environmentally sensitive habitats and further stresses that future development within or adjacent to sensitive areas must be appropriate with respect to type of use, siting, and design to ensure that the sensitive areas are not degraded or threatened. Only coastal-dependent uses are permitted within sensitive habitat areas including nature education and research, hunting, fishing, and aquaculture.

Among the sensitive habitat areas found nearest the coast are the Monterey Bay itself, the delicate dunes and beaches, and the large sloughs and saltwater marshes--each with a different and changing degree of salinity. A unique community of vegetation and wildlife is supported in each area. Inland portions of the North Monterey coastal area also support a diversity of sensitive habitats including: riparian corridors, freshwater marshes, and maritime chaparral. These have been threatened to varying degrees by agricultural and residential uses.

Perhaps most unique among all of these habitats are the sloughs, the estuarine waters resulting from the mixing of seawater with freshwater. They are also some of the most sensitive. The sloughs provide a sanctuary for harbor seals, sea otters, and a great variety of fish and birds. Factors with the potential to severely affect the stability and viability of the estuarine habitat are alterations in the drainage systems, sedimentation, and obstacles to water circulation (i.e., tidegates or undersized culverts). Oil spills are a particularly devastating possibility.

The list of rare and endangered species of plants and animals is lengthy for this area and many of these species exist only in the most sensitive and limited habitats. In order to preserve the viability of these habitats and the plants and animals they support, they must be protected from the damaging effects of development or inappropriate activities such as off-road vehicle use, hunting, and inappropriate spraying of pesticides and herbicides. In some cases, the protection warranted will entail public acquisition of property, and subsequent designation as a preserve or sanctuary with supervision of activities. Such

protection may be necessary for some of the dune areas along the coast which are still privately owned. It may also be appropriate for some of the riparian habitats.

Protection in the form of land use regulation and design review of development projects in the vicinity of an environmentally sensitive habitat should be adequate in most other cases. Programs designed to alert the public to the locations of environmentally sensitive habitats and to educate them about the habitat's uniqueness and fragility may be a useful tool in protecting areas affording major public access.

The quality of North County's coastal waters could be jeopardized by increased discharges of wastewater, with predictable negative impacts on the health and welfare of the County's citizens. The potential sources for this wastewater originate from both within and outside of Monterey County. It is therefore imperative that the County have strict guidelines and controls for all wastewater discharges into Monterey Bay and the County's coastal waters.

2.3.1 Key Policy

The environmentally sensitive habitats of North County are unique, limited, and fragile resources of statewide significance, important to the enrichment of present and future generations of county residents and visitors; accordingly, they shall be protected, maintained, and, where possible, enhanced and restored.

2.3.2 General Policies

1. With the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following environmentally sensitive habitat areas: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as environmentally sensitive. Resource dependent uses, including nature education and research hunting, fishing and aquaculture, where allowed by the plan, shall be allowed within environmentally sensitive habitats only if such uses will not cause significant disruption of habitat values.
2. Land uses adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts, upon habitat values and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.

3. New development adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New subdivisions shall be approved only where significant impacts to environmentally sensitive habitats from development of proposed parcels will not occur.
4. To protect environmentally sensitive habitats and the high wildlife values associated with large areas of undisturbed habitat, the County shall maintain significant and, where possible, contiguous areas of undisturbed land for low intensity recreation, education, or resource conservation use. To this end, parcels of land totally within sensitive habitat areas shall not be further subdivided. On parcels adjacent to sensitive habitats, or containing sensitive habitats as part of their acreage, development shall be clustered to prevent habitat impacts.
5. Where private or public development is proposed in documented or potential locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. 1 - field surveys by qualified individuals or agencies shall be required in order to determine precise locations and to recommend mitigating measures to ensure protection of any sensitive habitat present. The required survey shall document that the proposed development complies with all applicable environmentally sensitive habitat policies.
6. The County shall ensure the protection of environmentally sensitive habitats through deed restrictions or dedications of permanent conservation easements. Where land divisions or development are proposed in areas containing environmentally sensitive habitats, such restrictions or easements shall be established through the development review process. Where development has already occurred in areas supporting sensitive habitat, property owners should be encouraged to voluntarily establish conservation easements or deed restrictions.
7. Where public access exists or is permitted in areas of environmentally sensitive habitats, it shall be limited to low intensity recreation, scientific or education uses such as nature study and observation, education programs in which collecting is restricted, photography, and hiking. Access in such locations shall be confined to appropriate areas on designated trails and paths. No access shall be approved which results in significant disruption of habitat.
8. Where development is permitted in or adjacent to environmentally sensitive habitat areas (consistent with all other resource protection policies), the County, through the development review process, shall restrict the removal of

indigenous vegetation and land disturbance (grading, excavation, paving, etc.) to the minimum amount necessary for structural improvements.

9. The County shall require the use of non-invasive plant species in proposed landscaping and should encourage the use of appropriate native species or species that are compatible with native plants.
10. Construction activities, industrial, and public and commercial recreational uses which would affect rare and endangered birds shall be regulated to protect habitats of rare, endangered, and threatened birds during breeding and nesting seasons. Regulations may include restriction of access, noise abatement, and restriction of hours of operation of public or private facilities. Regulations shall not prohibit emergency operation of service and public utility equipment.

2.3.3 Specific Policies

A. Terrestrial Plants and Habitats

1. Public access to areas of rare, endangered and sensitive plants should be actively discouraged and directed to less sensitive areas. Where allowed, public access should be strictly managed. Otherwise the area should be closed.
2. Maritime chaparral is an uncommon, highly localized and variable plant community that has been reduced in North County by residential and agricultural development. Further conversion of maritime chaparral habitat to agricultural uses is highly discouraged. Where new residential development is proposed in chaparral areas, it shall be sited and designed to protect the maximum amount of maritime chaparral. All chaparral on land exceeding 25 percent slope should be left undisturbed to prevent potential erosion impacts as well as to protect the habitat itself.
3. Domestic livestock should be managed and controlled in areas where they would degrade or destroy rare and endangered plant habitats, riparian corridors, or other environmentally sensitive habitats.
4. Oak woodland on land exceeding 25% slope should be left in its native state to protect this plant community and animal habitat from the impacts of development and erosion. Development within oak woodland on 25% slope or less shall be sited to minimize disruption of vegetation and habitat loss.
5. A fuel reduction program should be developed for North County's oak woodland and chaparral to reduce the potential risk of wildfires, to maintain the vigor of plant communities, and to maintain the diversity and value of habitat areas. Controlled burning should be strictly limited and

managed in maritime chaparral areas.

6. Coastal dune habitats in areas shown as Resource Conservation or as Scenic and Natural Resource Recreation on the plan map shall be preserved and protected. Appropriate uses in such areas shall be limited to scientific, education and low intensity recreational uses, and within the Moss Landing area, essential utility pipelines where no feasible alternative exists. Disturbance or destruction of dune vegetation shall be prohibited, unless no feasible alternative exists, and then only if re-vegetation with similar species is made a condition of project approval. Any resulting dune disturbance shall be restored to the natural condition.
7. A dune stabilization and restoration program should be implemented by State Department of Parks and Recreation. Damaged dune areas should be replanted with native vegetation. Dune areas of high sensitivity should be protected from disruptive uses and development.
8. The dune area between the City of Marina and the Salinas River along Monterey Bay should be acquired by the U.S. Fish and Wildlife Service or the State Department of Fish and Game and managed as a wildlife reserve.
9. Where major access routes are available or desirable through the dunes to the coast, boardwalks or other appropriate pathways constructed of permeable materials should be provided to protect the vegetation stabilizing the dunes. Other access routes through the dunes should be controlled and only allowed in limited circumstances.

B. Riparian, Wetland, and Aquatic Habitats

1. Riparian plant communities shall be protected by establishing setback requirements consisting of 150 feet on each side of the bank of perennial streams, and 50 feet on each side of the bank of intermittent streams, or the extent of riparian vegetation, whichever is greater. In all cases, the setback must be sufficient to prevent significant degradation of the habitat area. The setback requirement may be modified if it can be conclusively demonstrated by a qualified biologist that a narrower corridor is sufficient or a wider corridor is necessary to protect existing riparian vegetation from the impacts of adjacent use.
2. All development, including dredging, filling, and grading within stream corridors, shall be limited to activities necessary for flood control purposes, water supply projects, improvement of fish and wildlife habitat, or laying of pipelines when no alternative route is feasible, and continued and future use of utility lines and appurtenant facilities. These activities shall be carried out in such a manner as to minimize impacts from increased runoff,

sedimentation, biochemical degradation, or thermal pollution. When such activities require removal of riparian plant species, re-vegetation with native plants shall be required.

3. The following activities shall be prohibited within intermittent and perennial stream channels: cultivated agriculture, pesticide applications, and installation of septic systems. Grazing should be allowed only at levels that would not destroy vegetative ground cover of the stream channel.
4. A setback of 100 feet from the landward edge of vegetation of all coastal wetlands shall be provided and maintained in open space use. No permanent structures except for those necessary for resource-dependent use which cannot be located elsewhere shall be constructed in the setback area. Prior to approval of all proposed structures in the setback area, it must be demonstrated that the development does not significantly disrupt the habitat resource.
5. All wetland areas of the North County Coastal Zone shall be protected and preserved for their plant and wildlife values, including but not limited to McClusky Slough, Pajaro River, Salinas River, Salinas River Lagoon, Elkhorn Slough, Bennett Slough, and Moro Cojo Slough. The County's existing Non Pointsource Pollution Program shall be implemented.
6. Dredging or other major construction activities shall be conducted so as to avoid breeding seasons and other critical phases in the life cycles of commercial species of fish and shellfish and other rare, endangered, and threatened indigenous species.
7. Development and recreational activities near the harbor seal haul-out area should be restricted to ensure the continued viability of this habitat. In accordance with federal regulation, the haul-out area should not be altered or disturbed by recreational, commercial, or other uses.
8. Oil and other toxic substances shall not be allowed to enter or drain into the estuarine system. Oil spill and toxic substance discharge contingency plans shall be developed by the appropriate agencies of Monterey County to coordinate emergency procedures for clean-up operations of all foreseeable conditions. New development shall be permitted adjacent to estuarine areas only where such development does not increase the hazard of oil spill or toxic discharge into the estuaries.

C. Terrestrial Wildlife

1. Wildlife management considerations should be included in the evaluation of development proposals, particularly land

division proposals. Large, and where feasible, contiguous areas or corridors of native vegetation should be retained in order to meet the various needs of those wildlife species requiring large areas of undisturbed habitat.

2. Critical wildlife habitat areas (refer to General Policy 2) shall be protected and an adequate distance based on a site-by-site analysis between such habitat and disturbed areas (e.g., building sites and roads) shall be maintained.

D. Marine Resources

All new and/or expanding wastewater discharges into the coastal waters of Monterey County shall require a permit from the Health Department. Applicants for such permits shall be required to submit, at a minimum, the following information and students:

1. Three years monitoring records identifying the existing characteristics of the proposed wastewater discharge. Particular areas of concern include toxic chemicals, inorganic heavy metals, bacteria, and other indicators prescribed as threats to the health and safety of coastal waters, or
2. Provide comprehensive projections of the proposed wastewater discharges; both quantitative and qualitative characteristics must be specifically identified. Specific figures for the indicators identified in (1) must be included in the projections.
3. Provide complete information on levels of treatment proposed at the treatment facility to remove those indicators mentioned in (1). This information shall also include reliability and efficiency data of the proposed treatment.
4. Provide a comprehensive monitoring plan for testing of wastewater for indicators identified in (1).
5. Perform oceanographic studies to determine the most suitable location and methods for discharge into the ocean.
6. Perform tests of ocean waters at the proposed discharge site and surrounding waters to establish baseline or background levels of toxic chemicals, heavy metals, bacteria and other water quality indicators. These tests must be performed no more than one year prior to submittal of the proposal. Historical data may not be substituted for this requirement.
7. Perform toxicity studies to determine the impacts of the proposed wastewater discharges on marine life, as well as on recreational uses of the coastal waters.
8. Identify and analyze alternative methods of wastewater

disposal. This shall include hydrogeologic studies of the applicant's groundwater basin to determine the water quality problems in that area and if onsite disposal will have an adverse impact on groundwater quality.

The data and results of requirements (1) through (8) must be submitted to the County's Chief of Environmental Health for evaluation and approval. A wastewater discharge permit shall be issued only if the above information demonstrates that the proposed wastewater discharge will not degrade marine habitats; will not create hazardous or dangerous conditions; and will not produce levels of pollutants that exceed any applicable state or federal water quality standards.

2.3.4 Recommended Actions

1. A comprehensive natural resource and water basin management plan should be prepared for North County. The plan should include recommendations for monitoring residential and industrial runoff, regulation of discharges into coastal wetland and stream courses, instream flow protection, regulation of spoils disposal, development of best management practices for control of non-point discharge and erosion. Criteria should be set for adequate setbacks and development practices to protect environmentally sensitive habitats. All appropriate public agencies should participate in the management plan financing development and implementation.
2. A comprehensive wetland management plan should be completed for the Bennett Slough, Moro Cojo Slough, Elkhorn Slough, and Old Salinas River estuarine areas. The feasibility of restoring degraded, impounded, and former wetland areas should be evaluated, specifically including the salt pond complex, Parson's Slough area, Moro Cojo Slough, and the upper end of Elkhorn Slough between Elkhorn Road and Blohm Road. The role of water impoundments on the wildlife ecology of Elkhorn Slough should be investigated. Criteria should be set for adequate set backs, development standards, and aquaculture practices to protect the wetland areas. The plan should also address appropriate recreational, educational, research, and commercial uses and intensities. Access paths and parking areas should be designated. All appropriate public agencies including the U.S. Fish and Wildlife, State Fish and Game, Wildlife Conservation Board, State Lands Commission, Moss Landing Harbor District, Coastal Conservancy, and Monterey County should participate in the management plan financing and development. Participation of interested members of the public should be encouraged. Once the plan is completed, management responsibility for the wetland areas should be assigned to an agency with adequate technical and supervisory staff to implement the plan.
3. The County should work with the State Department of Parks

and Recreation and the State Coastal Conservancy to explore the reservation of significant coastal resource areas, as provided for in the State Coastal Conservancy Act.

4. The County should work in coordination with the Department of Fish and Game, federal government agencies (e.g., Fish and Wildlife Service), and local botanists to develop effective conservation easements, associated means of implementation and enforcement procedures to protect sensitive terrestrial and aquatic plants and critical habitat locations. Where management and regulation techniques are not sufficient to protect endangered environmentally sensitive resources, public or private acquisition of land or water areas representative of each of the identified environmentally sensitive plant habitats in North County should be encouraged by the County.
5. The County should encourage the restoration of sensitive plant habitats on public and private lands. A program to control invasive non-native vegetation should be developed in conjunction with the State Department of Parks and Recreation, State Department of Fish and Game, U.S. Forest Service and the County.
6. The County, in coordination with the State Department of Parks and Recreation and other concerned agencies or organizations, should promote increased public understanding of the importance and values of environmentally sensitive habitats by the following means:
 - a. Encouraging and supporting environmental education programs that emphasize understanding of local habitat areas in the public schools and in informal educational programs offered by community organizations.
 - b. Providing signs, interpretive displays and/or educational materials at appropriate locations to inform the public of the sensitivity and habitat values of selected local sites.
7. The Department of Fish and Game, which has responsibility for listing rare and endangered plants, should provide Monterey County with updated information on plants, locations, and habitat requirements.

2.4 DIKING, DREDGING, FILLING AND SHORELINE STRUCTURES

The Coastal Act states that the diking, filling, or dredging of coastal waters, wetlands, estuaries, and lakes shall be permitted where there is no feasible, less environmentally damaging alternative; mitigation measures must be provided to minimize adverse environmental effects. Protection of marine resources and the quality of coastal waters is a top priority. Therefore,

diking, dredging, and filling must avoid disruption to marine and wildlife habitats and water circulation.

The historic, natural interface between the open, tidal waters and wetlands of North County have been systematically altered over the years by the construction of numerous levees or dikes, fills, and the installation of structures. These have served a number of beneficial purposes such as protecting agricultural lands, encouraging aquaculture or waterfowl production, and facilitating navigation and transportation. But they have also resulted in significant adverse environmental impacts such as loss of valuable wetland and wildlife habitat, excessive mosquito production, and soil salinization.

Beginning approximately in 1870, levees were constructed along the Elkhorn, Parson's, Bennett, McClusky and Moro Cojo Sloughs. These have been intended primarily as a means of reclaiming wetlands for agricultural purposes and/or to provide seasonal waterfowl hunting areas. Some levees were developed for residential reclamation and to provide protection to lives and property from the danger of flooding, such as those along the Pajaro, Old Salinas and Salinas Rivers. The cumulative effect of those actions has been to restrict water flow to principal channels or artificial ditches within these waterways. Hundreds of acres of salt and freshwater marsh have been converted into pasture and farmland; much of this land is now itself subject to salinization, compaction, and subsidence. A critical issue concerns whether to remove certain levees to encourage wetland restoration or to renovate them to provide continued agricultural and other land uses.

Dredging or channelization has taken place in many areas of North County for different purposes. Since its creation in 1946, the Moss Landing Harbor has been dredged every three years to ensure continued navigability. P.G. & E. also dredges in the harbor to maintain proper flow to the cooling water intakes. Channelization has been used in Moro Cojo and Tembladero Sloughs to aid land drainage, and in the Old Salinas River to avoid flooding. Further ditching will likely occur in some of the remaining marsh to avoid heavy reliance on pesticide applications for mosquito control.

Shoreline structures such as jetties, docks, or piers are concentrated in the Moss Landing Harbor area. Elsewhere in North County, a few such structures have been built. In general, the sandy beach area along the coastline is inappropriate for the installation of such structures. The jetties and Sandholdt (or Kaiser) Pier represent the only installations still intact. In Elkhorn Slough, existing structures are limited to the pump facility of the saltpond complex, PG&E outfall, Moonglow Dairy dock, and the boat ramp at Kirby Park.

2.4.1 Key Policy

Diking, dredging, and filling activities play a valuable protec-

tive and constructive role along the North County coast. However, unnecessary or illplanned activities of this nature could seriously alter the natural environment and adversely impact important biological habitats, drainage patterns, and the scenic character of coastal, river, and estuarine shorelines. Therefore, the County shall preserve and protect the coastal estuaries and wetlands in as natural a state as possible while providing for appropriate expansion of Moss Landing Harbor facilities and other limited, compatible wetland uses.

2.4.2 General Policies

1. Further alteration of natural shoreline processes including drainage, erosion, water circulation, and sand transport, shall be limited to protection of public beaches, existing significant structures, coastal dependent development, and the public health and safety.
2. In order to prevent further reduction in the size and quality of remaining wetlands habitat, no diking, dredging, or filling shall be allowed except the minimum required for uses permitted in policy 2.4.2.(1). Such development shall be permitted only when an equivalent area of new or degraded wetlands (identified pursuant to Section 30411 of the Coastal Act), within the same estuarine system is created or restored in a manner which maintains or enhances overall biological productivity. Such mitigation shall precede diking, dredging, or filling activities.
3. Dredging and spoils disposal should be planned and carried out to avoid significant disruption to marine, estuarine and wetland habitats, and the pattern and volume of water circulation. Dredged spoils suitable for beach replenishment shall be transported for such purposes to appropriate beach areas with suitable longshore current systems. Dredged spoils shall meet all State and Federal standards for the protection of the marine biologic environment and shall be disposed of consistent with all current policies and sites.
4. Diking, dredging, or filling in Elkhorn Slough, Bennett/Struve Slough, McClusky Slough, Moro Cojo Slough, and Parson's Slough shall maintain or enhance the biological productivity of the wetland or estuary. Any alteration of the coastal estuaries and wetlands in North County shall be limited to restorative measures and appropriate facilities associated with access, research, education, and aquaculture according to specific criteria designated in a wetland management plan. Prior to completion of wetland management plans, appropriate facilities are those consistent with Section 30233(a) of the Coastal Act.
5. Any site disrupted by future diking, dredging, or filling activities shall be fully restored to its original condition whenever desirable. The initial restoration work shall

be undertaken immediately following project completion.

6. If diking, dredging, or filling alternatives exist for a project, the least environmentally damaging alternative shall be selected.

2.4.3 Specific Policies

1. No additional filling should be made in the wetland areas of McClusky Slough.
2. Wetland or marsh recovery should be encouraged throughout the entire length of Elkhorn Road crossing. Within this area, levees constructed along the historic marsh/mudflat interface are encouraged to be removed, with the exception of the Southern Pacific Railroad bed, and other levees necessary to protect coastal priority land uses: these include the existing salt pond complex, aquaculture, and agriculture. All tidegates under the railroad levee should be improved or maintained to allow better tidal exchange between the main channel and wetlands east of the tracks. Water impoundments elsewhere, created by placement of dikes across canyons, should be studied to determine whether their net impact on wildlife is positive or adverse and removed where appropriate.
3. Obstruction of the main channel of Parson's Slough, an arm of Elkhorn Slough, by an inadequate tidegate and dikes has resulted in insufficient tidal flow and water drainage or circulation. In turn this has caused excessive production of mosquitoes and decreased the wildlife value of the area. All dikes across the principal channel of the slough should be removed by the Department of Fish and Game in order to increase habitat and wetland restoration. This would also decrease mosquito breeding, minimizing the need for pesticide spraying and other controls. Other levees should be retained pending determination by the Department of Fish and Game of their role in waterfowl production.
4. The full wildlife habitat value of Moro Cojo Slough has been limited by the extensive construction of levees and tidegates. The tidegate at the mouth of the slough under Moss Landing Road should be opened to a degree that allows adequate tidal flushing and exchange while not endangering agricultural land.
5. Increased tidal flushing should be provided for Bennett Slough if increased wildlife habitat will result.
6. The County's diking, dredging, filling, and shoreline structures regulations shall incorporate Coastal Act Sections 30233(a) and (c), 30235, 30236, and 30607.1.

2.4.4 Recommended Actions

1. A Coastal Conservancy or Wildlife Conservation Board

project should be investigated to evaluate any actions that will facilitate wetland recovery of McClusky Slough, enhance the value of the area for wildlife, and restore water circulation within the entire original estuary.

2. A Coastal Conservancy or Moss Landing Harbor District project should be initiated to determine to what extent restoration of tidal action in Moro Cojo Slough will threaten viable agricultural land. Restoration and construction of dikes and levees to protect viable agricultural land should be permitted. Coastal Conservancy funds should be requested to assist these efforts. No removal of tidegates or replacement of culverts can take place until it can be assured that no damage to bordering agricultural land will occur.
3. The Moss Landing Harbor District should enlarge the culvert under Jetty Road if increased wildlife habitat will result in addition to tidal flushing of the North Harbor.
4. The tidegate at Potrero Road should be maintained by the County at a size to alleviate potential flooding hazards and improve circulation.
5. A cooperative flood control management plan for the Pajaro River should be developed and implemented by the Counties of Monterey and Santa Cruz.

2.5 WATER RESOURCES

Water Availability

Virtually all of the population and commercial businesses of North County are served by water pumped from local wells. Agriculture, the major water user, is also presently dependent upon groundwater. The groundwater of the area is currently being overdrafted, leading to saltwater intrusion along the coast and falling groundwater table levels in some inland areas.

The major aquifer in the coastal zone is the Aromas Sand formation which reaches a thickness of about 800 feet near the coast. Storage capacity in this aquifer is substantial and has been estimated to be about 80 times existing gross water demand. This aquifer is basically recharged by local rainfall. Agriculture irrigation and septic systems return some groundwater to the aquifer. The Aromas Sand Aquifer interfaces with the "180 foot" and "400 foot" Salinas Valley pressure aquifers which are mainly recharged by upstream rainfall and surface water percolation from the San Antonio and Nacimiento Reservoirs. The Purisma Aquifer is beneath the Aromas Sands. At this time, it is largely untapped except for a few very deep wells. This aquifer may have substantial groundwater potential. Granite which underlays the entire North County is a low yield source of

groundwater.

A study for the State Department of Water Resources in 1977 indicated a general groundwater overdraft of about 15,500 acre feet annually in the North County area. A more detailed study by the U.S. Geological Survey in 1980 confirmed the overdraft of the Aromas Sand Aquifer. The report estimated a study area annual overdraft in the North County area of about 1,500 to 8,000 acre feet. However, due to the depth of the water-bearing Aromas Sands, its high storage capacity, and the overall complexity of geologic and hydrologic considerations, the long-term safe yield of the aquifer is difficult to estimate.

The granite ridge aquifer, a portion of which lies within the coastal zone along its eastern boundary, has little storage capacity and is presently experiencing serious localized overdrafts. The County has established a moratorium on further subdivisions in this water short area until a long range solution can be found. The "Moratorium Area Groundwater Study" (Anderson-Nichols, 1981), commissioned by the County has further analyzed the water supply problem and has made a series of recommendations concerning land use that are under consideration by the County.

It is evident that continued overdraft in the North County will lead to increasing saltwater intrusion and lower water tables. In some areas, water shortages may occur. Managing the demand for water generated by agricultural use and residential and commercial development within the limits of attainable long term water supply sources will be a major challenge for the area in the coming years. Additional information is urgently needed to help determine the long term safe yield of North County aquifers. The opportunities for obtaining a surface water supply should also be investigated. Potential sources of imported water include the San Felipe project or construction of a dam on the Arroyo Seco River. Canals or tunnels would have to be constructed to deliver water to North County. A dam project on the Arroyo Seco River would also provide the potential to increase recharge to the Salinas Valley aquifers.

Water Quality

The surface waters of the North County area have a variety of pollution problems that have resulted in degraded water quality. Land development, waste disposal, and agricultural practices contribute to the degraded water quality along with the natural presence of salts, heavy metals, and animal coliform bacteria. Water-contact recreation activities have been banned in the lower Salinas River by the County Health Department due to potential health hazards. Direct consumer sale of shellfish raised in Elkhorn Slough has been banned due to high coliform bacteria levels. The slough is also subject to high sedimentation from erosion. The Pajaro River is subject to high mineral salt and boron levels resulting from natural minerals and irrigation return flows. Moro Cojo Slough has a very high

seasonal salt content due to salt leachage, agricultural return flows, and lack of water circulation and drainage. The slough no longer supports the range of biological life that it did in the past. The Old Salinas River and Tembladero Slough have high coliform bacteria levels and high mineral salt levels. Contamination of groundwater due to leachage of nitrates into groundwater from septic tanks and agricultural operations is an increasing problem in some areas of North County. Areas with highly permeable soils and high water tables are particularly susceptible. In such areas, moderate to high densities of residential development on septic tanks, dairies, and agriculture using large applications of fertilizer, could contribute significant amounts of nitrate which may potentially be leached into groundwater.

Septic system failure is a problem in some areas of North County. Failure results in public health hazards when inadequately treated wastewater effluent contaminates surface waters or groundwater, or when the effluent accumulates on the ground surface. High water tables, improper siting, poor construction techniques, inadequate maintenance, and inappropriate soils may all contribute to the failure of a septic system. Due to individual and cumulative health and water quality impacts of failing septic systems in areas not proposed for sewers, creation of on-site wastewater management districts may be appropriate for identified problem areas.

Erosion and Sedimentation

The long-term maintenance of the natural resources of the Elkhorn and Moro Cojo Sloughs and other North County wetlands is a principal objective of the Local Coastal Program and is a requirement of the Coastal Act. The problem of rapid erosion of soils in the sloughs' watersheds and the consequent siltation and loss of the wetlands themselves has been a problem of growing public concern. In order to develop a program to address this critical issue, the County has employed the University of California as its consultant. A comprehensive study was completed by the University that has provided the basis for the policies and recommendations set forth in Section C below. Among the major findings of the study are that:

- Almost half of the Salicornia (45%) and other wet grasslands (48%) surrounding the Slough have been converted to upland vegetation during the last 50 years. Much of the early loss of wetland habitat is associated with diking and drainage projects occurring between 1931 and 1956 on the northern, eastern and southern Slough boundaries. However, at least eighteen fans have been deposited on the western boundary of the Slough due to present agricultural and residential development adjacent to these areas.
- Existing land use within the watershed of Elkhorn and Moro Cojo Sloughs contributes a sediment load far in excess of the natural rate of deposition. Sediment activity values

based on the combined rates of erosion and deposition at selected sites within the upland portions of the watershed indicate that intensive agriculture has more than twice the disturbance potential of urban development, and nearly ten times that of sites with natural vegetation.

- Significant volumes of sediment are presently carried by Carneros Creek during storms of relatively low magnitude, high frequency (2-year recurrence interval), and moderate streamflows (100-300 cfs.). During such times as much as 75% of the total sediment load is carried and delivered to the upper reaches of Elkhorn Slough.
- Sites where the soil has been disturbed are more active sediment sources than those where natural vegetation remains or where soil cover is managed to limit erosion. Unvegetated sites on steep slopes are the greatest contributors to the sedimentation of Elkhorn Slough, and hence, to the accelerated destruction of its natural values.
- The most important factors in considering the relationship between the intensity of land use in the watershed and impacts on estuarine processes is the differential erosion and infiltration rates of soils on the watershed. Large portions of the watersheds of Elkhorn and Moro Cojo Slough are comprised of highly erodible soils, particularly the Aromas Sands. Erosion and subsequent sedimentation in the estuaries varies based upon the soil type, management practice, and physiographic conditions (e.g. slope) within a particular area.
- Land use practices which affect the concentration of surface runoff (e.g. the construction of channels, culverts, and roads) increase downstream erosion. Mitigation measures, such as energy dissipators or vegetation stabilization are necessary on a project review basis to address this problem.
- Allocation of land use in accordance with the related amount of land disturbance will be the most effective means to reduce the long term cumulative impact of development within the Elkhorn Slough watershed. Such an allocation program should reflect not only hydrologic and soil characteristics within the watershed, but should also account for the amounts of land disturbance associated with various land uses.

Based on these and other findings, the study has made a number of important recommendations that are reflected in Section C that follows. Among these are that the best available agricultural management and construction practices be required of all new development in order to lessen future erosion impacts and that new agricultural cultivation, roads and structures be sited as much as possible in areas not highly prone to erosion. The study also urges that maximum limits on land disturbance be

established and adhered to on a subwatershed basis as the County's most effective means of maintaining the cumulative impact of erosion within established targets. Finally, a comprehensive and long range restoration effort is needed that will effectively begin the process of correcting the serious erosion problems that have occurred over time and will restore land disturbance in degraded watersheds to a level more closely conforming to the natural regime, and that will mitigate existing erosion problems. Maps delineating both the boundaries of the numerous subwatersheds draining to Elkhorn and Moro Cojo Sloughs and lands highly susceptible to erosion were prepared during the study and are included for reference in the "North County LCP Resource Map Book."

2.5.1 Key Policy

The water quality of the North County groundwater aquifers shall be protected, and new development shall be controlled to a level that can be served by identifiable, available, long term-water supplies. The estuaries and wetlands of North County shall be protected from excessive sedimentation resulting from land use and development practices in the watershed areas.

2.5.2 General Policies

1. The County shall limit the kinds, locations and intensities of new development, including agriculture to minimize further erosion in the watersheds of Elkhorn and Moro Cojo Sloughs and sedimentation of the Sloughs. All development shall incorporate all available mitigation measures to meet these goals, including, at a minimum, the measures identified in Policy 2.5.3.C.(6).
2. Point and non-point sources of pollution of coastal waters shall be controlled and minimized. Restoration of the quality of degraded surface waters shall be encouraged.
3. New development shall be phased so that the existing water supplies are not committed beyond their safe long term yields. Development levels that generate water demand exceeding safe yield of local aquifers shall only be allowed once additional water supplies are secured.
4. Adequate quantities of water should be maintained instream or supplied to support natural aquatic and riparian vegetation and wildlife during the driest expected year.
5. New rural development shall be located and developed at densities that will not lead to health hazards on an individual or cumulative basis due to septic system failure or contamination of groundwater. On-site systems should be constructed according to standards that will facilitate long-term operation. Septic systems shall be sited to minimize adverse effects to public health, sensitive habitat areas, and natural resources.

6. The use of appropriate technology on-site wastewater management systems that reduce the risk of failure or groundwater contamination and are approved by the Health Department should be encouraged.

2.5.3 Specific Policies

A. Water Supply

1. The County's Policy shall be to protect groundwater supplies for coastal priority agricultural uses with emphasis on agricultural lands located in areas designated in the plan for exclusive agricultural use.
2. The County's long-term policy shall be to limit ground water use to the safe-yield level. The first phase of new development shall be limited to a level not exceeding 50% of the remaining buildout as specified in the LUP. This maximum may be further reduced by the County if such reductions appear necessary based on new information or if required in order to protect agricultural water supplies. Additional development beyond the first phase shall be permitted only after safe-yields have been established or other water supplies are determined to be available by an approved LCP amendment. Any amendment request shall be based upon definitive water studies, and shall include appropriate water management programs.
3. The County shall regulate construction of new wells or intensification of use of existing water supplies by permit. Applications shall be regulated to prevent adverse individual and cumulative impacts upon groundwater resources.
4. Water conservation measures should be required in all new development and should also be included in Agricultural Management Plans. These measures should address siting, construction, and landscaping of new development, should emphasize retention of water on site in order to maximize groundwater recharge, and should encourage water reclamation.
5. The moratorium imposed by the County on lot divisions in the Granite Ridge area should be maintained until the water supply issues are resolved.

B. Water Quality

1. All dumping of spoils (dirt, garbage, refuse, etc.) into riparian corridors and other drainage courses should be prohibited.
2. Agricultural runoff should be monitored and techniques established through the proposed North County Agricultural

Management Program to reduce pesticide and nitrate contents.

3. In order to minimize cumulative impacts on groundwater and surface water reservoirs, two and one-half acres shall be considered the maximum density for parcels resulting from a subdivision of property that will require septic systems. In areas where there is evidence that groundwater quality is being degraded due to contamination by on-site systems, and sewer service is not available, development shall be allowed only on parcels with adequate area and soil characteristics to treat and absorb the wastewater without causing further degradation of local ground and surface waters.
4. Adequate maintenance and repair of septic systems shall be required to limit pollution of surface waters and protect the public health.
5. New on-site waste disposal systems shall not be allowed on slopes exceeding 30 percent as required by the Regional Water Quality Control Board Basin Plan. Potential point sources of pollution such as industrial discharges and community wastewater treatment systems shall be examined on a regular basis to monitor water quality impacts. Expansion of facilities generating point sources of pollution shall only be allowed if pollution levels remain at acceptable standards compatible with protection of public health and biological habitats.
6. The problem of saltwater intrusion should be studied and reasonable measures undertaken to retard or halt its advance.

C. Erosion and Sedimentation Control

1. Definitions

a. Critical Erosion Areas

These areas have soils with high erosion potential, as expressed by a high "K-factor" (exceeding .4) and/or with a slope that exceeds 25 percent. A generalized map of Critical Erosion Areas is included in the Resource Map Book; however, applicants are encouraged to provide more detailed delineation of Critical Erosion Areas within any particular area.

b. Non-Critical Erosion Areas

These areas have soils with a low erosion potential, as expressed by the low "K-factor" and lower slope percentage. Non-Critical Erosion Areas are shown in the Resource Map Book as all areas not classified as Critical.

c. Subwatershed

A distinct region within a larger watershed that drains to a tributary of the larger water body: the base unit for determining allowable types and densities of development.

d. Land Disturbance Target (LDT)

The total or cumulative amount of bare ground or disturbed soil which shall be permitted to be created in a subwatershed. The LDT, which shall be used as a primary control on the cumulative impacts of erosion and sedimentation to the estuarine systems, reflects historic erosion rates and the assumption that new development including agricultural conversions will occur only on Non-Critical Erosion lands. Land Disturbance Targets and the existing level of land disturbance for each subwatershed are shown on Table 1.

e. Cumulative Impact

Cumulative impacts, as defined in CEQA, refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

f. Watershed Restoration Areas

Subwatersheds where current land disturbance exceeds the recommended Land Disturbance Targets. These areas are shown in the Resource Map Book and are listed in Table 1.

g. Bare Ground

Land devoid of vegetation.

2. Permit Requirement

- a. In order to ensure the appropriate siting and density for new development, and to monitor and control the amount of land disturbance in relation to the LDT for each subwatershed, all new development in the watershed of Elkhorn and Moro Cojo Sloughs, including the conversion of land to commercial cultivated uses, shall be regulated by permit

and shall be consistent with the policies that follow. The permit application shall contain a full description of the physical features of the parcel, with supporting maps delineating areas of the parcel having 0-10 percent slope, 10-25 percent slope and areas in excess of 25 percent slope. The Critical and Non-Critical Erosion Areas within the parcel shall be indicated. Vegetated areas shall be clearly marked and hydrologic features shall be shown. Projected land disturbance for the project shall be tabulated according to the procedures set forth in Appendix A of this plan. (Appendix A includes all technical data).

3. Siting New Development

General Policies

- a. Where the parcel under consideration contains land in both Critical and Non-Critical Erosion categories, all new development, including roads, shall be sited on Non-Critical Erosion lands.
- b. New clearing of vegetation for cultivation for commercial agricultural purposes shall generally be prohibited in Critical Erosion Areas.
- c. Clustering of building sites on the least erodible portions of the parcel(s) shall be required where it will result in reduced erosion and where such clustering is consistent with other policies of this plan.

Specific Policies

- a. New cultivation in Critical Erosion Areas within areas designated for exclusive agricultural use shall be permitted upon completion of agricultural management plans certified adequate to maintain erosion and sedimentation from the site at levels closely approximating, or less than pre-conversion levels. In the absence of such plans, Critical Erosion Areas shall be retained in natural vegetation or grazing uses in order to minimize erosion.
- b. Development of Critical Erosion Areas may be permitted within areas designated for Medium or High Density Residential Use or Industrial Use upon approval of erosion control plans described in Policy 6.C on pages 31 and 32.
- c. Structures accessory to existing uses may be sited in Critical Erosion Areas only where alternative locations of structures would interfere with ongoing commercial agricultural operations in areas designated for exclusive agricultural use, or where the distance from the main structure would render the accessory use infeasible or impractical.

4. Development in Watershed Restoration Areas

In addition to the Siting Policies above, the following policies shall apply in designated Watershed Restoration Areas (W.R.A.'s).

- a. Watershed restoration areas shall be designated by a combining or overlay zoning district. Land disturbance in these areas shall be maintained below the LDT, and maximum reduction of erosion and sedimentation from these areas shall be the highest priority.
- b. In cooperation with property owners and managers, develop restoration plans for each watershed restoration area which establishes overall improvement needs to reduce the area's erosion and sedimentation to a sufficient level (such as 50% of the LDT) which will remove the respective subwatershed from the "Restoration" category on a long-term basis and reduce overall sedimentation of the sloughs.
- c. Require each development, including conversion to cropland in a W.R.A., to contribute no more than its proportional share of the erosion reduction identified in the restoration plan.
- d. The County Shall periodically review overall development within each Watershed Restoration Area to determine if the Restoration Area designation should be removed. This review shall be made by tabulating current total land disturbance within each subwatershed as described in Appendix A, and comparing it to the LDT's in Table 1. When bareground falls below the restoration plan target for a consecutive three year period, the County shall remove the area from the WRA description.
- e. Permit conversion of agricultural uses on prime lands in WRA's to residential use only if methods of reducing erosion to acceptable (targeted) levels are not feasible, and only to the extent that surrounding prime lands are protected and the minimum necessary lands are converted to non-agricultural uses.
- f. New cultivation, or conversion to cultivation of lands designated Agricultural Preservation or Agricultural Conservation on the land use plan map shall be permitted in Watershed Restoration Areas provided conformance to specific policy 3(a) on page 26 is achieved. The LDT may be exceeded if the agricultural management plan demonstrates that maximum erosion control shall be achieved.

5. Densities for New Development

Maximum permissible densities for the various areas of the plan are shown on the land use plan map and in Section 4.3.1 of the text and range from .10 acres per residence in the High Density Residential areas to 5 acres per residence in the Rural Residential areas. These densities are maximum, that may be approved under ideal conditions where all resource considerations of the plan can be fully met. In order to minimize erosion and consequent sedimentation of Elkhorn and Moro Cojo Sloughs, reductions in maximum permissible densities shall be made as follows:

- a. In areas designated for Rural and Low Density Residential development:
 - Densities shall be reduced as necessary in order to site all development in Non-Critical Erosion Areas and to maintain cumulative development within the LDT for the subwatershed.
 - Existing parcels containing no land suitable for development within the Non-Critical Erosion classification shall be limited to a single residence or to the existing development on the parcel or if there is none, a single residence. Division of the parcel shall not be permitted that creates an additional vacant parcel(s) intended for development.
- b. In areas planned for Medium and High Density Residential development or in Industrial areas, maximum densities shall be reduced as necessary to implement erosion control measures that may be required for the proposed development.

6. Erosion Control Measures

- a. Existing sources of erosion shall be reduced through diligent enforcement of the County's most current Erosion Control Ordinance. The County shall institute a system of fines sufficiently large or shall take other actions to compell compliance by landowners or farm operators in violation of the ordinance.
- b. Agricultural management plans, which shall incorporate erosion control measures, shall be prepared and approved consistent with Section 2.6.3.8 of this plan before the following uncultivated lands are brought into cultivation:
 - Lands containing slopes between 10 and 25 percent.
 - In areas designated for exclusive agricultural

use, any lands also designated as Critical Erosion Areas or as Watershed Restoration Areas.

- c. Erosion control plans shall be required for all new development as set forth in the Erosion Control Ordinance. These plans shall incorporate measures for on-site reduction of bare ground and maximum retention of storm water runoff resulting from impervious surfaces. The plans shall be reviewed by the Soil Conservation Service, and shall be approved by the Director of Building Inspection or by the Planning or Public Works Director prior to issuance of any permits. In reviewing plans in the Coastal Zone, certification will be made for the following, in addition to other requirements of the Erosion Control Ordinance:
 - That the amount of bare ground in the proposed development, is zero, or when combined with the bare ground from existing and committed land use, shall not exceed the Land Disturbance Targets shown on Table 1.
 - That measures incorporated in the site plan to retain storm water runoff shall be designed to contain runoff resulting from a 20 year recurrence interval storm.
 - That measures designed to reduce the amount of bare ground shall maintain a continuous vegetation cover throughout the year. Other types of ground cover may be used where it can be shown that vegetation is not suitable.
- d. All land clearing shall be consistent with the provisions of the County's Erosion Control Ordinance. No land clearing or grading shall take place between October 15 and April 15 in Watershed Restoration Areas or Critical Erosion Areas or other high erosion hazard areas unless specifically authorized by the Director of Building Inspection. Such authorizations shall generally be confined to agricultural operations in areas designated in this plan for Agricultural Preservation or Agricultural Conservation uses.
- e. Maximum retention of vegetation cover shall be required for all new development. In particular, natural vegetation should be retained to the fullest extent possible through careful siting and construction of new development.
- f. Property owners are encouraged to cooperate with the County in establishing Conservation Easements over areas of natural vegetation and on Critical Erosion Areas.

- g. Livestock enclosures shall be sited and designed to minimize erosion. Specific erosion control measures shall be required to adequately retain sedimentation from livestock enclosures on-site.

7. Watershed Restoration Program

- a. The County encourages the long range restoration of watersheds experiencing excessive erosion or watersheds in which the cumulative amount of bare ground has exceeded the LDT. As a minimum objective the County shall seek to reduce the amount of bare ground in subwatersheds exceeding the LDT that are designated for Rural and Low Density development to a level that is within the LDT for that subwatershed.

The County shall undertake a restoration program that contains the following elements:

- Give favorable consideration to development proposals or agricultural management plans that effectively reduce bare ground and erosion potential.
 - Abate existing erosion problems by diligently enforcing the Erosion Control Ordinance.
 - Work with other agencies such as the Soil Conservation Service and Agricultural Advisor and with farmers in the preparation of agricultural management plans that effectively reduce bare ground and erosion potential.
 - Work in cooperation with other agencies to provide technical guidance to individuals during the preparation of development proposals.
 - Support the Monterey County Resource Conservation District or other entities capable of the restoration of degraded North County Watersheds.
- b. The County will, as part of the development permit process, evaluate and review all new development in order to maintain up-to-date information on the amount of bare ground in each subwatershed and as a means of controlling the cumulative erosion impacts of development. For each proposed new development, the County will verify the amount of bare ground resulting and will consider this in light of the cumulative total for the subwatershed. New development will be regulated so that it does not cause the LDT for the subwatershed to be exceeded.

2.5.4 Recommended Actions

1. The County Flood Control and Water Conservation District, in cooperation with the County Planning Department should develop a system of monitoring the effects of increasing development on the groundwater resources. The County should establish a fee as part of permit applications (or

TABLE 1
LAND DISTURBANCE TARGETS BY SUBWATERSHED

Subwatershed	Total Subwatershed In Acres	Existing Bare Ground (1981) In Acres ¹	Land Disturbance Target (Bare Ground) In Acres	Balance ² In Acres
1.	2460.2	151.5	250.9	+ 99.4
2.	1617.9	120.6	140.8	+ 20.2
3.	2879.4	159.0	302.3	+144.3
4.	1744.6	148.1	158.8	+ 10.7
5.	1816.3	160.7	292.4	+131.7
6.	884.5	64.6	122.1	+ 57.5
7.	760.3	181.3	107.2	- 74.1
8.	682.3	111.4	82.5	- 28.9
9.	1013.8	167.2	191.6	+ 24.4
10.	1002.9	169.2	197.6	+ 27.7
11.	943.4	255.0	175.5	- 79.5
12.	610.6	130.6	63.5	- 67.1
13.	617.0	85.5	100.6	+ 15.1
14.	920.9	165.0	149.2	- 15.8
15.	457.6	88.8	86.0	- 2.8
16.	380.2	57.5	87.6	- 19.9
17.	1403.5	757.8	501.0	-256.8
18.	1005.4	91.9	128.7	+ 36.8
19.	528.0	50.9	66.0	+ 15.1
20.	432.0	50.6	96.3	+ 45.9
21.	679.7	102.8	170.6	+ 67.8
22.	664.3	245.2	298.9	+ 53.7
23.	1143.7	282.9	189.9	- 93.0
24.	396.8	58.7	113.9	+ 55.2
25.	1629.4	221.2	272.1	+ 50.9
26.	666.2	70.3	134.6	+ 64.2
27.	1129.6	52.2	84.7	+ 32.5
28.	2140.2	287.3	361.7	+ 74.4
29.	2338.6	291.3	406.9	+115.6
30.	1390.1	172.5	262.7	+ 90.2
31.	1749.8	631.6	339.5	-292.1
32.	2432.0	885.0	788.0	- 97.1
33.	2486.4	572.8	753.4	+180.6
34.	495.4	48.0	93.1	+ 45.1
35.	565.1	142.1	115.8	- 26.3
36.	1937.9	757.5	695.7	- 61.8
37.	908.2	51.2	91.7	+ 40.5

¹ Existing Bare Ground plus Committed Bare Ground. Committed Bare Ground is a projection of bare ground resulting from construction of 1 dwelling on each parcel vacant as of March, 1982. Coefficients of land disturbance contained in Appendix A were used in this calculation.

² A Positive Balance is the result of adding Existing Bare Ground and Committed Bare Ground and subtracting the result from the Land Disturbance Target. A positive balance represents additional acceptable amount of Bare Ground resulting from development or agricultural activities. A Negative balance indicates Restoration Watersheds where the objective is to reduce the existing amount of Bare Ground.

some other financial arrangement) in order to provide a fund to support monitoring of groundwater use and to support further studies of groundwater resources or potential surface water projects that could serve the North County.

2. County growth management studies now in progress should recognize the water supply limitations in the North County Coastal Zone as a chief factor and resource constraint in determining an appropriate annual-growth rate for the area. An ordinance should be drafted by the County to phase development at a level compatible with the availability of groundwater supplies.
3. The septic tank ordinance and regulations should be amended to require dual leach fields in areas with a history of septic system failures and septic tank and drainfield risers for any new development in areas which are not expected to be served by sewers. Other amendments should require a prohibition of new on-site systems on slopes over 30 percent.
4. An on-site wastewater management program should be initiated by the County according to the guidelines of Senate Bill 430, 1977, to provide for public or private monitoring, maintenance, repair, and replacement services.
5. The County's Grading Ordinance should be amended to incorporate a specific section dealing with management practices to control sediment and erosion as recommended in the 208 Plan. the Grading Ordinance should also be amended to prohibit the dumping of spoils in riparian corridors and other drainage courses.

2.6 AGRICULTURE

Agriculture is a traditional coastal activity that has contributed substantially to the region's economy, pattern of employment, quality of life, open space, and scenic quality. The Coastal Act requires that the maximum amount of prime agricultural land shall be maintained in production to assure the protection of the area's economy. Agriculture shall be protected by establishing stable boundaries separating urban and rural areas, by locating new development contiguous to existing developed area, and by minimizing conversions or divisions of productive agricultural land.

Agricultural lands may be evaluated in two ways. The actual fertility of the soil is the basis for the land use capability classification system. Soils are assigned to classes which are rated by physical and scientific criteria; generally, agricultural soils are classified I through IV, with I and II being considered "prime soils" because they have few limitations

to productivity. Farmland may also be highly productive for specific crops and livestock grazing. A combination of soil quality, location, growing season, moisture supply, and technology may produce yields as great as those from prime soils. Many specialty crops in North County, such as strawberries, are grown on productive non-prime soils.

The contemporary agricultural economy of North County may be divided into three major geographic zones. To the east of Elkhorn Slough--in the Elkhorn Valley--strawberries, nursery crops, and mushrooms are the significant crops. Lands to the west (Springfield Terrace) and north (Pajaro Valley) contain considerable areas of prime soil and are devoted to the production of artichokes, broccoli, cauliflower, brussel sprouts, and fruit. South of Elkhorn Slough the farmland is taken up by artichokes, livestock grazing, and dairy farms. Additionally, nearly one-half of the Elkhorn marshlands and most of the former wetlands such as Moro Cojo are in various stages of reclamation, primarily for livestock grazing.

Several economic and environmental management issues are involved in preserving the economic viability of agriculture in North County. In the Salinas and Pajaro Valleys, agriculture has remained economically viable due to the rich soils, moderate climate and large parcel size found in these areas. At the present time, however, agricultural lands face threats from continued urban expansion in Castroville, Pajaro, Las Lomas, Prunedale, Moss Landing, Elkhorn, Oak Hills, and from other proposed developments. Residential development and speculation for future development raise the property value and tax of farmland adjacent to urban areas. Residential development also breaks up large farmland areas and competes with agriculture for high quality water.

One mechanism for combating high taxes and land speculation is the Williamson Act contract. The Williamson Act was passed by the State in 1965 for the purpose of alleviating these burdens on agricultural land. Williamson Act contracts offer tax incentives for agricultural land preservation by ensuring that land will be assessed for its agricultural productivity rather than for its "highest and best use." A landowner must agree to dedicate productive land in agricultural use for twenty years. There are currently 14 Williamson Act contracts in effect in North County, covering approximately 9,000 acres.

In North County other agricultural problems include water runoff and topsoil erosion from slope farming. North County is also facing water quality problems from groundwater overdraft and saltwater intrusion. In the Castroville area seawater has been intruding progressively further inland in the two major aquifers. Another aspect of water quality has to do with nitrate contamination of wells from septic tank effluent and from irrigation runoff.

2.6.1 Key Policy

The County shall support the permanent preservation of prime agricultural soils exclusively for agricultural use. The County shall also protect productive farmland not on prime soils if it meets State productivity criteria and does not contribute to degradation of water quality. Development adjacent to prime and productive farmland shall be planned to be compatible with agriculture.

2.6.2 General Policies

1. Prime and productive farmland designated for Agricultural Preservation and Agricultural Conservation land use shall be preserved for agricultural use to the fullest extent possible as consistent with the protection of environmentally sensitive habitats and the concentration of development.
2. Divisions of prime and productive farmland, designated as Agricultural Preservation, or Agricultural Conservation shall be permitted only when such division does not adversely affect the land's long-term agricultural viability. During the subdivision review process the applicant shall be required to demonstrate that the proposed division will not diminish the economic viability of the agricultural land. All subdivided agricultural parcels must be of a size that agricultural use is not diminished. All divisions of agricultural land shall be conditioned to ensure continued long term agricultural use by requiring recording easements, Williamson Act contracts or other suitable instruments. Subdivision or conversion of Agriculture Preservation or Agricultural Conservation farmland for non-agricultural use shall be permitted only where there is an overriding need to protect the public health and safety or where the land is needed to infill existing "developed" areas.
3. Conversion of uncultivated lands on steep and erodible soils to croplands shall be regulated by the County on a permit basis. Conversion shall be preceded by a detailed management plan.
4. The County should continue its agricultural preserve (Williamson Act) program and promote the inclusion of prime and productive land. Eligible landowners should be assisted by the County in becoming aware of Williamson Act benefits, preparing contracts, and securing tax benefits. Scenic or resource conservation easements will be encouraged as a suitable means for protecting agricultural lands of high scenic value adjacent to populated areas and where agricultural land does not qualify for the agricultural preserve program.

2.6.3 Specific Policies

1. A three-level system of land use categories shall be applied to prime and productive agricultural lands:
 - a. An agricultural land use designation for prime and productive agricultural lands, Agriculture Preservation, shall be applied to all parcels containing prime and productive agricultural soils (SCS Class I-IV), and other lands in cultivated agriculture of less than 10 percent average slope. Emphasis is placed on including large contiguous areas in this designation in order to restrict the encroachment of land uses that may threaten the agricultural viability of these lands.
 - b. An agricultural land use designation, Agricultural Conservation, shall be applied to: 1) relatively small pockets of prime agricultural soils (SCS Class I and II) that are not within or adjacent to the more extensive agricultural areas designated under the Agriculture Preservation land use category, 2) other productive agricultural lands generally characterized by slopes over 10 percent with erodible soils once an agricultural management plan has been approved, and 3) grazing lands where such a low-intensity agricultural use is the most compatible use of an area. The Agricultural Conservation category shall also be applied to lands not in areas designated under the Agriculture Preservation land use category that are placed into Williamson Act agricultural preserve contracts. Emphasis shall be placed on preserving the most viable agricultural areas of a parcel for agricultural use.
 - c. A very low-density residential land use designation that encourages agricultural use, Rural Residential, shall be applied to areas of mixed residential and agricultural uses and areas suitable for very low-density residential use and characterized by topographical and soil conditions generally posing greater erosion, water quality, and public safety hazards when under cultivation. Agricultural management plans as described in Specific Recommendations shall be encouraged for existing cultivated agriculture uses and required for new or expanded cultivation. Upon application and approval of an agricultural management plan and agricultural preserve contract, lands will be recategorized for Agricultural Conservation land use.
2. Development of Agriculture Preservation lands shall be limited to accessory buildings, including farm residences, and uses required for agricultural activities on that parcel. Subdivision shall be allowed for agricultural use

only with a minimum parcel size of 40 acres.

3. Development of Agricultural Conservation lands shall be allowed for agriculture-related facilities and very low-density residential use at a density of one unit per 40 acres. These uses shall be located, where possible, on the least agriculturally viable area of the parcel. The minimum parcel size for land divisions is 40 acres.
4. Development of Rural Residential lands shall be allowed for agriculture-related facilities and very low density residential use. These uses shall be located, where feasible, to conserve lands suitable for cultivation. The minimum density and parcel size is one unit per 40 acres or more to one unit per 5 acres as determined upon application and evaluation of site and area conditions.
5. Conversion of Agricultural Conservation lands to non-agricultural uses shall be allowed only if such conversion is necessary to:
 - a) establish a stable boundary between agriculture and adjacent urban uses or sensitive habitats; or
 - b) accommodate agriculture-related or other permitted uses which would economically enable continuation of farming on the parcel and adjacent lands.
6. For new development adjacent to agricultural areas, well-defined buffer zones shall be established within the area to be developed to protect agriculture from impacts of new residential or other incompatible development and mitigate against the effects of agricultural operations on the proposed uses. Subdivisions, rezoning, and use permit application for land adjacent to areas designated on the plan map for Agricultural Preservation or Agricultural Conservation shall be conditioned to require dedication of a 200 foot wide open space easement, or such wider easement as may be necessary, to avoid conflicts between the proposed use and the adjacent agricultural lands. For development adjacent to agricultural areas not designated for exclusive agricultural use, a reduced easement of not less than 50' shall be required. These easements shall extend the full length of the boundaries between the property to be developed and adjacent agricultural lands. Permanent roads may serve as part of this easement. Land within the easement shall be maintained in open space. Minor storage buildings or sheds associated with the residential uses, may be permitted as a conditioned use. The open space easement shall not be used for recreational areas as part of housing projects or public facilities.
7. Greenhouses and other agriculture-related operations that are not on-site soil-dependent or which degrade soil capabilities shall not be located on prime and productive

agricultural soils in the areas designated for Agricultural Preservation land use. Greenhouses that are on-site soil-dependent shall be located to allow the fullest use of the land for agricultural production. Greenhouses and other agriculture-related operations that do not require on-site soils may be located on Agriculture Conservation and Rural Residential lands on the less agriculturally viable areas of the parcel or in Light Industrial areas.

8. Conversion of uncultivated lands to crop lands shall not be permitted on slopes in excess of 25% except as specified in policy 2.5.3(4) of this plan and shall require preparation and approval of an Agricultural Management Plan. Conversion of uncultivated lands to crop lands on lands where 50% or more of the parcel has a slope of 10% or greater shall require a use permit. Approval of the use permit shall follow the submission of an adequate management plan. These plans should include analysis of soils, erosion potential and control, water demand and availability, proposed methods of water conservation and water quality protection, protection of important vegetation and wildlife habitats, rotation schedules, and such other means appropriate to ensure the long-term viability of agriculture on that parcel.

2.6.4 Recommended Actions

1. Monterey County shall develop a comprehensive agricultural management plan for existing and future agricultural uses in North Monterey County, in coordination with other appropriate public and private agencies, including but not limited to the County Agricultural Commissioner, Agricultural Extension, Soil Conservation Service, Monterey Coast Resource Conservation District, and the Farm Bureau. The goal of this plan would be the protection of long-term agricultural production, groundwater availability, water quality, and public welfare.
2. Monterey County should support the completion of the Castroville agricultural irrigation project currently underway, and should evaluate the potential applications of wastewater as needed to guarantee an adequate supply of high quality water. However, local funds shall not be spent on such projects not directly or indirectly supplying local benefits.
3. A program should be initiated to advise farmers on the availability of alternative (i.e., non-fossil fuel) energy generating equipment, including the use for energy production of agricultural wastes not otherwise usable for fodder or on-site soil fertilization.

2.7 AQUACULTURE

Aquaculture, the culture of aquatic plants and animals for human use, is an agricultural industry that in an aquatic medium, is a preferred use of appropriate coastal areas. Moss Landing and Elkhorn Slough have been the site of aquaculture use since 1923 when the Consolidated Oyster Company of San Francisco made experimental plantings of eastern oysters in the slough. Today, a number of aquacultural enterprises are active in Moss Landing and the Elkhorn Slough. These industries have become a valuable part of the North County, contributing to the area's economic growth and to the general research and development of an important industry.

Assistance and encouragement to aquaculture can be provided by ensuring that there is adequate physical area established for the growth of both shore-based facilities and for use by aquaculture of the waters of Elkhorn Slough and other suitable natural habitats. Protection of marine water quality is vital to the success of this industry.

Aquacultural activities also need to be compatible with other uses of the wetlands. Public access to, and recreational use of, Elkhorn Slough and adjacent intertidal areas must be considered while responding to the requirements of the aquaculture industry.

2.7.1 Key Policy

Monterey County encourages the further growth and development of aquaculture as a priority economic, research, and educational activity within the North County coastal zone, consistent with the need to provide for other activities, such as commercial fishing and recreational boating and fishing, and the need to protect wildlife and water resources.

2.7.2 General Policies

1. Aquaculture is encouraged in areas on the land use plan maps shown with an aquaculture overlay (Elkhorn Slough, the Salt Pond area, Moro Cojo Slough, and Old Salinas River) subject to the following criteria:
 - All necessary permits are obtained from agencies such as the Moss Landing Harbor District and the California Department of Fish and Game.
 - Aquaculture activities shall not be permitted that require major dredging, filling, or other significant alteration of coastal wetlands, streams, or shorelines, or conflict with other environmental or land use policies of the Local Coastal Program.
 - Aquaculture activities shall not be permitted in

established public shellfish gathering grounds or in areas with important stands of submerged vegetation (i.e. eel grass), and shall otherwise conform to Department of Fish and Game standards.

- Aquaculture shall not interfere with routes of established public access to the shoreline or with navigation in the main channel of Elkhorn Slough. To protect aquaculture facilities and the public, it may be necessary to construct fences or other devices around sites adjacent to public access areas and to clearly mark all structures in public waterways.
- 2. On-shore aquaculture facilities are encouraged as a desirable and permitted use in the areas designated Light Industry on the land use plan maps, consistent with other LUP resource protection policies.
- 3. On-shore aquaculture facilities shall be permitted as a conditional use, consistent with resource protection policies, within existing structure in areas designated Resource Conservation on the land use plan maps.

2.7.3 Recommended Actions

1. Monterey County should support the formation of a State Aquaculture Advisory Committee.
2. The County Environmental Health Department is encouraged to resume its water quality monitoring program, and to adapt it as necessary to provide an assessment of public health considerations regarding consumption of shellfish from local coastal waters.

2.8 HAZARDS

A principal objective of Coastal Act policy is to minimize risks to life and property in areas of high geologic, flood, and fire hazards. Therefore, new development should assure stability and structural integrity, and neither create nor contribute to erosion and landslide hazards.

The North County coastal area is located entirely within a seismically active portion of the Salinian Block. The most prominent geological feature in the vicinity is the San Andreas Fault which passes through San Benito County adjacent to North Monterey County. Other faults known to be active in the area include Vergeles, Pinecate, and Monterey Bay Faults. Seismic hazards are characterized by ground rupture, shaking, and failure. Ground shaking produces secondary effects such as structural damage, falling trees, power lines, fires, blocked roads, and broken water lines. Slope failures include rock falls, landslides, and mud debris flows.

Structures in flood plains, particularly 100-year flood plains, and adjacent to drainage channels pose severe hazards to occupants during storms. Flood-associated hazards also include road washouts, and loss of utilities, septic tanks, and leach fields. Damage to and contamination of water and sewage systems may result from high water levels, septic system failure, or flood-carried debris. Flood prone areas are those adjacent to the Pajaro, Old Salinas, and Salinas Rivers and Elkhorn, McClusky, Moro Cojo, and Tembladero Sloughs.

Due to the amounts of vegetation, steep slopes and prevailing weather conditions, moderate to severe wildland fire potential exists for much of North County. As an example, in 1978 the California Department of Forestry was called in to extinguish 68 wildland fires in this area. Wildland fires are a danger to lives and property, and continued residential development in North County increases the risk of fire.

The Department of Forestry's fire hazard severity classification system is used in determining wildland fire potential. Weather, slope, and vegetation are the principal factors in area classification. Although a significant portion of North County contains slopes greater than 30%, there are very few slopes in excess of 61% which is the critical upper limit of hazard severity. Most of North County has a moderate to high fire potential because of its vegetation or "heavy" fuel loading. Fire hazard severity has been determined to be low for the most intensely developed urban areas in Prunedale, Castroville, Moss Landing, Pajaro, Las Lomas, and Aromas; a moderate fire hazard exists for areas of North County with grassland or scrub vegetation; areas of oak woodland are high in fire potential.

For the purpose of applying the hazard protection policies of this plan, the following areas are defined as high hazard areas:

Seismic and Geologic Hazards

- zones 1/8 mile each side of active or potentially active faults areas of Tsunami Hazard
- areas indicated as "Underlain by Recent Alluvium" and "Relatively Unstable Upland Areas" in the County Seismic Safety Element
- Geotechnical Evaluation Zones IV, V, and VI on the County Seismic Safety Element maps
- Geotechnical Evaluation Zones V and VI on the Monterey Peninsula Map of the County Seismic Safety Element

Flood Hazard

- the 100-year floodplain

Fire Hazard

- areas classified as having a high to extreme fire hazard through application of the Department of

Forestry criteria

2.8.1 Key Policy

Land uses and development in areas of high geologic, flood, tsunami, and fire hazard shall be carefully regulated through the best available planning practices in order to minimize risks to life and property and damage to the natural environment.

2.8.2 General Policies

1. All development shall be sited and designed to minimize risk from geologic, flood, tsunami or fire hazards to a level generally acceptable to the community. Areas of a parcel which are subject to high hazard(s) shall generally be considered unsuitable for development. Any proposed development in high hazard areas shall require the preparation of an environmental or geotechnical report prior to County review of the project.
2. In high hazard areas, low intensity or open space uses will be encouraged as the most appropriate land uses. Critical facilities (fire, police, hospitals, emergency communication facilities, bridges and overpasses, public utilities, dams), shall generally be prohibited in high hazard areas.
3. New land divisions which create commitment to new or intensified development shall be approved only where it can be demonstrated that development of each proposed parcel and construction of the proposed access roads will neither create nor significantly contribute to erosion, geologic instability, flooding, or fire hazard, nor require construction of protective devices which would substantially alter natural landforms.
4. As part of the development review process, all proposed development, including single-family residences on lots of record, shall be evaluated for conformance and be required to comply with adopted hazard policies applicable to the site in question.
5. Those portions of parcels which are unsuitable for development due to the presence of geologic, flood, or fire hazards, shall not be included in computations of density for proposed developments.
6. In locations determined to have significant hazards, development permits shall include a special condition requiring the owner to record a deed restriction describing the nature of the hazard(s), geotechnical and/or fire suppression mitigations and, where appropriate, long-term maintenance requirements.

2.8.3 Specific Policies

A. Geologic Hazards

1. All development shall be sited and designed to conform to site topography and to minimize grading and other site preparation activities.
2. All structures, with the exception of utility lines where no alternative route is feasible, shall be sited a minimum of 50 feet from an active fault or potentially active fault. Greater setbacks may be required where it is warranted by local geologic conditions.
3. New roads across slopes of 30 percent or greater shall be allowed only where potential erosion and geologic impacts can be adequately mitigated, (i.e., the proposed construction will not induce landsliding or significant soil creep, nor increase the existing rates of erosion). Mitigation measures shall not include massive grading or excavation or the construction of protective devices that would substantially alter natural landforms.
4. Soils and geologic reports shall be required for all new land divisions and for construction of structures and roads on slopes exceeding 30 percent or in areas of known or suspected geologic hazards. Evaluations of potential on-site and offsite impacts shall be included in the report. Where geotechnical evaluation determines that the hazard is unlikely to lead to property damage or injury, roads and low density single-story construction is permissible if certified by a registered geologist/soils engineer that the proposed development will not result in an unacceptable risk of injury or structural damage and the County concurs. Such certification will be recorded with a copy of the deed at the County Recorder's Office.
5. Where soils and geologic reports are required, they should include a description and analysis of the following items:
 - a. geologic conditions, including soil, sediment, and rock types and characteristics in addition to structural features, such as bedding, joints, and faults;
 - b. evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity;
 - c. impact of construction activity on the stability of the site and adjacent area;
 - d. ground and surface water conditions and variations, including hydrologic changes caused by the development (i.e., introduction of sewage effluent and irrigation

water to the ground water system; alterations in surface drainage);

- e. potential erodibility of site and mitigating measures to be used to minimize erosion problems during and after construction (i.e., landscaping and drainage design).
 - f. potential effects of seismic forces resulting from a maximum credible earthquakes;
 - g. any other factors that might affect slope stability.
6. Where there is a dispute over the adequacy of a geotechnical report, the County will request that the report be reviewed by a registered geologist from either the U. S. Geological Survey or the California Division of Mines and Geology. The costs of such review are to be borne by the applicant.
7. As new soils and geologic investigations are completed and received by the County, the information contained therein shall be recorded and become part of the public record. Where appropriate, the results of such studies will be incorporated into the environment review or planning process, as supplements or supercedures to the more general information found in the Seismic Safety Element.

B. Flood Hazards

1. The County's primary means of minimizing risk from flood hazards shall be through land use planning and the avoidance of development in flood prone areas. The development of flood control projects to protect new development in the natural floodplain is not permitted.
2. All new development, including filling, grading, and construction, with exception of necessary utility lines and appurtenant facilities, shall be prohibited within the 100-year floodway. Where the location of the floodway has not been determined, it shall be considered to be the same as the floodplain until definitive studies demonstrate otherwise. Acceptable land uses will be limited to agriculture or to uses permitted in the Resource Conservation land use category.
3. All new development shall be located outside the 100-year floodplain to a maximum extent feasible. New development within designated 100-year floodplain areas shall conform to the guidelines of the National Flood Insurance Program. At a minimum, the lowest finished floor of new residential structures must be at least one foot above the 100-year flood level. New or more intensive development, including major flood control measures shall be allowed only if located outside the zone of riparian vegetation and only

where it has been conclusively demonstrated that the cumulative effect of the project in combination with all other existing and anticipated development will not cause an increase in the water surface elevation of the 100-year flood.

4. All residential, commercial, or industrial development proposed within designated floodplains shall require submission of a written assessment prepared by a qualified hydrologist or engineer as to whether it will significantly cause or contribute to the existing flood hazard as defined by Flood Hazard Policy No. 3. The assessment will be deemed adequate if the County Flood Control and Water Conservation District concurs.
5. Where development or flood control measures are permitted, the restoration of waterway banks and disturbed areas to a natural vegetated appearance should be required. Landscaping themes should emphasize the use of native plants which are appropriate to riparian corridors. Revegetation of disturbed riparian corridors by planting of native trees should be encouraged due to their role in absorbing and channelling the force of floods away from adjacent banks.
6. Continued agricultural use of the floodplains outside stream channels in the Pajaro and Salinas Valleys (including lands adjacent to the Old Salinas River), should be encouraged as the most appropriate land use compatible with the objectives of floodplain management and hazard mitigation.
7. All obstacles to effective drainage of coastal streams and sloughs, including faulty or inoperative tidegates, floodgates, or culverts, shall be eliminated through removal or repair of the drainage facilities consistent with policies of Section 2.3.

C. Fire Hazard

1. The hazard policies contained in the Safety Element of the Monterey County General Plan shall be regularly reviewed and consistently applied. The critical fire hazard map should be updated continually by the State Department of Forestry as new and more specific information becomes available from the required written assessments.
2. New subdivisions shall be avoided in very high wildfire hazard areas as determined by site-specific assessment.
3. Portions of a parcel(s) proposed for development which are characterized by a high to very high fire hazard shall only be developed if no less hazardous portion of the site is suitable for development and the development will not increase the threat of fire to the public.

4. Where development is approved within or immediately adjacent to areas of high to very high fire hazard, the County shall require the use of fire resistant materials in the construction of exterior walls and fire-retardant (tile, asphalt, treated fire-retardant shingles) materials in the construction of roofs.
5. Roads serving residential development in high fire hazard areas shall be adequate to serve emergency equipment.
6. Fire protection agencies are encouraged to establish educational programs in order to improve public recognition of citizens' responsibilities in fire prevention.
7. Monterey County should support the efforts of the various fire protection agencies and districts to identify and minimize fire safety hazards to the public.

2.8.4 Recommended Actions

1. Monterey County should continue to update and develop a more accurate and adequate data base for use in a regional geologic hazard plan. The study should include an investigation of existing critical facilities in moderate to high hazard areas and identify appropriate means for mitigating the level of risk involved (e.g., redesign or relocate the structures in question). This shall not apply to linear utility facilities and appurtenances.
2. For the purpose of review under the requirements of the California Environmental Quality Act (CEQA), the following action should be adopted:

Projects in hazardous areas should be made exceptions to the categorical exemption allowances of CEQA by designating such areas "of critical concern" where the cumulative impacts of successive projects may be significant.
3. The County shall review and periodically revise the County-wide Disaster Contingency Plan. All appropriate County and public agencies shall be included in all phases of disaster contingency planning.
4. The guidelines contained in the cooperative federal/state FIRE SAFE GUIDE FOR RESIDENTIAL DEVELOPMENT IN CALIFORNIA should be adopted by the County and form a basis for building standards in areas of moderate to high wildland fire hazard potential.
5. A cooperative flood control management plan for the Pajaro River Basin should be developed and implemented by the Counties of Santa Cruz and Monterey.
6. Floodgates or culverts should be renovated or expanded at the following locations: the Highway 1 crossings over the

Moro Cojo and Tembladero Sloughs, and the Potrero Road crossing over the Salinas River Channel.

2.9 ARCHAEOLOGICAL RESOURCES

2.9.1 Key Policy

North County's archaeological resources, including those areas considered to be archaeologically sensitive but not yet surveyed and mapped, shall be maintained and protected for their scientific and cultural heritage values. New land uses, both public and private, should be considered compatible with this objective only where they incorporate all site planning and design features necessary to minimize or avoid impacts to archaeological resources.

2.9.2 General Policies

1. Monterey County shall encourage the timely identification and evaluation of archaeological, historical, and paleontological resources, in order that these resources be given consideration during the conceptual design phase of land use planning or project development.
2. Whenever development is to occur in the coastal zone, including any proposed grading or excavation activity or removal of vegetation for agricultural use, the Archaeological Site Survey Office or other appropriate authority shall be contacted to determine whether the property has received an archaeological survey. If not, the parcel(s) on which the proposed development will take place shall be required to have an archaeological survey made if located:
 - a) within 100 yards of the floodways of the Pajaro or Salinas Rivers McCluskey, Bennett, Elkhorn, Moro Cojo, or Tembladero Sloughs, the Old Salinas River Channel or Moss Landing Harbor;
 - b) within 100 yards of any known archeological site (unless the area has been previously surveyed and recorded).

The archaeological survey should describe the sensitivity of the site and appropriate levels of development, and development mitigation consistent with the site's need for protection.

3. All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, etc., shall be explored to avoid development on sensitive prehistoric or archaeological sites.

4. When developments are proposed for parcels where archaeological or other cultural sites are located, project design shall be required which avoids or substantially minimizes impacts to such cultural sites. To this end, emphasis should be placed on preserving the entire site rather than on excavation of the resource, particularly where the site has potential religious significance.

2.9.3 Specific Policies

1. No development proposals in archaeologically sensitive areas or in areas described in policy 2.9.2(2) above shall be categorically exempt from environmental review.
2. When sufficient planning flexibility does not permit avoiding construction on archaeological or other types of cultural sites, adequate preservation measures shall be required. Mitigation shall be designed in accordance with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission. Any adverse impacts of development on archaeological or paleontological resources will be mitigated to the maximum extent feasible.
3. Off-road vehicle use, unauthorized collecting of artifacts, and other activities which could destroy or damage archaeological or cultural sites shall be prohibited.
4. Public access to or over known archaeological or paleontological sites should be limited, and concentrated in areas where supervision and interpretive facilities are available.

3. PUBLIC SERVICE SYSTEM

3.1 TRANSPORTATION

The prime transportation emphasis of the Coastal Act is to preserve highway capacity for coastal access and coastal-dependent land uses. Of primary concern in North County is the improvement of Highway 1 for safety and efficiency in carrying the increasingly large volumes of traffic using this corridor. Other transportation issues in the area include the adequacy of Highway 156 and other County roads which occasionally operate at capacity, the development of bicycle paths, and the improvement of the public transit system.

The status of the North County segment of Highway 1 as the primary transportation link for the major Monterey Bay cities and as the highway access along the coastline has induced growth in the numbers of motorists travelling on this corridor. Since 1955, the volume of traffic has resulted in increased congestion. Many proposals for highway improvement and realignment have been developed over the years, but actual highway improvement has been piecemeal. The capacity of the two-lane highway is limited by the numerous slow-moving trucks and agricultural vehicles, the amount and proximity of intersections and commercial entrances (especially in Moss Landing), restricted passing sight distances, and the lack of passing lanes.

Problems delaying the upgrading of Highway 1 are lack of state funding and the environmental concerns and loss of prime agricultural land associated with building a new alignment. Considering these constraints in view of the seriousness of the current traffic problems, the best alternative may be the construction of a four lane, divided highway on the existing alignment.

Upgrading of other highways and roads is needed to keep pace with increasing traffic volumes. In considering future development in North County, the capacity of the roads burdened by traffic generated by new development should be a major concern. Major arterials will need to be upgraded to provide a reasonable level of service and traffic safety. This is particularly true for Highway 156 which connects the Prunedale and Castroville communities and for the County roads which carry heavy volumes of traffic between Highway 1 and Highway 101.

If public transit is to address the problems of traffic congestion in North County, a much more comprehensive service network must be developed. Major recreation and employment destinations on the coast are not being served by the existing bus routes which link Watsonville to Salinas. Improvement of bicycle paths through clearer route markings, separation from heavy traffic, and connection of major recreation areas along

the coast is also desirable.

3.1.1 Key Policy

State highways within the North County coastal area should be upgraded to provide for a safe and uncongested flow of traffic. Major County roads should be expanded or managed to accommodate traffic volumes at Level of Service C. Public transit should be expanded to provide a viable transportation alternative.

3.1.2 General Policies

1. Highway 1 should be widened on the existing alignment to four lanes of traffic with necessary left-turn lanes as soon as possible to serve increasing traffic volumes and provide safer and less congested travelling conditions. Barriers should be constructed between the northbound and southbound lanes where necessary to control traffic turns and increase traffic safety. The following criteria shall be met before approval of a permit for highway expansion:
 - a) added lanes are needed to alleviate existing inadequate capacity and to facilitate safe access to developments with connections to the Highway and/or to Jetty or Moss Landing Roads.
 - b) any reconfiguration of the Elkhorn Slough highway bridge includes in its design the improvements identified in Table 2, item 12 as well as accommodating oil spill containment equipment.
 - c) mitigation for any adverse wetland impacts, approved by the Department of Fish & Game, has been included in the project and will be completed in conjunction with road construction such that the design does not require wetland fill.
2. Highway 156 should be expanded to four lanes of traffic on the current alignment as soon as funds are available.
3. Construction of access roads to Highway 1 and Highway 156 should be limited due to impacts on the safe and free flow of traffic on these highways. Wherever feasible, access roads should be consolidated to provide fewer points where vehicles can turn onto or off of the highway.
4. Improvements to Highway 1 and 156 and the design of access points, turnoffs, and intersections shall be consistent with the objectives and standards of a designated State Scenic Highway.
5. The major arterial roads in North County should be upgraded as necessary to serve the planned growth of North County. Other local, rural roads should be upgraded only as necessary to serve local traffic and not through-traffic demand.

6. New development in rural areas should be located in areas with sufficient road capacity to accommodate additional transportation demand. Where necessary, the capacities of roads and public transit systems should be expanded to serve the transportation demand of areas specifically planned for concentrated development. In areas with highly congested traffic conditions, coastal-dependent development generating low volumes of traffic shall be preferred.

3.1.3 Specific Policies

1. Due to the limited capacity of Highway 1 until the time it is expanded, development of coastal dependent industrial, agricultural, commercial, and recreational uses shall be given priority over non-coastal-dependent development in areas where Highway 1 provides the major transportation access.
2. Salinas Road, San Miguel Canyon Road, Hall Road, and San Juan Road should be designated as major arterial roads serving the North County coastal area. These should be upgraded as necessary to maintain Level of Service C traffic conditions. Wherever feasible, through traffic on these roads should be routed to State highways.
3. New access roads or commercial entrances on Highway 1 shall not be allowed unless it can be demonstrated that use of existing consolidated access points is not feasible or that easements for their use cannot be obtained. Consolidated access points with adequate lanes for acceleration, deceleration, and, if appropriate, left turns shall be required for expansion of roadside commercial uses resulting in significant increases in traffic exiting and re-entering State highways and major County roads. New roadside commercial uses on these roads shall be discouraged unless traffic can be regulated to cause no increase in safety hazards to the travelling public.
4. Access to new development at the Highway 156-Castroville Blvd. intersection should be via Castroville Blvd. only.
5. A program should be undertaken to provide public transit service to Royal Oaks Park, Manzanita Park, the North County State beaches, and Moss Landing when feasible. Service should be at a level that is adequate to attract ridership and provide an alternative to automobile transportation.
6. Bicycle shoulders should be provided and routes signed along Maher Road, Castroville Boulevard, and Dolan Road.
7. The Bicentennial Bicycle Route should be improved by separating the bicycle path from Highway 1 traffic between the Pajaro River and Molera Road.

3.1.4 Recommended Actions

1. The State Department of Transportation shall initiate a study for the widening of the existing Highway 1 alignment. During evaluation of alignment adjustments for expansion, attention should be given to minimizing encroachment on agricultural uses, environmentally sensitive habitats and commercial uses. Alternative alignments for the Bicentennial Bicycle Route in this area should be considered in the study.
2. The County shall evaluate options for providing bicycle shoulders along Maher Road, Castroville Boulevard, and Dolan Road.

3.2 WASTEWATER MANAGEMENT FACILITIES

Policies of the California Coastal Act which address issues related to wastewater management focus on limiting construction of public works projects to accommodate only levels of growth consistent with Coastal Act provision, defining areas appropriate for new growth, and maintaining healthy and safe coastal waters and inland water resources.

In North County, wastewater is generally treated using individual or community septic systems. Two private wastewater treatment facilities currently operate in the North County Coastal Zone, one serving the Oak Hills Subdivision, and the other serving the Monte del Lago Mobile Home Park. Projects extending service into coastal zone areas from the Watsonville and Castroville wastewater treatment plants have been proposed and are in various stages of completion. The Monterey Peninsula Water Pollution Control Agency has proposed a regional wastewater collection, treatment, and disposal system. The future of the regional system is uncertain, but if completed as proposed, it would serve the Castroville and Moss Landing areas and would have the capacity to serve other North County areas as well.

Communities which are currently experiencing the greatest septic system failure rates include Las Lomas, Moss Landing, and to a lesser degree, Fruitland. The Monte del Lago Mobile Home Park and the North County High School have temporary treatment systems and are required by the State to connect to public sewers when they become available. Oak Hills is included in the Castroville Sanitation District expansion plan. These areas are considered most appropriate for high density development and are targets for proposed sewer extensions from the Watsonville and Castroville wastewater treatment systems. The proposed collection systems have limited capacities which must be allocated according to Coastal Act priorities for service of existing uses and development of coast-dependent uses before additional non-coast-dependent uses are developed.

To assist in the maintenance of stable boundaries separating urban and rural areas, urban services lines are shown on Figure 1 around areas of existing or planned Medium and High Density Residential development. It is generally assumed that prior to full buildout in these areas that public or community services, especially wastewater, will be needed. In areas which are to be maintained in a generally rural character (Rural and Low Density Residential, and Agricultural Preservation and Conservation areas) densities have been set sufficiently low so that urban services will not be necessary. Commercial and industrial uses shown outside the urban service boundaries are limited to intensities which will not require urban services.

In summary, wastewater issues in the North County Coastal Zone are: (1) the viability of environmentally sensitive habitats in the area, many of which are dependent on relatively clean surface water; (2) the public health; (3) the escalating costs of providing sewer service, particularly to low density or remote areas; and (4) the long range planning questions which depend heavily on accurate information regarding the area's carrying capacity and the timing of sewer system development.

3.2.1 Key Policy

The rural areas of North County should continue to be served by septic or other high technology on-site wastewater management systems at appropriate densities to avoid individual or cumulative effects to public health and natural resources. Centralized sewers and treatment service should be provided for areas designated for high density development concentration and infilling, and areas which present significant public health hazards due to continued failure of on-site systems which cannot be corrected by on-site wastewater management programs.

3.2.2 General Policies

1. Capacity for a wastewater management service area shall be reserved according to the following ranking of priorities, especially in areas where the capacity of wastewater collection and treatment facilities are limited:

(1) Existing uses within the service area; (2) New or expanded coastal-dependent industries within the service area; (3) New or expanded essential public services, basic industries and recreational uses, or minimum other uses on vacant parcels within the service area; (4) all other uses. If additional capacity is available after the above uses are served, and infilling has occurred, then the service area may be expanded to adjacent areas according to the same ranking of priorities. Specific service priorities for the Moss Landing wastewater collection system are described in Chapter 5.

2. New public sewer services shall not be extended outside of the urban service lines shown in Figure 1. Exceptions to

this policy shall be considered only when necessary to resolve public health problems. Capacities of wastewater collection or treatment facilities should be limited to levels necessary to serve those areas contained within the urban service lines shown in Figure 1.

3. Agricultural lands shall not be included in any future expansion or adjustment of service areas unless the site is specifically designated as necessary to accommodate the infilling of a developed area. Sewer lines shall locate away from agricultural lands where possible. Where sewer lines are required to run through agricultural lands, such lands shall not be served by sewer.
4. A wetland restoration program for degraded wetlands now used as sewage treatment ponds shall be required in the event that Oak Hills or Monte del Lago connect to the Castroville or regional wastewater treatment plant. The wetland restoration program must be consistent with the resource protection policies of this plan.
5. No wastewater collection and treatment assessment of properties outside a designated wastewater district service area should be levied. In addition, parcels within a service area that cannot support development due to site constraints should not be assessed beyond its current use.

3.2.3 Specific Policies

1. Expansion and development of coast-dependent uses in Moss Landing shall have priority for wastewater collection and treatment service over non-coast-dependent development in the proposed Castroville service annexation area which will be served by the same wastewater treatment system.
2. The Fruitland area should be considered as a future concentration of development area to be served by the Pajaro Sanitation District.
3. The expanded Castroville County Sanitation District service area in the vicinity of Oak Hills shall be limited to the north of Highway 156, east of Castroville Boulevard and south of Meridian Road and the adjacent agriculture, in order not to conflict with the preservation of large areas of agricultural land adjacent to the boundaries and to concentrate development.
4. Prunedale and Castroville should be considered as an area for future extension of the proposed regional wastewater management system in order to support residential development and regional commercial development serving areas within the North County coastal zone.
5. Wastewater collection and treatment systems shall be constructed in a manner to minimize impacts to natural and

visual resources.

6. Appropriate odor controls should be included in constructing new wastewater transport and treatment facilities.

3.2.4 Recommended Actions

1. The County should support wastewater reclamation research and projects that could contribute to the solution of the problem of increasing saltwater intrusion in North County. Reclamation opportunities to be pursued should include retention of the Castroville plant until an alternative reclamation project is in effect; allowing reclaimed wastewater pipelines as a permitted use in agricultural areas (citing a preference to locate outside of cultivated fields); and requiring reclamation to the maximum extent feasible.
2. New development especially that served by sewers should have water conservation devices installed in the plumbing system to minimize the rate of groundwater withdrawal and potential overdraft. This should be required on permits issued by the Building Department.
3. The State Water Resources Control Board should reevaluate their funding level of wastewater management projects on the coastal zone to account for levels of development, especially coast-dependent development, designated in the Local Coastal Plan.

4. LAND USE AND DEVELOPMENT

4.1 INTRODUCTION

The majority of land in North County is in open space, agricultural, or low density rural residential use. The overall character of the North County coastal zone is decidedly rural; extensive areas are uncultivated or undeveloped. The coastline of North Monterey County along Monterey Bay is composed of sand beaches and dunes. An extensive estuarine area is found in North County which has received national attention. The wetland area of Elkhorn Slough has been designated as a National Estuarine Sanctuary and the remainder a proposed National Wildlife Refuge. Other estuarine areas include: Bennett Slough, McClusky Slough, Moro Cojo Slough, and the Old Salinas River Channel. Two rivers, the Pajaro and the Salinas, flow through the coastal zone and Carneros Creek forms the major freshwater tributary to Elkhorn Slough. These estuarine and freshwater wetlands support a diversity of vegetation and wildlife and are important breeding areas for fish and birds.

The North County area was once extensively covered with oak trees and chaparral. These areas are now mostly confined to the slopes and ridgetops east of Elkhorn Slough. Grazing areas ranging from a few acres to a couple hundred acres are scattered throughout the area.

Agriculture is the main economic activity in the area. The Pajaro Valley, Salinas Valley, and Springfield Terrace are extensively farmed in row crops. The cool, moist maritime climate is particularly conducive to their cultivation. Agriculture, mostly artichokes or strawberries, is also found in the upland areas of Moro Cojo Slough, Elkhorn Slough, and the sandy hill areas east of Elkhorn Slough.

4.1.1 Recreational Land Use

Recreation and visitor-serving facilities of North Monterey County are concentrated in the vicinity of Moss Landing and along the sandy coastline. Developed facilities consist of docks and piers used for fishing, numerous antique shops, shoreline restaurants, and Moss Landing Harbor. Natural recreation resources, some of which are devoid of any facilities or substantial access, include miles of beaches and dunes, an extensive estuary and tidal wetland system, the Pajaro and Salinas Rivers, and the wooded hills and ridges inland from the coast.

A moderate level of recreational use with limited facility development could be supported in areas including beaches, the wooded inland hills, and the Salinas and Pajaro Rivers. An extensive and coordinated management program for these natural resources may be a first step in encouraging increased

recreational use in these under-utilized areas. A strong management program may also mitigate some of the problems pervasive in the shoreline areas such as vandalism, littering and dumping, fire, theft, off-road vehicle traffic, and damage to coastal dune vegetation.

Notable among facilities which are lacking in North County coastal areas are overnight accommodations and camping facilities. There is a need in the area for these facilities, but appropriate sites for development are limited due to extensive presence of agriculture and environmentally sensitive habitats. Due to the sensitivity of many of the North County natural resources and the lack of a substantial park management and supervision program at this time, development of new recreational facilities must be approached cautiously. Development sensitive to the fragility of the resources of the area and to the recreational needs of the community and region is appropriate and timely.

4.1.2 Residential Land Use

The majority of residences in North County are spread out at low densities. The area along the coast has few residences outside of Moss Landing as much of the area contains wetlands, dunes, and agriculture. The hill area to the west of Elkhorn Slough contains about 6% of the housing. Very low density residential development occurs in the more rural agricultural areas. Low density residential development on parcels of 1 to 10 acres is prevalent in the coastal zone boundary. Low density residential development also occurs along Maher Road and San Miguel Canyon Road. Higher density residential development is found in Las Lomas, Fruitland, Oak Hills, and other scattered locations.

There are currently about 3,820 parcels in the coastal zone of which 25% are vacant. About 57%, or 21,900 acres, are currently zoned for residential use. The residential buildout of the coastal zone under existing zoning is 9,240 units. An area of about 6,850 acres is zoned "Unclassified". An additional 2,750 units could potentially be developed in this area at the 2.5 acres per building site criteria of this zoning district. However, most of the Unclassified area is in agricultural use and would not be builtout for residential use.

The overall average parcel size for the North County Coastal area is 9.5 acres. Excluding the "developed areas" of Moss Landing, Las Lomas, and Oak Hills/Monte Del Lago which have water systems and will have sewers, the average parcel size of the Coastal Zone is about 15 acres. This "undeveloped area" can be divided between the predominantly agricultural land west of Castroville Boulevard and Elkhorn Slough and the mixed agricultural and residential land to the east. The western area has an average 9 acres per parcel. The predominantly residential "undeveloped area" east of Elkhorn Slough and Castroville Boulevard has an average parcel size of 3 acres. The residen-

tial areas are designated for low-density residential use in the proposed land use map.

4.1.3 Housing

The Mid-Decade Census, 1976, reported 3,214 housing units in the North County segment. It is now estimated that there are 3,820 units. Of the 291 vacancies recorded by the Mid-Decade Census, 69 were for sale or rent and 42 were second homes. Of the 51 units available for sale, 32 were in Oak Hills Subdivision and not affordable to low and moderate income families. The effective vacancy was 2.15% slightly above the 1.95% figure for the County's unincorporated area. Three-fourths of the housing units were of the single family type, and of these, one-third were mobile homes. Homeownership was at 56%, a slight majority over renters. There were only 55 multiple family units in the area, reflective of its rural character. The 1970 windshield survey of housing condition revealed 27% of the existing houses were substandard. The estimated median income for the area is \$12,980, with half the responding households classified as low and moderate income. This implies difficulty in acquiring and maintaining affordable housing. The census found that less than four percent of the 620 persons listed as farm workers listed their main residence as being outside Monterey County. This finding is significant because it indicates the presence of a permanent farm labor work force compared to the migrant work force of recent years. Housing condition, low vacancy, low income, and the special conditions of farm workers appear to be the key housing problems in the area.

4.1.4 Commercial Uses

North County contains a low level of commercial development which is generally consistent with its rural character. Many of the commercial uses within the coastal zone are concentrated in Moss Landing. Restaurants, antique shops, marine supply, and service facilities are found here. Small-scale commercial uses; stores, restaurants, and gas stations, are also located on Salinas Road, Hall Road, Elkhorn Road, Maher Road, and Highways 1 and 156. The major commercial centers serving the coastal area are in Castroville, Marina, Prunedale, Salinas and Watsonville.

4.1.5 Industry

Industrial uses are also concentrated in Moss Landing. These uses include fish and shellfish processing, boat building, PG&E's power plant, and Kaiser's magnesia and refractory brick factory. Aquaculture is an expanding industry with high growth potential due to the adjacent estuaries. Cochran Airport Industries assembly plant is located on Meridian Road. Agricultural packing plants, mushroom farms, chicken farms, and greenhouses are scattered throughout North County. A few auto wrecking areas are found in the coastal zone; one is in the midst of cultivated agriculture. The land adjacent to Highway 1

north of Marina is a potential industrial expansion area for the city.

4.1.6 Public Facilities

Public uses include three State beaches, two County parks, a wildlife management area at Salinas River Lagoon, an estuarine sanctuary adjacent to Elkhorn Slough, Elkhorn Slough, a harbor in Moss Landing, a small Harbor District park off Elkhorn Slough, four elementary schools and a high school, the Moss Landing Marine Laboratory, the Moss Landing Post Office, and several churches, cemeteries, administrative buildings, and County and State roadwork yards.

4.2 LAND USE PLANNING ISSUES

The North County coastal area is faced with several key issues that directly affect future planning and development. The preservation of coastal resources including agricultural soils; environmentally sensitive habitat areas of estuaries and other wetlands, dunes, riparian areas, and oak woodland/maritime chaparral areas; water quality as impacted by point and non-point pollution, circulation and sedimentation from erosion; recreation and access opportunities; and the visual resources characteristic of the coast are prime issues of importance. The availability and quality of groundwater related to overdraft, nitrate contamination, and saltwater intrusion problems is also a major issue. North County is affected by a range of geologic, flood, and fire hazards that must be taken into account while planning for land use and development.

The limited capacities of roads, highways, schools, and public wastewater treatment systems is an issue affecting potential growth in the area. The need for additional, affordable housing is becoming an increasing concern. A related issue is the need to determine appropriate areas to concentrate development to offer the potential for provision of affordable housing while retaining the overall rural character of North County.

The protection and expansion of the commercial fishing harbor and support facilities in Moss Landing is an issue that is addressed along with development of coastal dependent energy facilities in the Moss Landing Community Plan.

4.3 LAND USE PLAN AND DEVELOPMENT POLICIES

The prime objective of the North County Local Coastal Program is to plan for appropriate levels of land use and development in the coastal zone while protecting coastal resources and providing or maintaining coastal access and recreation opportunities. A second objective is to maintain the rural character

of North County with its predominant agricultural, low density residential and open space uses while clustering medium and high density residential development in areas where water, sewer, and transportation services are available. No commercial centers are recommended for the coastal zone except for the coastal-dependent commercial development of Moss Landing. Commercial growth should be concentrated in existing population centers of Castroville, Prunedale, Watsonville, and Salinas. Small-scale commercial facilities such as grocery stores and laundromats are recommended in residential areas to reduce transportation distances for frequently needed goods and services that can be provided at a local level. Industrial uses should be located near major transportation facilities and population centers. The only industrial facilities particularly appropriate for North County are ones which are coast or agriculture dependent.

The capabilities and constraints of areas of North County to support various types and densities of land uses are reflected in the proposed land use map. Land uses are designated on the proposed land use map according to an evaluation of existing uses, appropriate levels of use to protect coastal resources, and levels of development that can be accommodated by public works systems, such as wastewater collection and treatment, and roadways. Final determinations of densities and land use locations on a parcel will be made during the project review process.

4.3.1 Land Use Categories

Land use categories recommended for the North County Coastal Zone are listed below. The Moss Landing Community Plan will have additional categories for commercial and industrial uses. The proposed land uses reflect both existing and traditional land uses and the priorities of the Coastal Act.

A. Resource Conservation

Protection of sensitive resources, plant communities, and animal habitats is emphasized. This land use is applied to wetlands, dunes, and riparian corridors under the Wetlands and Coastal Strand Category, and to sensitive forest and upland habitats -- under the Forest and Upland Habitat Category. Only very low intensity uses and supporting facilities compatible with protection of the resource are allowed. Uses would include low intensity recreation, education, and research, and where no feasible alternative exists, essential public utility lines outside of Elkhorn Slough. Public utility lines shall be undergrounded unless environmentally unfeasible. Forest and Upland Habitat areas generally can support moderately higher intensities of use than Wetland and Coastal Strand areas. In appropriate wetland areas, aquaculture would also be encouraged, Agricultural uses which would destroy or disrupt the habitat area are not allowed.

B. Scenic and Natural Resource Recreation

Low intensity recreational and educational uses that are compatible with the natural resources of the area and require a minimum level of development accommodating basic user needs and necessitating minimal alteration of the natural environment are appropriate. Uses may include hiking, fishing, picnicking, nature study, backpacking, horse riding, and walk-in camping.

C. Outdoor Recreation

Moderate intensity recreational use with accompanying facilities compatible with the recreational and natural resources of the site are appropriate for these areas. Facilities may include parks, tent and recreation vehicle campgrounds, stables, bicycle paths, improved restrooms, and launching ramps.

D. Golf Courses

Golf courses and related clubhouse facilities are appropriate in this category.

E. Agriculture Preservation

Preservation of agricultural land for exclusive agricultural use is required. The designation is applied to the prime and productive agricultural lands where the area does not generally exceed an average 10 percent slope. Major importance is given to the preservation of large, continuous areas of agricultural land capable of long term productivity in order to protect its viability from encroaching conflicting land uses. Development of residences, accessory buildings and uses required for agricultural activities on the parcel is allowed. Development of non-agricultural facilities is not allowed. A minimum parcel size of 40 acres is allowed for land divisions for agricultural purposes.

F. Agricultural Conservation

Conservation of viable agricultural land is emphasized. The Agricultural Conservation land use is applied to: a) relatively small pockets of prime agricultural soils (SCS Class I and II) that are not within or adjacent to the more extensive agricultural areas designated under the Agriculture Preservation category; b) upon application, other productive agricultural lands generally characterized by slopes over 10% and erodible soils once an agricultural management plan has been approved; and c) grazing lands where such a low intensity agricultural use is the most compatible use of an area. The Agricultural Conservation category is also applied to lands not in areas designated under the Agriculture Preservation land use category that are placed into agricultural preserve contracts. Agriculture-related uses and very low density residential use at one unit per 40 acres are allowed on the less agriculturally viable areas of the parcel. A minimum parcel size of 40 acres is required for subdivision.

G. Rural Residential

Low density residential and agricultural development is the primary use of this category. Development densities from 1 unit on 40 or more acres to a maximum of 1 unit per 5 acres would be allowed according to an evaluation of existing resource and public facilities constraints, and the residential character of the area. Site densities will be determined upon application review.

H. Low Density Residential

Low density residential development is the primary use of this category. Agricultural land use is limited in order to decrease cumulative erosion and water availability impacts. Agricultural management plans will be required to clear land for cultivation. Bare land will be limited to a set percent of the parcel. Development densities from 1 unit to 10 or more acres to a maximum of 1 unit per 2-1/2 acres would be allowed according to site evaluation of resource and public facility constraints.

I. Medium Density Residential

Medium density residential use at 1 unit or more per acre to 4 units per acre is allowed according to site-specific evaluation of resource and public facility constraints.

J. High Density Residential

High density residential use at 5 to 10 units per acre is allowed according to site-specific evaluation of resource and public facility constraints. New development in these areas are designated for Special Treatment in order to facilitate a comprehensively planned project. Small-scale commercial uses serving residents of the development are encouraged at those locations indicated on the plan map.

K. General Commercial

A wide range of commercial uses including merchandise and service facilities are allowed in this category. Small-scale commercial uses serving local neighborhoods are shown at specific locations on the plan map.

L. Light Industry

This includes such industries as fish processing, aquaculture processing, limited-scale boat building, boat repair, agriculture processing, and other agriculture-related or coastal dependent operations not engaged in heavy manufacturing or requiring extensive plants for operation.

M. Heavy Industry

This includes such industries as PG&E's power plant and Kaiser Refractories in Moss Landing.

N. Public/Quasi Public

A range of uses including administrative, management, and maintenance facilities for public agencies, community halls, churches, post office, libraries, and schools are allowed. Many of these uses are appropriate in areas designated for residential use.

4.3.2 Land Use Locations

The preliminary proposed land uses for the North County coastal zone are shown on the proposed land use map. The wetland areas of Elkhorn Slough, Bennett Slough, Moro Cojo Slough, Castroville Slough, and the Salinas River are designated Resource Conservation, Wetlands and Coastal Strand. This designation is also given to the Marina Dunes area between the Salinas River and Marina which is recommended for a wildlife reserve in this plan, a small lowlands area of Armstrong Ranch adjacent to the Marina Dunes, and the Salinas Wildlife Area which is a national wildlife refuge. The steep undeveloped slopes immediately adjacent to the west bank of Elkhorn Slough and the upland area of the Elkhorn Slough Estuarine Sanctuary which has recently been purchased by the State Department of Fish and Game is recommended for Resource Conservation, Forest and Upland Habitat. This category is also applied to the Nature Conservancy lands in the Las Lomas area. These applications are consistent with protecting the major sensitive habitat and resource areas in North County.

The beaches of the coast north of the Salinas River, including Salinas River State Beach and Zmudowski State Beach are designated for Scenic and Natural Resource Recreation. The recreation areas in North County that currently have or are planned for facilities supporting moderate to intense outdoor recreational activity are recommended for Outdoor Recreation land use. This includes Royal Oaks County Park, Manzanita County Park, Kirby Park, and the northern area of Salinas River State Beach by the parking lots. Other recreation areas will be included in the Moss Landing Community Plan Area. The Pajaro Golf Course is designated for Intense Recreation.

The Agriculture Preservation designation is recommended for the prime and productive agricultural lands of the Pajaro Valley, Springfield Terrace, Salinas Valley, and Moro Cojo Slough uplands area. Virtually all of this land is currently under cultivation. In some instances where grazing is the primary existing agricultural use, large areas of these properties have soil capabilities similar to adjacent cultivated land and capable of supporting productive cultivated agriculture.

Scattered areas of prime agricultural land along Carneros Creek and lands in agricultural preserve contracts not included under the Agriculture Preservation category are designated for Agricultural Conservation. The slopes and ridges above the Pajaro Valley was also designated for this use. Other grazing lands on the slopes of Elkhorn Slough are also included under Agricultural Conservation. A small area of land south of the Salinas River is also included in this category.

The majority of land in North County that is not agriculture, wetlands, or dunes is currently in low density rural residential use. Rural Residential and Low Density Residential land use is recommended for virtually all the non-prime land and land not in agricultural preserve contracts in the east half of the coastal zone. In much of this hilly, sandy area, low density residential use would likely result in lower erosion, water availability, and habitat impacts than the expansion of cultivated agriculture. Rural Residential areas are designated for the more undeveloped and agricultural areas. Areas that have a pronounced residential character and have experienced extensive land divisions are designated for Low Density Residential land use. This includes areas adjacent to Paradise Canyon Road, Hudson Landing Road, San Miguel Canyon and Maher Roads, and between Meridian Road and Castroville Boulevard.

Medium density residential use is recommended for the existing development in the Monterey Dunes Colony, Struve Road area, Las Lomas/Fruitland area and the Oak Hills area.

High density residential development is recommended under a special treatment designation for Villa Nueva east of Castroville Boulevard, the Barcasa/Monte Del Lago Area, the land by Hall School in the LasCanyon Road, Hudson Landing Road, San Miguel Canyon and Maher Roads, and between Meridian Road and Castroville Boulevard.

Medium density residential use is recommended for the existing development in the Monterey Dunes Colony, Struve Road area, Las Lomas/Fruitland area and the Oak Hills area.

High density residential development is recommended under a special treatment designation for Villa Nueva east of Castroville Boulevard, the Barcasa/Monte Del Lago Area, the land by Hall School in the Las Lomas area, and the parcel in the Pajaro Golf Course. A planned mix of densities and housing types are encouraged for these areas.

Also under a special treatment designation is the "Trails End Mobile Manor" property on Dolan Road. The sole intent of this designation is to provide for a 10 space addition to the existing 30 space mobile home park. The designation would provide an opportunity to complete the development as originally approved by the County. Inherent in this designation is the requirement that the additional development be consistent with the applicable policies of this plan and the Coastal Act. The

additional development will be subject to the land use permit process (i.e. use permit, coastal development permit, etc.) applicable at the time the additional development is proposed. Any alternate development proposed for the land will be subject to the densities and policies of the "Rural Residential" designation of this plan.

The existing commercial uses along Highway 1 outside of Moss Landing and at several other locations are designated for General Commercial land use. Any expansion of these facilities will require improved parking and Highway 1 access designed to minimize traffic conflict and hazards. No large-scale commercial areas or shopping centers are recommended for the area covered in the proposed land use map.

Industrial development in the rural areas of the coastal zone is generally not appropriate. However, there is a coastal-dependent industry, PG&E, in the planning area on Dolan Road. An oil tank farm is located on this property. This site and a portion of an adjacent property containing auto wrecking yards is recommended for Heavy Industry and Light Industry Categories. The industrial uses allowed must be compatible with agriculture and the preservation of the resources of Elkhorn Slough. The Armstrong Ranch area east of Highway 1 is designated for Light Industry. Special Treatment Areas are designated for the Dolan property and the Armstrong Ranch. Agriculture-related or coast-dependent industries are recommended for these light industrial special treatment areas. In the case of the Dolan property, this designation is not intended to prohibit the wrecking yards from continued operation. Renewal of use permits for these operations will be based on the merits of the specific proposal and feasible mitigation measures to offset any adverse impacts of continued operation.

Special Treatment areas are intended to facilitate a comprehensive planned approach towards developing industrial and high density residential uses. Special attention is to be given towards siting and planning for compatibility of the facilities with existing resources and adjacent land uses. These areas are designated for intense levels of development so that other rural areas may experience lower development concentrations; therefore maximum use of the site should be made while protecting against adverse impacts. Where appropriate in residential development, areas of prime soils should be planned for integrated open space use such as community gardens, landscaping, and other uses utilizing the soil.

4.3.3 Potential Buildout

The proposed land use plan allows significant increases in housing units. The exact amount will be determined as proposals are submitted for individual properties. The densities allowed under residential land use categories are set as a range. The amount of development within this range will be determined by the site characteristics of the property.

There are now about 3,750 housing units in the North County coastal zone outside of the Moss Landing planning area. The North County land use plan would allow a buildout ranging from 6,165 to 7,835 housing units. This is respectively a 64% and a 109% increase in available housing. The true buildout based on site considerations and the requirements of resource protection and development policies will be within the described range. Appreciable increases in housing in the future could be made by designating additional areas for high density development.

4.3.4 Key Policy

All future development within the North County coastal segment must be clearly consistent with the protection of the area's significant human and cultural resources, agriculture, natural resources, and water quality.

4.3.5 General Policies

1. The rural character of the coastal area of North County with its predominant agricultural, low-density residential and open space land uses shall be retained. Prime and productive agricultural soils shall be protected for agricultural use.
2. Residential development at medium to high densities shall be concentrated in areas with adequate sewer, water, and transportation services. The Las Lomas/Fruitland area, Oak Hills, and Moss Landing areas are appropriate for concentrated development. These areas shall be developed within established urban/rural boundaries before additional land is designated for concentrated development.
3. The provision of recreational opportunities and facilities shall be compatible with the preservation of the natural resources of the coast. Low to moderate intensity outdoor recreational use shall be emphasized within the State beaches and wildlife refuges. Higher intensity use shall be emphasized in Moss Landing and inland recreation areas.
4. Where there is limited land, water, or public facilities to support development, coastal-dependent agriculture, recreation, commercial and industrial uses shall have priority over residential and other non-coastal-dependent uses.
5. Development of non-coastal-dependent commercial facilities shall be limited to that necessary to serve local neighborhoods and communities. Strip commercial development shall be prohibited. Area-wide shopping facilities should be centrally located in areas of urban development that are easily accessible. Potential areas for such uses are adjacent to the coastal zone at Castroville and Prunedale.

6. Industrial uses shall be located near major transportation facilities and population centers. The only industrial facilities appropriate for the area are coastal or agriculture-dependent industries which do not demand large quantities of fresh water and contribute low levels of air and water pollution. Industries not compatible with the high air quality needed for the protection of agriculture shall be restricted.
7. New subdivision and development dependent upon groundwater shall be limited and phased over time until an adequate supply of water to meet long-term needs can be assured. In order to minimize the additional overdraft of groundwater accompanying new development, water conservation and on-site recharge methods shall be incorporated into site and structure design.
8. Development within the North County coastal zone shall be consistent with the land uses shown on the plan map and as described in the text of this plan.
9. Development and use of the land, whether public or private, must conform to the policies of the plan, must be consistent with the availability of public services and with established urban service lines, and must meet resource protection standards set forth in the plan.

4.3.6 Specific Policies

A. Resource Conservation

1. Only the minimum level of facilities essential to the support of recreational, educational, scientific, or aquacultural use of Resource Conservation areas shall be permitted. Facilities shall be sited so as to avoid adverse impacts to environmentally sensitive habitats and wildlife.
2. Development that would threaten rare and endangered plant and animal species in the Resource Conservation areas shall not be allowed.

B. Agriculture

1. The agricultural resource policies presented in Chapter 2 provide the basic criteria to protect agriculture and guide agricultural activities. These will be considered in all development applications.
2. Agricultural use and development shall conform to the resource protection policies of Chapter 2. Management of agricultural operations should be particularly sensitive to the protection of water quality and biological life in wetland and riparian areas.

3. Development of agriculture-related uses such as farm labor housing, greenhouses, warehouses, packing sheds, mushroom farms, etc., that are not on-site soil dependent shall be located in Light Industrial areas, or as a conditional use in Rural Residential and Agricultural Conservation areas. In Agricultural Conservation or Rural Residential areas, such uses shall be permitted only on the portions of the property that do not contain viable prime or productive soils. The existing mushroom farms and egg farm on Trafton and Bluff Roads are non-conforming uses that, if destroyed by fire or natural disaster, may be rebuilt on the same site. Three commercial agricultural uses (sales stands at the Highway One corners of Jensen and Molera Roads, and a packing operation between Struve and Jetty Road) are necessary adjuncts to agricultural lands surrounding them, and will be permitted uses under this plan.

4. On parcels of 40 acres in Agricultural Preservation and Agricultural Conservation areas shown on the Land Use Plan Map, a second family residence may be developed in addition to one existing family residence without requiring a land division if no division of interest in the land results. The development of an additional family residence shall not diminish the agricultural viability of the land.

C. Recreation

1. The North County beaches and dunes, with the exception of the Moss Landing State Beach, the beach adjacent to the developed area of the Moss Landing "Island" and the existing parking lot areas of the Salinas River State Beach shall be maintained at a low level of development to protect dune habitats and preserve the natural character of the Monterey Bay coastline. These areas are designated as Scenic and Natural Resource Recreation Areas. Only uses dependent on the resource shall be permitted. The State should acquire privately owned dune areas which are offered for sale.
2. Coastal estuary and wetland areas designated as Resource Conservation on the plan map are suitable for conditional development of recreational uses defined in the Scenic and Natural Resource Recreation Areas category of the plan. Use and development shall be consistent with the findings and recommendations of specific management plans to be prepared for the areas by the agencies that manage or operate them. Optimum carrying capacities should be determined in the plans and not exceeded. Management responsibility for recreational use of the Elkhorn Slough/Bennett Slough area shall be actively assumed by an agency or agencies with recreation management capabilities.
3. Upland areas shown on the plan map as Rural Residential are suitable locations for conditional development of recreational uses permitted under the at Scenic and Natural

Resource Recreation Areas category of the plan. This designation will not preclude other uses of the area such as agriculture or residential development. Upon further evaluation of soil conditions and resource constraints, some hill areas may be re-designated as Outdoor Recreation Areas.

4. A system of recreational hiking and equestrian trails should be developed in accordance with Figure 6.
5. Rivers and their immediate shorelines are designated Resource Conservation on the land use plan map and shall be kept in open space for passive, low-intensity recreation, for wildlife habitat, and to minimize potential flood hazard.
6. Overnight camping facilities should be located in areas protected from the wind and buffered from surrounding and potentially conflicting uses.
7. The Sandholdt Pier and the soon to be replaced Highway 1 Bridge over Elkhorn Slough should be considered for renovation as fish ing piers and docks.

Recreation Management

1. Recreation in environmentally sensitive areas such as dunes, wetlands, riverbanks, and areas with rare, endangered, or threatened plant or animal communities shall be limited to passive, low-intensity recreation use dependent on the resource and compatible with its long term protection.
2. Recreation management and facility development plans for all public recreational areas and facilities shall be adopted by the managing agency whose duties shall include minimizing damage to property and natural resources. New recreational facilities shall not be opened to public use until adequate management is assured.
3. Funding of recreational areas should seriously consider user fees in development, maintenance, and supervision of these areas.
4. Adequate supervision and maintenance of beach and dune recreation areas shall be provided as necessary to protect visitor safety and the natural resources of the area. Damaged dunes shall be restored, replanted with native vegetation, and closed to use during the period of recovery.

Recommended Actions

1. The State Department of Parks and Recreation should upgrade recreational facilities at Moss Landing State Beach. This would permit increased visitation and diversity of use. Improvements may include restrooms, firepits, fish cleaning facilities, increased parking space, bus stop and shelter, and camping areas. Improvements should not infringe upon dune or wetland areas. The area of land in private ownership between Zmudowski State Beach and Moss Landing State Beach should be acquired by the State and incorporated into an overall recreation management and development plan.
2. A dune restoration program should be initiated by the State Department of Parks and Recreation for the State beaches along the North County Coast.
3. Increased supervision of the North County beaches should be provided by the State Department of Parks and Recreation and the Monterey County Sheriff's Department. The potential for a resident ranger in North County should be investigated. If the Department of Parks and Recreation is unable to fulfill its management, options such as leasing property to the County Parks Department or other organizations capable of providing adequate maintenance, improvements, and supervision should be considered.
4. A management plan for the Salinas Wildlife Area should be developed by the State Department of Fish and Game and the U. S. Wildlife Service. The area should continue to be managed as a low use intensity recreational and educational facility. The area should be patrolled more often by the Department of Fish and Game. The dune area north of Marina to the mouth of the Salinas River should be acquired by the U. S. Fish and Wildlife Service or the State Department of Fish and Game and managed as a wildlife reserve and for low intensity recreation opportunities.
5. Recreation management plans should be coordinated with wetland management plans for Moro Cojo, Bennett, and Elkhorn Sloughs. The California Department of Fish and Game and the Moss Landing Harbor District should be lead agencies for the plans. Within the plans, the removal of obstructions to navigation of shallow draft boats on Moro Cojo Slough, and the development of a hiking trail on the abandoned railroad levee through Bennett Slough should be investigated.
6. A comprehensive management plan for Manzanita Park should be completed by the County Parks Department before the park is opened to public use. Trails should be constructed to minimize erosion. Sensitive habitat areas and maritime chaparral communities should be protected. Recreational uses conflicting with preservation of the natural resources of the area should be restricted.

7. The Long Valley area should be reinvestigated by the County Parks Department for acquisition or lease as a wildlife preserve and low intensity recreation area. A hiking trail connecting this area to the Elkhorn Slough Estuarine Sanctuary should be considered. A trailhead could be established at the intersection of San Miguel Canyon and Long Valley Roads.

D. Residential

1. Land divisions for residential purposes shall be approved at a density determined by evaluation of site and cumulative impact criteria set forth in this plan. These include geologic, flood, and fire hazard, slope, vegetation, environmentally sensitive habitat, water quality, water availability, erosion, septic tank suitability, adjacent land use compatibility, public service and facility, and where appropriate, coastal access and visual resource opportunities and constraints.
2. Medium and high density residential areas shall be located only where urban services; water, sewers, roads, transit, fire protection, etc. are available. A mix of residence types and price ranges should be made available through the development of these areas. These areas should be fully developed before new areas are designated for medium and high density development.
3. Low density residential areas should be located in rural areas where an essentially residential character exists. These areas should be developed and infilled to the extent that site and cumulative impact constraints allow before Rural Residential areas are designated for low density residential development. Housing densities and lot sizes shall be consistent with the ability of septic systems to dispose of waste without contamination of groundwater or the creation of hazards to public health on an individual site and cumulative basis.
4. A mix of agricultural and residential use is encouraged in Rural Residential areas. Residential subdivision and development in these areas shall be located according to site constraints. The most viable agricultural areas of the parcel should remain open for agricultural use.
5. Where public facilities or water supply necessary to support residential development are limited, residential growth should be phased to allow sufficient time for these essential elements to be provided.
6. An area of high density residential development is planned at Las Lomas between Hall and Sill roads in order to encourage the provision of low and moderate income housing consistent with the Las Lomas Development Incentive Zone of the Monterey County Housing Element. The area designated

for High Density Residential development contains approximately 44 acres and may, consistent with the availability of public services and other resource considerations, be developed at a gross density of 7 to 7.5 dwellings per acre, or a total of about 320 units. The Special Treatment Area designation is applied in order to encourage planned development that will ensure retention of the site's natural amenities, particularly its mature oaks and also to provide for community needs such as a meeting hall or recreation area, and convenience shopping.

Low and Moderate Income Housing

The County is required by State laws mandating the Housing Element of the General Plan, to provide programs to increase the availability of low and moderate income housing. The following policies which are based on the goals of the adopted County Housing Element, reflect those actions that will be most effective in the North County coastal zone.

1. The County shall protect existing affordable housing opportunities in the North County coastal area from loss due to deterioration, conversion, or any other reason. The County will:
 - a) Discourage demolitions, but, require replacement on a one by one basis of all demolished or converted units which were affordable to or occupied by low and moderate income persons.
 - b) Promote housing improvement and rehabilitation programs for low and moderate income persons in both owner-occupied and renter-occupied units.
 - c) Study relaxation of building code requirements and if appropriate adopt minimum building code regulations for the rehabilitation of older housing units.
 - d) Replacement affordable housing units shall be retained as low and moderate income units through deed restrictions or other enforceable mechanisms.
2. The County shall encourage the expansion of housing opportunities for low and moderate income households.
 - a) Re-evaluate ordinances and policies which impose constraints to low and moderate income housing opportunities.
 - b) Require employee housing as a condition of all permits related to additions to existing visitor facilities or the construction of new facilities. Such housing must be provided prior to or concurrent with the proposed development, and must be permanently linked to the visitor-serving use through appropriate binding

guarantees.

3. The County shall provide where feasible, affordable housing through the continuing good faith and the diligent efforts by the public sector. The County will:
 - a) Establish a fund, from in-lieu fees, sales of land, and transfer payments, for direct assistance to low and moderate income proposals.
 - b) Protect the rights of both tenants and landlords with regard to housing issues.
 - c) Provide means to expedite projects which demonstrate innovative ways to implement housing policy.
4. Consider adopting comprehensive guidelines for farm labor housing in Monterey County including the North County coastal zone as a separate entity. This should include an analysis of existing conditions, i.e., social, economic, cumulative impacts, public health concerns, environmental impacts, etc., and programs for alleviating these problems and establishing acceptable housing. Annual inspections should be required by Health and Building Departments of all units approved, by the Planning Commission and Building Departments, as farm labor housing.
5. Development of farmworker and non-farmworker cooperatives should be encouraged at appropriate locations and at site densities designated in the plan for residential use of an area.
6. The trailer and mobile home exclusion districts in the County Zoning Ordinance should be repealed to increase affordable housing opportunities and increase access to the Coastal Area for low and moderate income families.

E. Commercial and Visitor-Serving Facilities

1. New general commercial uses shall be provided only at locations designated on the land use plan map. Limited expansion or improvements to existing commercial uses shown on the plan map will be considered on an individual basis.
2. New or expanded general commercial facilities in the North County Coastal Zone and visitor-serving commercial facilities in Moss Landing shall provide adequate parking, either on or off site, and safe access, including necessary turning lanes, acceleration lanes, and signing. Wherever possible, access to commercial facilities from major roads and highways should be consolidated. Strip commercial development shall not be allowed.
3. Renewal of use permits for existing commercial uses shall require careful consideration of the impact of use on

surrounding land, and traffic safety and congestion.

4. Recreation and Visitor-Serving Commercial and General Commercial uses shall be developed in the Moss Landing Community Plan area in accordance with the following policies and guidelines and with Section 5.2.1.B.
 - Permit a total of up to 150 hotel/motel units based on available land and wastewater collection system capacity. These shall generally be provided by several smaller establishments not exceeding 30 units each.
 - Encourage the expansion and improvement of existing recreation and visitor-serving facilities.
 - Design and locate new commercial visitor-serving facilities to minimize traffic and natural resource impacts.
 - Encourage the development of low and moderate-cost commercial recreation and visitor-serving facilities in preference to high cost facilities.
 - Encourage mixed use commercial development that includes housing units.
 - Encourage development of commercial uses providing necessary service to coastal-dependent industries such as commercial fishing, aquaculture, and energy production, and commercial facilities providing goods and services related to the use of local recreational opportunities.

F. Industry

1. Lands designated for Heavy and Light industrial use in the North County Coastal Zone, shall be reserved for coastal dependent industry as defined in Sections 4.3.1. L and M., and in the glossary of this plan. New heavy or light Industrial manufacturing or energy related facilities shall be located only in areas designated for these uses in this plan.
2. Existing industrial uses outside the designated industrial areas, are non-conforming uses under the plan. Expansion of such uses shall not be permitted. The County's general policy is to encourage these uses to relocate to appropriate industrial areas. Remaining vacant parcels within the Dolan Industrial Park shall be reserved for coastal-dependent industries.

3. Development of new agricultural facilities of an industrial nature shall be located in areas designated for Light Industry, or as a conditional use in Rural Residential and Agricultural Conservation areas. In Agricultural Conservation or Rural Residential areas, such uses shall be permitted only in the portions of the property that do not contain viable prime or productive farm lands.
 4. A basic standard for all new or expanded industrial uses is the protection of North County's natural resources. Only those industries determined to be compatible with the limited availability of fresh water and the high air quality required by agriculture shall be allowed. New or expanded industrial facilities shall be sited to avoid impacts to agriculture or environmentally sensitive habitats.
 5. The Light Industrial Area north of the City of Marina is designated as a Special Treatment Area in order to encourage planned development of agricultural-related or coastal dependent industries. Development proposals for this area should emphasize protection of the site's vernal ponds and adjacent agricultural lands, and should be designed and landscaped to be aesthetically pleasing to travelers on Highway One.
- G. Other Uses
1. Schools and other educational facilities should be expanded to accommodate anticipated population increases in North County.
 2. Areas designated for intense industrial, commercial, and residential development should receive special project planning in order to facilitate efficient use of the land while minimizing adverse impacts.
 3. Public and quasi-public uses should be located in areas where they will be compatible with adjacent land uses and local traffic conditions.

5. MOSS LANDING COMMUNITY PLAN

5.1 BACKGROUND

The findings, policies and recommendations contained in this chapter are the result of a cooperative land use planning effort between the Monterey County Planning Department, the consulting firm of Jefferson Associates, various public agencies and members of the community. The key products of this effort have been: a technical memorandum on wastewater facilities, three technical background reports, and the Community Plan. The three background reports, completed in August, 1980, include: Harbor Development: Commercial and Recreational Facilities; Visual Resource and Special Communities; Energy and Industrial Expansion Alternatives.

An integral part of the community planning process was a program of public participation. This included, general public workshops and meetings, North County Citizens Advisory Committee (CAC) meetings, CAC Harbor and Industry Development Subcommittee meetings, and Technical Advisory Committee meetings on specialized topics. A particularly high degree of public involvement was achieved at several major public meetings held during the planning period. One of these meetings was devoted primarily to a mapping workshop in which attendants were asked to draw their own plans for the community. A total of 10 plans were mapped and no fewer than 275 comments were tabulated. A great number of the ideas and comments articulated at this workshop were used in developing the Community Plan for Moss Landing.

5.2 LAND USE, CIRCULATION, AND WASTE WATER TREATMENT

5.2.1 Land Use Proposals

The land use plan for the Moss Landing Community shown on Figure 2 illustrates the arrangement of land uses at the time when the community will be fully developed. The boundaries between land uses shown on the recommended plan are intended to be exact in most locations, particularly where land is developed now. In undeveloped or unsubdivided areas, boundaries are approximate.

A. Coastal Dependent Industry

The industries located in Moss Landing are generally dependent for their existence upon a location near the coastline, and as such are considered "coastal dependent". These industries include commercial fishing, aquaculture, energy facilities and manufacturing activities. Coastal dependent industries are given priority by the Coastal Act over other land uses on or near the coast. The intent of this plan is that these coastal

dependent industrial facilities shall be encouraged to expand within existing sites, and shall be allowed reasonable growth consistent with the protection of the area's natural resources. If impacts to sensitive natural habitats cannot be avoided by future expansion of these facilities, then impacts must be mitigated to the maximum extent feasible. Policies that support this basic objective are contained in Sections 5.5 and 5.7.

1. Light Industry

Commercial fishing industries include canneries and fish processing companies, boat storage and repair facilities, marine supply stores, and other related facilities (i.e. fueling stations, private launching ramps, used boat sales businesses) located on the Island. Consolidation and upgrading of some of these enterprises is currently planned, and should contribute to improving the efficiency and site economics of existing facilities. If such improvements are encouraged, Moss Landing should be able to maintain a reasonably strong commercial fishing base on the Island. The plan also recognizes an existing need for some limited commercial development of uses such as a fishermen's dormitory, cafe, etc., and flexibility in the plan is envisioned to allow these uses. Long-term economic uncertainties about commercial fishing make rapid future growth of the industry seem unlikely. Because of this and because most facility modernization can be accommodated on-site, the land designated for Light Industrial use north of the Moss Landing Marine Lab is considered adequate to meet the needs of the commercial fishing industry until the harbor is expanded. At such time, there may be need for additional facilities to support the commercial fishing industry. An area of land between the extension of Sandholdt Road and the channel is shown on the plan map as "Light Industry" to provide for support facilities in the event that the Old Salinas River Channel is ultimately approved as the site for expansion of the harbor. The development of industrial uses in this area shall not take place until the harbor is extended into the Old Salinas River Channel. This extension must be made consistent with the provisions and requirements of section 5.3.

Currently, several companies engaged in commercial aquaculture base their operations on the Island and use the Elkhorn Slough as a propagation area. These companies have located their buildings, which house offices, laboratories, indoor growing tanks and other processing equipment, on the Island. The plan encourages these uses by including them among the uses appropriate in the "Light Industry" designation applied to the Island.

Due to the continued erosion of the shoreline of the "Island" a comprehensive shoreline erosion plan for the area should be developed to protect existing and future development. This plan should be based on engineering

studies that address the stabilization of the entire length of the Moss Landing spit shoreline from the Moss Landing Marine Lab to the South Jetty. It should involve the cooperation of property owners, the Moss Landing Harbor District, the County, the State, and other governmental bodies, in the planning, financing, and construction phases.

2. Heavy Industry

The only existing energy production facility in the Moss Landing area is the PG&E thermal electric plant located on the south bank of Elkhorn Slough and across Highway One from Moss Landing Harbor. This plant has two cooling water intake structures in the east branch of the harbor (outlet of Moro Cojo Slough), with thermal discharges into Elkhorn Slough north of the plant, and the ocean west of the plant and beyond Moss Landing Island.

There are seven steam turbine units with a total capacity of about 2,113 Megawatts (MWe) at the PG&E Moss Landing Power Plant. Units 1-5 are fueled by either natural gas, or by fuel oil which is offloaded from tankers three-fourths of a mile offshore, and employ six boilers for powering. Units 6 and 7, activated in 1968, have a gross capacity of 1,500 MWe and are similarly fueled and equipped.

An assessment of options for upgrading and expanding the PG&E power plant presented in the Background Report on Energy and Industrial Expansion Alternatives indicated that future plans for modernization of the plant can be accommodated on-site. Future use of coal or nuclear fuel is not likely and not recommended in the plan. Minor modifications of on-site parking facilities and circulation systems is a future possibility. Utilization of an additional transmission line easement is possible in the future, but should be discouraged in favor of using the existing transmission corridor due to undesirable impacts to agricultural operations and to the scenic beauty of the area. Recommended policies for upgrading energy facilities and minor on-site land use and circulation changes consistent with the preservation of adjacent wetlands habitats and sensitive natural resources are presented in Section 5.7.

The major existing manufacturing industry is Kaiser Refractories, located south of PG&E off Dolan Road and Highway One. The Moss Landing plants produce magnesia and refractory brick, using as raw material sea water from the ocean and dolomite from the Natividad Quarry near Salinas, thirteen miles away. The refractory brick production is a coastal-related industry while magnesia production is coastal-dependent.

As with the PG&E facility, major changes in the next twenty years at Kaiser can be accommodated on-site. A primary option available to Kaiser is the replacement of the present gas and fuel oil as furnace fuels by refinery coke. In addition, increased pressurized filtering of products before firing would remove further water and decrease the fuel requirement per pound of finished product. On-site circulation system and land use changes are planned, and primary access from Highway One will be closed and shifted to Dolan Road. Major changes in primary access to PG&E and Kaiser shall be approved only upon the condition that comprehensive landscaping programs are completed around the perimeter of all properties fronting on public roads. Policy recommendations for the modernization proposals are presented in Section 5.7.

B. Commercial

Two types of commercial land uses are designated on the plan map. These are Recreation and Visitor-Serving Commercial and General Commercial uses. The Coastal Act gives priority to visitor-serving commercial uses, although this priority is lower than that afforded coastal dependent industry. In addition to the following discussion, section 4.3.6.E.4 of the plan should be consulted.

1. Recreation and Visitor-Serving Commercial

This term is used to describe businesses that serve primarily visitors rather than residents. Although an absolute distinction between visitor-serving and neighborhood type commercial uses is difficult to make, visitor-serving uses would include businesses such as restaurants, motels, service stations and antique shops.

The plan designates four areas strictly for visitor-serving commercial uses. In the north harbor, visitor-serving commercial uses are shown north of the Elkhorn Yacht Club and harbor office. Appropriate uses for this area could include restaurants and/or motels, with adequate on-site parking, controlled access from Highway One, and appropriate design controls to ensure that public views of the north harbor are not obstructed. The plan permits up to 150 hotel/motel units based on available land and wastewater collection system capacity. These shall generally be provided by several smaller establishments not exceeding 30 units each. The area from what is now known as Skipper's Seafood and the Harbor Inn north to Little Baja is also designated for visitor-serving commercial uses, with controlled access from Highway One and a frontage road.

In the South Harbor area, three visitor-serving commercial areas are shown. The currently undeveloped area south of the antique shops on the east side of Moss Landing Road is designated visitor-serving commercial. The area at the

corner of Potrero Road and Moss Landing Road, which includes a restaurant, antique shop, liquor store and fishermen's supply store, and the property fronting on Highway One between Moss Landing Road and Moro Cojo Slough are also designated for visitor-serving commercial use.

2. General Commercial

General Commercial uses are shown on the plan map on both sides of Moss Landing Road. This designation provides the opportunity to combine commercial and residential uses. Antique shops, the Moss Landing Post Office and historical buildings such as the Pacific Coast Steamship Company, lend a special character to this area and should be preserved and upgraded. Opportunities for providing a motel, a small neighborhood grocery store and low-cost rental housing units exist on undeveloped or underdeveloped parcels in this area. Appropriate design and setback standards should be applied as a means of providing relief from "strip" development that can be an aesthetic nuisance to the community. Design standard suggestions are presented in Section 5.6.

C. Residential

Very little residential development exists in Moss Landing. Although a significant market exists for lower priced rental units, available locations without environmental or topographical constraints are limited. Low density and medium density housing are the two residential categories shown on the plan map.

1. Low Density (0.1 to 0.4 units per gross acre)

Low density housing development is shown for the undeveloped areas near the end of Potrero Road and on the hillside overlooking the Old Salinas River Channel. Such development should be clustered to maximize preservation of trees and open areas and minimize negative effects of heavy grading.

2. Medium Density (1 to 4 units per gross acre)

Medium density housing is shown for the developed residential area on Potrero Road, and for an area on Moss Landing Road north of the cemetery.

3. High Density (5 to 15 units per gross acre)

No high density residential development is shown on the plan. However, the general commercial use areas shown on Moss Landing Road provide opportunities to combine commercial uses and high density residential development.

D. Resource Conservation

Protection of sensitive resources, plant communities and animal habitats is emphasized. This land use is applied to wetlands and dunes and the Old Salinas River under the Wetlands and Coastal Strnad category. Only very low intensity uses and supporting facilities compatible with protection of the resource are allowed. Uses would include low-intensity recreation, education and research. In designated wetland areas, aquaculture is permitted.

E. Agriculture

Preservation of agricultural lands is a major priority of the Coastal Act and is ensured in this plan by designating all lands in agricultural production, or suitable for such use, as "Agricultural Conservation" and by setting aside considerable other lands for aquacultural use.

1. Agricultural Conservation

Agricultural Conservation areas designated on the map are lands north of Bennett Slough and areas between Elkhorn Slough and the PG&E property. These areas should be provided maximum protection against development to maintain consistency with the agricultural policies of Section 2.6.

2. Aquaculture

Aquaculture, defined in the California Aquaculture Development Act as, "...The culture and husbandry of aquatic organisms, including but not limited to, fish, shellfish, mollusks, crustaceans, kelp, and algae" is an agricultural industry that is growing rapidly in many parts of the world.

Aquaculture is shown as an appropriate use for certain areas of Elkhorn Slough. Aquaculture facilities in these areas are limited to non-structural development such as ponds or basins, piers, walkways, or minor storage facilities for tools. Aquaculture processing buildings are to be located in Light Industrial areas. Reasonable growth of aquaculture operations with appropriate mitigation to prevent disturbance of marsh and Clapper Rail habitat is compatible with the basic Resource Conservation designation of this area.

F. Recreation

1. Scenic and Natural Resource Recreation

Low-intensity recreational and educational uses that are compatible with the natural resources of the area and require a minimum level of development, accommodate basic user needs, and necessitate minimal alteration of the

natural environment are appropriate. Uses may include general beach use, hiking, fishing, picnicking, nature studies and horseback riding. The only facilities contemplated are improved parking and restrooms at Moss Landing and Salinas River State Beach, and at fish cleaning facilities at Moss Landing State Beach.

2. Outdoor Recreation

Moderate-intensity recreational use with accompanying facilities compatible with the recreational and natural resources of the site are appropriate. In addition to the uses permitted in the Scenic and Natural Resource Recreation category, facilities may include tent and recreation vehicle campgrounds, improved restrooms, and fish cleaning facilities.

G. Special Treatment

The "Special Treatment" designation is intended to facilitate a comprehensive planned approach towards developing specifically designated properties. Particular attention is to be given towards siting and planning development to be compatible with existing resources and adjacent land uses.

The property on the north side of Potrero Road bordering the east bank of the Old Salinas River is designated for Outdoor Recreation Special Treatment. The primary land use for this property is Outdoor Recreation with an emphasis on a recreation vehicle park. A secondary, alternative use for this property is medium-density housing. An open space buffer strip not to exceed 20' in width shall be established on the property along the north side of Potrero Road to protect adjacent agricultural operations. When combined with the County road right-of-way and the agricultural service road this will result in a total buffer width of 110'.

The "Special Treatment" designation is also used to indicate the area of the Old Salinas River Channel proposed for development for harbor purposes and adjacent land proposed for Light Industrial uses and Harbor Facilities. This "Special Treatment" area is one of four locations that will be considered as a potential site for harbor expansion. Prior to any development of the harbor in the Old Salinas River Channel certain interim uses may be permitted as described in H.4. below.

H. Public/Quasi-Public

Three public/quasi public uses are shown. These include educational/scientific, harbor facility and cemetery designations.

1. Education/Scientific

Two facilities given this designation are the Moss Landing Marine Lab and the school district office building on Moss Landing Road. Future redesign and expansion of Moss Landing Marine Labs shall not be permitted to encroach upon sensitive dune habitats south of the existing site.

2. Cemetery

The Moss Landing Cemetery is shown on the plan map on Moss Landing Road.

3. Harbor Facilities

This designation applies to the Harbor District office area, land south of the Sandholdt Bridge, and land in the North Harbor proposed for harbor support facilities. Facilities in the South Harbor adjacent to the new berths would include a parking lot, restrooms and staging areas. If enough space exists, a harbor maintenance facility would be developed in this area. Unused lands near the Harbor District office would be used for additional dry storage, possible overnight parking, and the harbor maintenance facility if space constraints prohibit its development in the harbor support area south of the bridge. Public facilities in the North Harbor would include a boat launching ramp, additional dry storage areas, and restroom facilities for non-yacht club members. Policies pertaining to harbor support facilities are contained in Section 5.3.

4. Plan Alternatives for South Harbor Area

It should be kept in mind that the future expansion of Moss Landing Harbor into the Old Salinas River Channel discussed in Section 5.3 is an important factor in determining the kinds of land uses that would be appropriate adjacent to the channel. Accordingly, properties on the west bank of the channel have been designated for Light Industrial use to support the harbor, and Harbor District property along the east side of the channel has been designated for parking and restrooms. The replacement of Sandholdt Bridge with a new crossing is also based upon future expansion of the Harbor into the Old Salinas River Channel.

If ultimately the Old Salinas River Channel is not used for harbor expansion then changes in the proposed circulation system and the land use plan will be needed. The new crossing over Old Salinas River Channel shown on Figure 2, would not be necessary, and would not be constructed. The existing circulation system that provides access to the Island via Sandholdt Bridge would be retained unless Sandholdt Bridge is too expensive to repair or reconstruct. In this case an alternative access route to the Island would need to be developed.

Land on the west bank of the channel, south of the Marine Lab and designated Light Industrial in order to support harbor expansion into the channel, would not be appropriate for Light Industrial use and would need to be changed to other designations. A combination of Resource Conservation and Scenic and Natural Resource Recreation may be most appropriate uses for the area and would be consistent with similar properties adjacent to the south. These are also considered appropriate interim uses for private beach properties until the South Harbor is expanded south of Sandholdt Bridge.

Any change in the Plan, however, concerning either harbor expansion, related land uses, or the circulation system can only be made through public hearings before the Monterey County Planning Commission and Board of Supervisors and with approval of the California Coastal Commission. The community, property owners, and affected agencies will participate in the process of revising the plan if this becomes necessary.

5.2.2 Circulation

The primary transportation emphasis of the Coastal Act is to preserve highway capacity for coastal access and coastal dependent land uses. In this context the plan shows improvements to Highway One and recommends a reduction in the number access points from the highway to minimize hazardous and congested conditions. Needed parking facilities are also proposed. Pedestrian access is discussed in item E. below and in Section 5.4.

A. Highway One

Highway One should be improved as a four lane divided scenic highway. Access points to Highway One shall be consolidated and limited to Jetty Road, Dolan Road, Moss Landing Road and Potrero Road.

B. County Roads

The County roads shown on the land use plan map are Jetty Road, Moss Landing, Dolan Road and Potrero Road. These are shown as two-lane roadways with the access improvements to Highway One discussed above. In order to minimize the access points to Highway One in the North Harbor area, a frontage road with a single access point should be developed to serve the yacht club and present and future commercial uses.

C. Sandholdt Bridge

As part of the long-term expansion plan for the harbor, Sandholdt Road would be extended about 1,000 feet south of the Sandholt Bridge on the west side of the Old Salinas River Channel by purchase of private property. The bridge would be

removed. A new embankment crossing of the river would be constructed with access provided from Moss Landing Road, and from Sandholdt Road to the north just west of the existing bridge. These are shown as proposed circulation system improvements on Figure 2.

Should the planned harbor expansion into the Old Salinas River not be implemented, access to the spit will remain dependent upon the existing one-lane Sandholdt Bridge, the maintenance of which is becoming an increasingly expensive problem. Replacement of the bridge would be even more expensive barring assistance from some federal program or some other outside source. The plan recognizes the economic problems of retaining a bridge at the existing location and further recognizes that such pressures on public funding may eventually force abandonment of the bridge crossing. New access would then need to be provided to the Island, consistent with other LCP policies.

D. Parking Facilities

Locations for improved parking facilities are shown on Figure 4 for the North Harbor area. It is recommended that the improved parking area to be located between the Sand dunes and Bennett Slough at the curve of Jetty Road be limited to not more than 100 spaces. Consistent with access policies in Chapter 6, parking improvements shall be made only upon completion of more detailed management plans for the area by the State Department of Parks and Recreation. Care should be taken during development of parking at the Jetty Road curve, to avoid filling the Bennett Slough wetlands or disrupting wildlife and shorebird habitat.

The potential for parking improvements should be studied at "the opening" a popular parking area mid-way along Jetty Road where there are no longer any dunes remaining and where there is easy beach access.

Up to 150 improved parking space should be provided at the end of Jetty Road where there is ample area for a paved turnaround, or loop to assist circulation. When these improvements have been made it will be desirable to limit parking along the shoulder of the road.

Parking improvements are proposed for the South Harbor area. The existing Cal Trans Park and Ride facility is shown on the west side of Highway One near Dolan Road. Future parking is also shown at the South West corner of Moss Landing Road North and Highway One, and near the South intersection of Moss Landing Road and Highway One. General upgrading of the existing parking area at Salinas River State Beach is also needed.

E. Pedestrian Access

Access improvements to and along the Shoreline within the Moss Landing Community Plan area are described in Chapter 6 and are

shown on Figure 6. Figure 3 and 4 provide additional illustration of existing and proposed access opportunities. The small scale of the central community area generally encourages walking, although the lack of sidewalks on Moss Landing Road or Sandholdt Road require caution on the part of pedestrians and drivers. It will be desirable to require sidewalks to be installed on Moss Landing Road as part of future development, because this will continue to be the primary focal point of visitor oriented commercial development. If in the future Sandholdt Bridge is replaced a pedestrian walkway should be provided separate from the roadway.

F. Public Transit

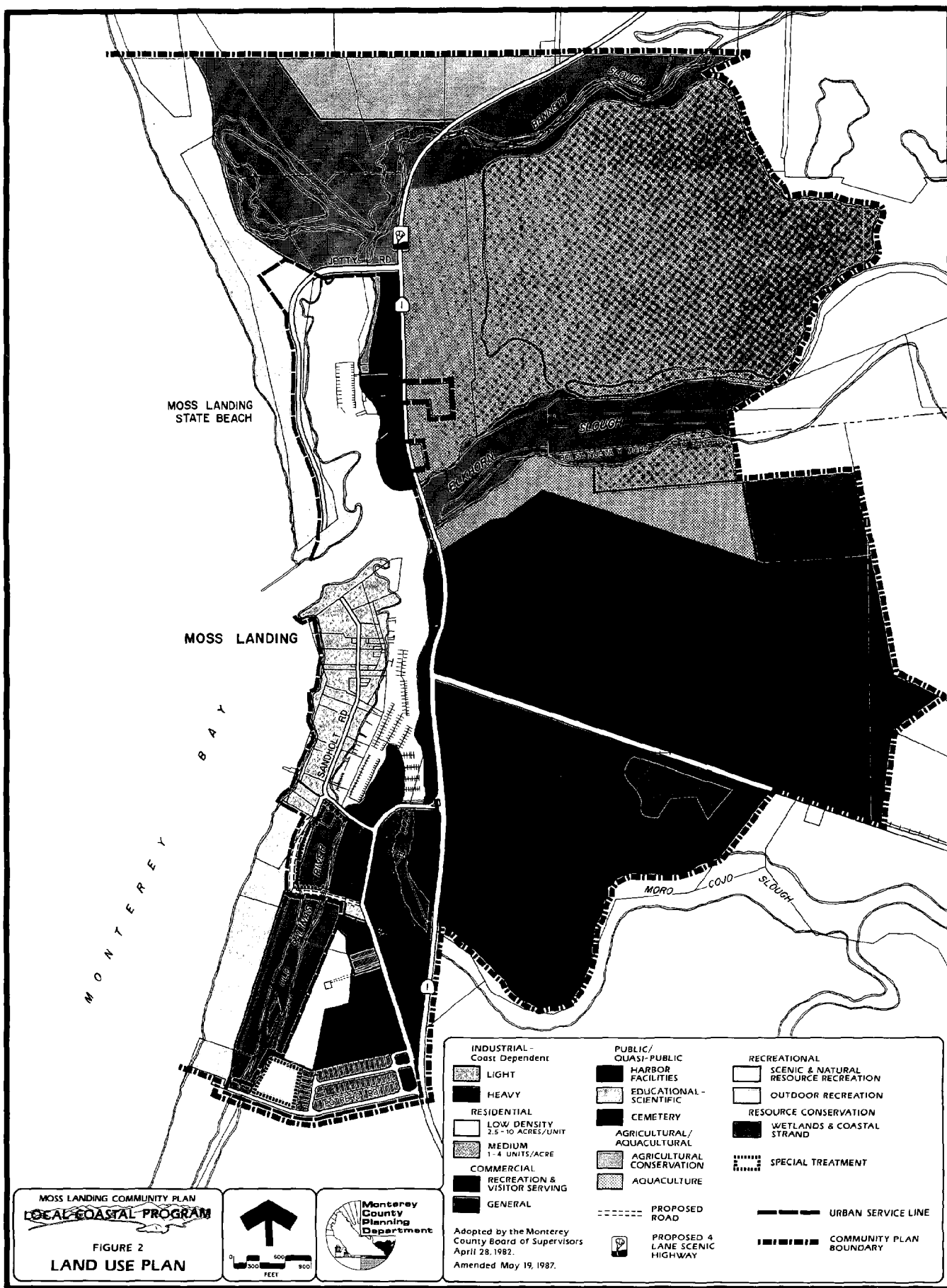
Public transit stops are shown on the west side of Highway One near Dolan Road, and at the Jetty Road/Highway One and Potrero Road/Highway One intersections. Public transit is provided in the North County by Greyhound and Monterey-Salinas Transit, and a new route is planned between Watsonville and Salinas via Highway One. Commercial, recreational and industrial facilities are not currently served in Moss Landing. Designation of new stops and improved scheduling would provide better service to the beaches and to the island.

5.2.3 Wastewater Treatment

The California Coastal Act of 1976 sets criteria for expansion of urban areas and allocations of the capacities of public works facilities such as wastewater collection and treatment facilities.

The Moss Landing County Sanitation District was formed in response to the ban on installation of additional septic systems ordered by Monterey County and construction of wastewater collection lines and a main transport line from Moss Landing to Castroville are planned. The wastewater collection project will collect effluent from the residences and commercial establishments in Moss Landing and transport it to the Castroville wastewater treatment plant or the proposed regional plant in Marina. Collection service will include the Moss Landing Mobile Manor and the residential area along Struve Road in addition to the central Moss Landing Community. The industrial facilities of Kaiser and PG&E are not included in the service area. These facilities have adequate wastewater treatment and disposal systems. While all domestic wastewater would be collected in Moss Landing, aquaculture and fish processing industries would probably continue to discharge their processing wastewater in other manners.

The design capacity of the Moss Landing wastewater collection system is about 105,000 GPD average daily flow. The current amount of wastewater generated in Moss Landing that would be collected is estimated to be about 66,500 GPD. This leaves a potential remaining capacity of 38,500 GPD to serve all new uses. However, no capacity is presently available at the Castroville treatment facility to treat effluent from Moss



Landing. A regional system is not yet functioning. Until the Castroville facility is expanded or the regional system begins operation, the wastewater collection system will not be able to begin operation. Further, the planned expansion of the Castroville treatment plant is sufficient to serve existing uses only. Additional treatment capacity for Moss Landing will not be available until the Castroville plant is expanded beyond proposed levels, or a regional facility with higher capacity is placed in operation.

Finally, the California Coastal Commission, in approving permits for the collection system, set conditions allocating capacity in the collection line based on the priorities of the Coastal Act. These priorities for wastewater service are as follows:

- a) Existing uses within the service area.
- b) Moss Landing State Beach, Salinas River State Beach.
- c) New or expanded coastal-dependent industries within the service area.
- d) New or expanded essential public services, basic industries or recreational uses excluding the Struve Road area, or minimum other uses on vacant parcels in the service area.
- e) All other uses.

5.3 COMMERCIAL FISHING & RECREATIONAL BOATING FACILITIES

The intent of the Coastal Act with regard to commercial fishing and recreational boating is that increased use of coastal waters for these purposes shall be encouraged. As a coastal dependent industry, commercial fishing facilities are given the highest priority for development on or near the coastline. Similarly, development of land-based facilities to support recreational boating is favored over non-water dependent land uses near the coastline. However, Section 30233 of The Coastal Act is specific concerning conditions under which the development or expansion of harbors can occur when it states: "The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes, shall be permitted . . . where there is no feasible less environmentally damaging alternative, and where feasible, mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities; (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps; (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game . . . for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided,

however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored." Thus, the legislative intent is to allow reasonable expansion of commercial fishing and recreational boating facilities consistent with maximum preservation of sensitive natural resource areas and wetland habitats.

For the entire Moss Landing harbor, demand for commercial and recreational boat berths and related facilities far exceeds the available supply in the existing harbor area. Even maximum expansion of the South Harbor would not entirely satisfy this demand. Efforts to make optimal year round use of available berthing and support facilities particularly in the South Harbor are constrained by peaks created by the cyclical nature of the fishing industry upon which the planning process can have little effect.

Nonetheless, some of the physical constraints on maximizing the use of existing facilities can be addressed by land use planning and harbor management measures. In the South Harbor for example, the ability to intensify boat repair and fish processing activities will be considerably improved when bulk-heading work along the western shoreline of the south harbor is completed. Similarly, optimal processing of fish catches is limited by the lack of adequate unloading and work docks and the capacity of some fish handling facilities. When dredging work is completed, fish processing capabilities of certain docks will increase. The limited supply of dry storage areas and under-utilization of other areas that could be used for dry storage is a further constraint on efficient use of existing facilities.

Another problem constraining efficient use of available resources involves utilization of boat berthing space and slips by inactive or unseaworthy vessels. This limits potential for future use of space by vessels on the waiting list for berths in the South Harbor.

Other problems in the South Harbor include:

- Adequacy of boat launching ramps or hoists for sport fishing and recreational boats.
- Adequacy of boat fueling facilities.
- Compatibility of commercial fishing industry support requirements with the increasing demand for sport fishing and recreational boating berths and facilities.
- Adequacy of parking facilities, traffic conflicts and congestion on "the Island".
- The one lane Sandholdt Bridge limits efficient access to and from the island.

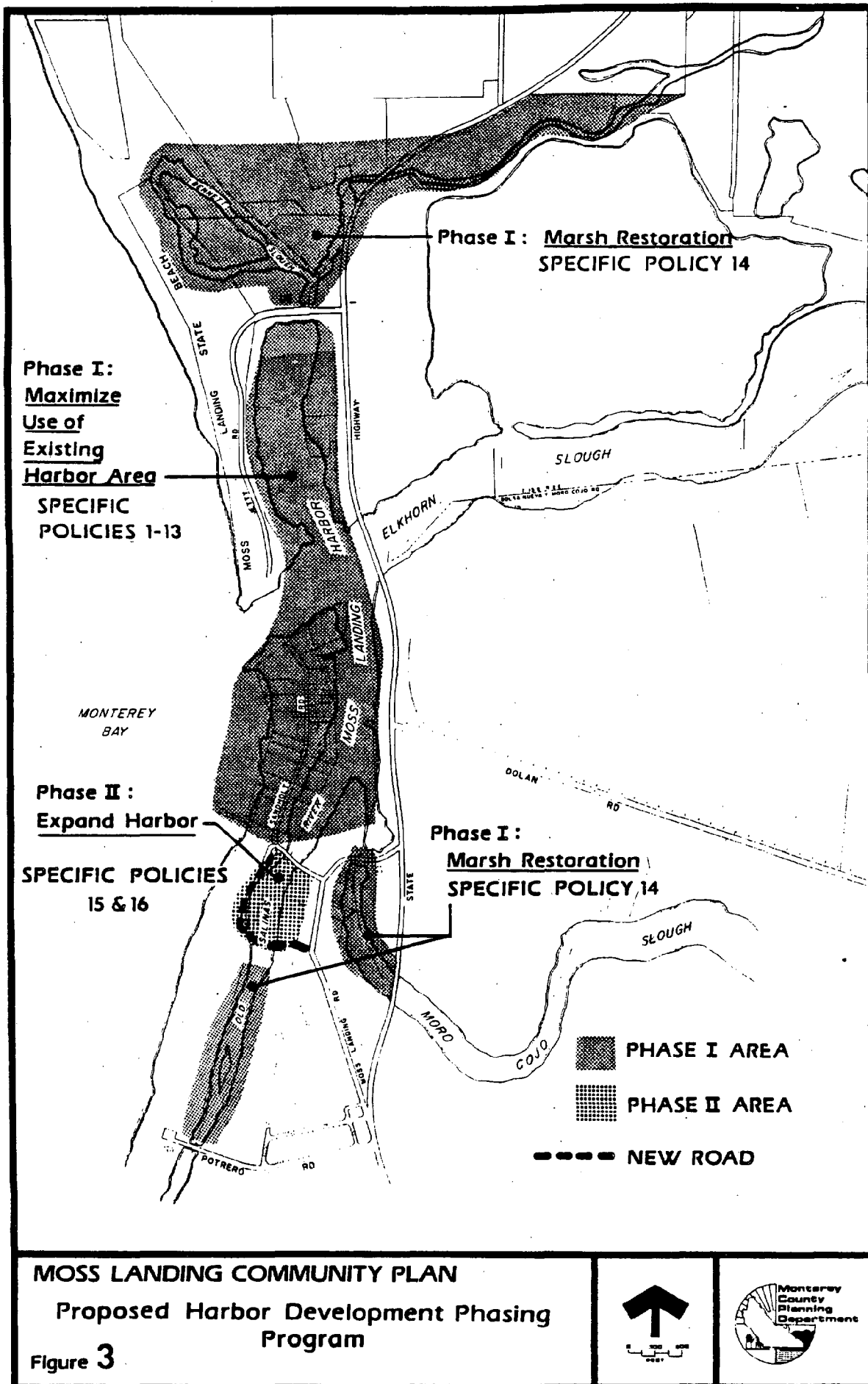
In addition to these factors, Highway One capacity constraints and hazardous traffic conditions, as well as limited future sewer capacity, will have an effect on the degree to which commercial fishing support facilities and industries in the South Harbor can expand. It is expected that upgrading of existing uses can be accommodated by the proposed sewer pipeline facilities for Moss Landing. The proposed sewer facilities may not be able to support development of a new fish processing company or some other intensive water user. Private financing for sewer expansion may be possible.

The most significant opportunity for increasing the number of commercial boat berths is the eventual expansion of the South Harbor. The Moss Landing Harbor District, with assistance from the U.S. Army Corps of Engineers has studied a variety of alternatives for harbor expansion and has concluded the only financially feasible option is to extend the existing South Harbor approximately 1000 feet south of the Sandholdt Bridge in the Old Salinas River Channel. This will require removal of Sandholdt Bridge and the construction of a new crossing over the channel at the south end of the extended harbor, as shown on Figure 2. Extensive dredging will also be required in the wetlands of the Old Salinas River Channel. Before this work can be undertaken, the Coastal Act requires that the State Department of Fish and Game make the finding that the area is a degraded wetland. Considerable wetland restoration will be required to serve as mitigation for the use of the Old Salinas River Channel. The resolution of the environmental issues involved and successful expansion of the harbor will necessitate a cooperative effort by the Moss Landing Harbor District, the Department of Fish and Game, the U.S. Fish and Wildlife Service, the Corps of Engineers, and the California Coastal Commission.

Constraints in the North Harbor include a lack of restroom facilities for non-yacht club members; lack of a boat ramp and/or hoist for use by recreational boaters without berths; limited dry storage and parking areas; and uses of property for purposes that may conflict with recreational and visitor-serving uses dependent on locations adjacent to the harbor. Bank erosion adjacent to the North Harbormaster Office, has prevented maximum utilization of this area for harbor-related purposes. Expansion is limited ultimately by basin dimensions. However, when retaining walls are developed and dredging is completed along the shoreline, additional slips or other harbor support uses may be possible.

5.3.1 Key Policy

The County encourages the maximum development of commercial fishing and recreational boating facilities at Moss Landing; consistent with the conservation of the area's wetlands, dunes and other natural resources.



5.3.2 General Policies

1. Commercial fishing facilities shall be protected and, where feasible, upgraded. Commercial fishing shall have priority for berthing space in the South Harbor, and recreational boating facilities shall not interfere with the needs of the commercial fishing industry.
2. Optimum use of the existing harbor area and expansion of the harbor should be compatible with conservation of the most sensitive and viable wetlands.
3. Due to limited capacity of Highway One and Sandholdt Road, priority should be given on the island to expansion of commercial fishing industries and facilities that generate low volumes of traffic. Some flexibility should be maintained for other development on the island that directly serves people engaged in those above industries and would not be suitably located in other areas of Moss Landing.
4. Use of existing land-based facilities that support commercial boating should not jeopardize the protection of public access to the shoreline.
5. Use of existing piers for access and recreational purposes should be encouraged when compatible with commercial fishing uses.

5.3.3 Specific Policies

The specific policies that follow set forth a two phase harbor improvement program that stresses maximizing the use of existing resources and restoring wetlands habitats before expansion occurs. Figure 3 illustrates the location of improvement measures discussed in the following policies.

Harbor Development - Phase 1

1. Encourage the conversion of underutilized or unused parcels on the island to land uses that are supportive of the commercial fishing industry and aquaculture.
2. Legal remedies should be investigated to prevent berthing of unseaworthy boats in the harbor and abandonment of boats in dry storage areas.
3. Bulkheading to prevent erosion and to maximize use of available shoreline should be provided along the west bank of the South Harbor.
4. The capacity of dry dock storage areas should be increased when needed and new dry storage areas should be developed. Measures should be taken to ensure that grading and surfacing work performed to provide additional capacity will not adversely affect water quality in the harbor.

5. Provision of an additional boat fueling facility should be considered.
6. The Sandholdt Pier should be considered for renovation as a fishing pier.
7. An additional boat launching ramp or hoist should be provided. A possible location would be in the North Harbor just south of the Elkhorn Yacht Club.
8. Develop a retaining wall or bulkhead along the eastern bank of the North Harbor adjacent to the Harbor offices as a means of preventing further erosion and improving berthing capacity.
9. On-site parking facilities shall be provided by private developers to satisfy demand generated by upgrading land uses on the island. Development of a public facility parking should be considered for a location near the north-west end of the island.
10. Methods to improve tidal flow and sediment transport from the North Harbor as a means of improving capacity of the North Harbor to accommodate additional berthing facilities and minimize the need for dredging should be studied. One possible method would be expansion of the existing culvert under Jetty Road.
11. Priority shall be given to developing recreation and visitor-serving commercial uses in the North Harbor area and improving public recreational boating facilities.
12. Upgrading and development of recreational boating support facilities should not jeopardize conservation of sensitive mudflat habitats in the North Harbor.
13. Additional restroom facilities should be provided in the North Harbor area.
14. A comprehensive wetland restoration program shall be undertaken as mitigation for the expansion of the harbor area (phase 2) as required by Sections 30233 and 30411 of the Coastal Act. Designation of the wetland areas to be restored and the extent of restoration necessary, has not been determined by the affected agencies at the time of the certification of this plan. However, Bennett Slough, Moro Cojo Slough, and Old Salinas River are potential restoration areas. The State Department of Fish and Game, U. S. Fish and Wildlife Service, the Coastal Conservancy and the U. S. Army Corps of Engineers should be consulted and a habitat evaluation conducted, if necessary, to determine the measures required to implement this program. Mitigation measures might include such things as a new tide gate to control tidal flushing under Moss Landing Road, upstream Moro Cojo Slough flood control measures and

widening of the Bennett Slough culvert. Completion of the wetland restoration program must be attained before harbor expansion in the Old Salinas River is allowed. Former wetlands that have been diked off from tidal influence but not filled should generally receive priority for restoration over diked and filled wetlands.

Harbor Development - Phase 2

15. After optimal use of existing facilities is made and the wetland restoration program is completed, expansion of the Harbor using the feasible least environmentally damaging alternative should be encouraged. Environmental impacts of harbor expansion must be mitigated to the maximum possible extent. All feasible road construction measures should be investigated to minimize damage to the sand dune habitat. Prior to extension of Sandholdt Road, a dune restoration program should be developed in cooperation with appropriate agencies and property owners. This program should undertake the restoration of degraded dunes adjacent to the extended road by replanting with native vegetation and the installation of fences or other means of controlling public access between the road and the dunes.
16. Additional land-based harbor support facilities should be provided following any expansion of the harbor. Figure 2 designates the Harbor District property on the east side of the Old Salinas River Channel for the development of harbor support facilities that will include parking and restrooms. On the west bank of the channel Light Industrial development is proposed between Sandholdt Road and the bank.

5.4 RECREATION AND PUBLIC ACCESS

A major reason for the passage of the Coastal Initiative (Proposition 20) in 1972 was to ensure preservation of access to the coast and protection of coastal recreation resources. One of the principal goals of the Coastal Act of 1976 is to "maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners".

At Moss Landing State Beach, problems with sand blowouts, littering, fires in the dunes, crowded parking conditions, congestion along Jetty Road, and illegal camping, limit the aesthetic appreciation and quality of the recreational experience. Uncontrolled access to fragile sand dunes are resulting in trampling of dune vegetation and severe damage to the dunes themselves. Similar problems exist at Salinas River State Beach and the sand dunes south of the Marine Labs.

Overall, the lack of adequate management and public facilities at the two state beaches is a pressing problem in urgent need of correction. Improved parking facilities and restrooms are needed at both beaches. Other facilities needed at Moss Landing State Beach include fish cleaning tables, fire pits and bicycle racks. Finally, the lack of adequate public transit service to the two state beaches limits the degree to which either facility can be used and appreciated by those dependent upon public transit services.

Opportunities for public access to the Island Beach are limited by inadequate parking and capacity constraints of Sandholdt Road and Bridge, as well as by the developed character of this area. Other areas where opportunities for improved public access and low intensity recreational use are Bennett and Elkhorn Sloughs. The Moro Cojo Slough, by virtue of its proximity to Highway One, represents a potential recreational opportunity that could be appreciated by the public in addition to the areas above.

5.4.1 Key Policy

The Moss Landing Community contains a variety of sandy beaches, dunes, estuaries and wetland habitats which offer diverse recreational opportunities. In the spirit of the Coastal Act, public access to these areas shall be provided. However, conservation of the sensitive natural resources of the coastline is an even higher priority. It is the County's policy to encourage an optimal level of development of recreation and public access opportunities consistent with the conservation of sensitive natural resources of Moss Landing.

5.4.2 General Policy

General policies on shoreline access and development of recreation and visitor-serving facilities contained in other chapters of this plan are incorporated by reference in the Moss Landing Community Plan. These policies emphasize permanent protection of major access points and property management by appropriate public agencies. New access and recreation areas should be guided by detailed management plans, and the rights of residents and property owners should not be jeopardized by irresponsible public access. Low and moderate cost recreation and visitor-serving facilities are preferred to higher cost facilities.

5.4.3 Specific Policies

Specific public access and recreation policies that follow are presented according to a priority system that emphasizes improving existing facilities before new access and recreation opportunities are opened. These priorities are illustrated on Figure 4.

Priority 1

1. First priority should be given to improving recreational facilities and reversing the degradation of sand dune habitats at Moss Landing State Beach. To accomplish this objective, a management program should be developed that includes the provision of restrooms, firepits, fish cleaning facilities and improved parking areas with controlled pedestrian walkways to and over the dunes. Protective fencing and replanting of the dunes with native vegetation should be instituted. This will be accomplished by the California Department of Parks and Recreation generally as illustrated in Figure 4, and as further discussed in Section 4.3.6 C and Chapter 6 of this plan.
2. A management and restoration plan similar to that for Moss Landing State Beach, should be developed for Salinas River State Beach. The parking area at the end of Potrero Road should be improved to accommodate increased access to the beach.
3. Increased supervision of Moss Landing and Salinas River State Beaches should be provided by the State Department of Parks and Recreation and the Monterey County Sheriff's Department.
4. Educational displays and signs alerting visitors to the fragile nature of the dune environment and directing them to controlled accessways should be posted at major access areas at the two state beaches.
5. Improved bus scheduling to allow more frequent transit service to the state beaches and commercial center should be provided.

Priority 2

6. Consistent with the General Policy, the second priority for provision and improvement of public accessways should include Bennett Slough, Elkhorn Slough, Moro Cojo Slough, the Island beach, and the sand dunes south of the Moss Landing Marine Labs.
7. Controlled public access to Moro Cojo Slough and Bennett Slough should be provided after the wetlands restoration programs for these areas have been successfully implemented. Accessways should not infringe upon sensitive natural habitats. Provision of boardwalks constructed of permeable materials should be favored over foot trails where the potential for damage to wetlands habitats exists. Access to Moro Cojo Slough, including an improved parking facility, should be provided via Moss Landing Road and from the parking lot near the intersection of Moss Landing Road North and Highway One. Access to Bennett Slough, with education displays and viewing areas, should be provided

via Jetty Road. Visual access shall also be maintained to these wetland areas.

8. Management responsibility for recreational use of the Elkhorn Slough area should be actively assumed by an agency or agencies with recreation management capabilities.
9. The State Department of Parks and Recreation is encouraged to evaluate the desirability of acquiring dune and beach properties at such time as they are offered for sale by the owner. A dune restoration program should be established, including protective fencing, replanting with native vegetation, and boardwalks constructed of permeable material to link parking areas and access sites with the shoreline. Controlled access points should be clearly marked, and educational displays developed to inform the general public about fragile dune habitats. The development of a dune habitat interpretive center should also be considered.
10. The potential for coastal dependent, low intensity recreational and educational use of the Old Salinas River Channel area should be studied.
11. Adequate on-site parking and public access to the beach should be a condition of development permit approvals on the Island.

5.5 ENERGY FACILITIES AND INDUSTRIAL DEVELOPMENT

Coastal dependent industries are given priority by the Coastal Act over other developments on or near the coastline. PG&E and the Kaiser facilities may expand within their existing sites in accordance with local air pollution control regulations and if consistent with the preservation of natural resources and sensitive wetland habitats. Special protection against the spillage of crude oil, gas, petroleum products, or other hazardous substances related to coastal dependent facilities must also be provided.

Reasonable options for upgrading and modernizing energy production and industrial facilities at PG&E and Kaiser Refractories, will not involve construction of off-site facilities. Future changes may include installation of 135 employee parking spaces just north of the main administration building, and closing the main entrance gate on Highway One and channeling all traffic to the access gate on Dolan Road. Modernization plans for Kaiser call for relocation of the main point of access to and from the plant off Highway One to Dolan Road. Administration buildings and truck shipping/receiving areas will be relocated to this area, and construction of additional process waste storage ponds is anticipated. If PG&E marine terminal expansion occurs, some short-term construction-

related impacts to Moss Landing State Beach and potential longer term impacts from construction of terminal support facilities could occur.

Conversion of the PG&E plant to alternative technologies such as coal, nuclear, or biomass fuels is highly unlikely. However, the California Energy Commission has identified this site as a potential site for a 500 megawatt coal-fire power plant. Use of natural gas and oil will continue as the main fuel source for the plant. Kaiser has recently requested that gas and fuel oil be replaced by refinery coke as furnace fuels. This will result in increased particulate sulfur dioxide and nitrogen oxide emissions.

Entrainment and impingement impacts to marine organisms in general are currently generated by the PG&E power plant cooling system. Based on analysis contained in PG&E's reports to the Regional Water Quality Control Board, these impacts by the cooling system are considered insignificant in terms of overall effect on the phytoplankton community in the Moss Landing vicinity. However, the results of studies currently being prepared for EPA will provide additional detail and analyses of impingement and entrainment impacts.

Increased power generation from the older existing steam turbine units 1-5 at PG&E, through replacement of boilers with higher efficiency turbine units, for higher temperature and pressure steam operation, would increase the rate of fuel consumption and therefore of uncontrolled emissions of sulfur oxides and nitrogen oxides. Although there are no firm plans for construction of additional units at PG&E, if future gas turbine units were added in a combined cycle configuration, the resultant higher utilization rates for units 1-5 would be associated with increased entrainment and impingement of organisms from Moss Landing Harbor and increased thermal discharge to Elkhorn Slough.

If the sale of OCS Leases occurs in the future, the risk of oil spills and their attendant biological impacts to Monterey Bay will increase, and some growth inducement related to onshore support facilities and crews may occur in Monterey County. OCS Leases in the Santa Cruz basin will have the potential to create significant adverse air quality impacts.

Opportunities to use waste heat for residential heating purposes in Moss Landing are limited. The two major potential uses are for fish and shellfish processing and for the processing at Kaiser Refractories. Short-run costs of developing insulated waste heat lines from PG&E to Kaiser or the fish processing plants may be prohibitive; however, long-term costs of this alternative versus heat generation from other energy sources should also be considered.

5.5.1 Key Policy

Existing coastal dependent industries in Moss Landing have local, regional, statewide and, in some cases, national significance. Accordingly, the county shall encourage maximum use and efficiency of these facilities, and to allow for their reasonable long-term growth consistent with maintaining the environmental quality and character of the Moss Landing Community and its natural resources.

5.5.2 General Policies

1. Coastal dependent industrial facilities should be encouraged to expand within existing sites before off-site expansion is considered. Commercial fishing activities and aquaculture shall have priority over other types of coastal dependent industrial uses in Industrial areas. The Kaiser industrial facility at Moss Landing should be permitted to expand within the existing site subject to conforming to all other requirements of this plan, and other State and Federal regulations.
2. Future expansion, improvement or other development including fuels conversions at P.G.&E. or Kaiser Refractories, and any other heavy industry in the area shall be considered in accordance with master plans for these facilities. This master plan requirement shall not apply to emergency or administratively approved developments under section 30624 of the Coastal Act. The master plans shall be developed by the respective industries and submitted to Monterey County for review and approval prior to approval by the County of any required permits for these industries. The master plans shall address the long range development and operation of the facilities including physical expansion and new construction, major operational changes, changes in fuels or fuel delivery systems, circulation or transportation improvements, electrical power transmission, alternative development opportunities, environmental considerations, potential mitigation of adverse environmental impacts and conformance to all other policies of the North County LCP and other State and Federal regulations. Subsequent to approval of these master plans, permit requests not in conformity with the master plans shall be considered only upon completion and approval of necessary amendments to the master plan.

This general policy shall not be construed to require disclosure in the master plans of trade secrets, proprietary or confidential information, but only location of buildings and other land use matters necessary for planning purposes.

3. The least environmentally damaging alternative should be selected for on-site modernization and upgrading of existing facilities. When selection of the least environ-

mentally damaging alternative is not possible for technical reasons, adverse environmental effects of the preferred alternative shall be mitigated to the maximum extent.

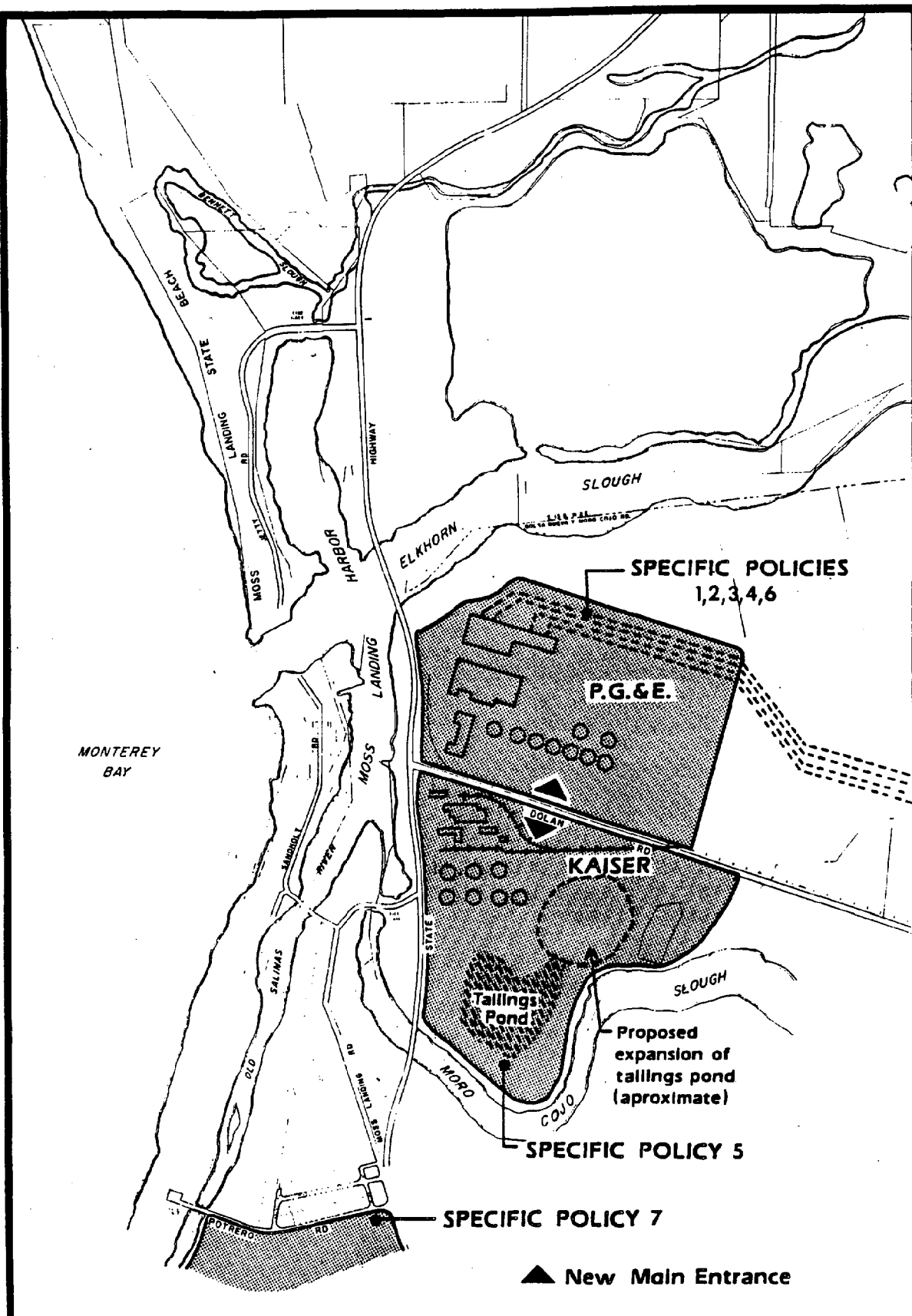
4. Modernization and expansion of industrial facilities shall be compatible with existing community land use patterns and circulation system capacities, planning objectives, and local air quality regulations in effect at the time of the granting of such approval for said expansion by the appropriate agencies.
5. Potentially hazardous industrial development shall not be located adjacent to developed areas.
6. Any nuclear plants shall avoid disruption of environmentally sensitive habitats and shall avoid seismic hazard areas. Conversion of heavy industries to coal technologies should be highly discouraged. Use of coal as a fuel should be considered only if other cleaner fuels become unavailable, and there are no resultant adverse impacts on agriculture and fishing. Should this occur, the most effective air pollution control technology available shall be utilized to ensure minimum sulfur dioxide.
7. To reduce traffic hazards, Highway One access for PG&E and Kaiser should be eliminated except in emergency. Major access for each facility should be developed on Dolan Road. This may require improvements to Dolan Road and Highway One.
8. The responsible government agencies shall periodically examine the effectiveness of PG&E's oil spill contingency clean-up plans for both on shore and off shore areas. One condition of possible future expansion of offshore tanker terminal mooring facilities should be the demonstrated effectiveness of oil spill contingency plans to minimize the environmental effects of oil spills to the maximum extent feasible. Maximum protection of Elkhorn Slough must be provided.
9. The development of mariculture using existing warm water discharge should be encouraged.
10. All new heavy industry shall be coastal dependent.
11. Due to sensitive agricultural, fishing, recreational and environmental resources in the proximity of Moss Landing, additional development of polluting heavy industry shall not be permitted unless all adverse effects on these resources are fully mitigated.

5.5.3 Specific Policies

1. Due to sensitive agricultural and environmental resources in proximity of the PG&E and Kaiser plants which could be

damaged by coal conversion, the plant should continue operation with the use of natural gas and oil fuels.

2. Methods should continue to be studied for improving efficiency and air emission controls at the PG&E and Kaiser plants by both the County and MBUAPCD.
3. In the event of future upgrading or modification of P G & E generating units 1-5, consideration should be given to continuing the cooling water discharge outfall for these units into the slough at their historical discharge rate. If the discharge rate is to be increased, environmental studies should be undertaken to determine the effect.
4. Additional Kaiser process storage ponds shall be limited to the area shown on Figure 5 and designed and located to avoid any adverse effects to wetland areas and agriculture. All feasible alternatives shall be examined to prevent loss of wetlands.
5. In the event that conversion of the PG&E power plant to a coal burning facility is necessary, effective mitigation measures to minimize adverse effects to air quality, public safety, agriculture, and aquaculture shall be required. A safe disposal site for coal ash and collected air pollutants shall be located away from inhabited areas and sensitive resources. Methods to reduce potentially significant environmental effects from runoff to an acceptable level shall be incorporated into the power plant and disposal site design.
6. Due to potential hazards related to geological conditions, proximity to populated areas, land use conflicts, and possible impacts on marine and estuarine environments, the PG&E site south of Potrero Road should not be considered a suitable location for future development of a nuclear power plant facility.
7. An atmospheric surveillance station shall be established in the Moss Landing vicinity by the Monterey Bay Unified Air Pollution Control District or the County of Monterey to monitor air pollution concentrations in addition to pertinent meteorological parameters.
8. As a condition of issuance of development permits, to industries with significant emissions, the County of Monterey shall require that an atmospheric surveillance station be established in the Moss Landing vicinity. This station should thereafter be operated by the MBUAPCD to monitor air pollution concentrations in addition to pertinent meteorological studies.
9. Further expansion of heavy industrial uses on the property owned by PG&E west of Highway One and east of the Moss Landing Harbor shall be limited to improvements or modifi-



MOSS LANDING COMMUNITY PLAN
Energy Facilities and Industrial Development

Figure 5



cations that are compatible with the road right-of-way and visual policies of the plan.

10. Possible future development of a transmission line north from the PG&E power plant shall be shown to be compatible with research and educational use of the estuarine sanctuary, and potential environmental effects shall be reduced to an acceptable level before development is allowed.

5.6 VISUAL RESOURCES AND COMMUNITY CHARACTER

The intent of the Coastal Act is that the scenic and visual qualities of coastal areas should be considered and protected as a resource of public importance with full consideration to private property rights. Communities and neighborhoods that are popular visitor destination points for recreational uses or have highly scenic and historical features shall be protected and enhanced by new development.

Viewed from great distances, Moss Landing is one of the most easily identifiable coastal communities in California. The 550-foot PG&E stacks serve as a landmark feature that unmistakably mark the location of the community from any approach.

But the special character and unique visual features of the community are derived from more than its significant industrial activities. Other factors also play a part, including its status as an historical port and setting for cannery activities; its cultural significance for scientific research; its striking natural setting and abundance of marine life and shorebirds; and its well-known collection of antique shops. The recreational opportunities it affords make it a unique destination point for an increasing number of visitors.

In summary, Moss Landing contains a diversity of natural and man-made visual features that contribute to the community's strong vitality and special character. For the benefit of both residents and those who come to work and play, care should be taken to preserve and enhance these important visual resources as the community changes and grows over time.

It is particularly important to recognize that the community itself is composed of distinctly different areas that accommodate the needs of different groups of people pursuing varying activities. The visual resources of these areas are different. The policies that follow acknowledge this by giving protection to specific natural and cultural resources as well as setting forth some broad guidelines to be used by the County, when it considers development proposals in the different areas of the community.

The success of efforts to enhance the visual and scenic qualities of the Moss Landing ultimately rest on the active participation of the many public and private members of the community and the support they can provide for the County. An important recommendation, therefore, is that a design review committee be established to provide local guidance to the County concerning the visual and aesthetic aspects of future development of Moss Landing.

5.6.1 Key Policy

1. The County's objective shall be to conserve the unique visual, cultural, and historic resources of Moss Landing to the greatest extent possible while protecting private property rights.

5.6.2 General Policies

1. To protect the visual resources of Moss Landing, development should be limited wherever possible in scenic beach, dune, estuary, and wetland areas consistent with the resource protection policies of this plan.
2. The County should implement land use and zoning designations to protect and enhance the unique natural and cultural characteristics of the Moss Landing Community.
3. The County should maintain an identification survey and inventory program of historical sites and should maintain a registry program to protect and preserve historical landmark sites and districts.
4. As early as possible in the planning stage for a proposed development project, the County shall identify any historical, architectural, archaeological or cultural resources eligible for inclusion on historical registers which may be located within the project's potential impact area. Owners of the properties containing those resources shall be promptly notified. Guidelines for preservation, restoration or adaptive use of designated historic sites should be developed.
5. The "HR" Zoning District Ordinance should be applied to designated historical sites to ensure that new onsite development is compatible with existing historical resources and to maintain the special values and unique character of the historical properties.

5.6.3 Specific Policies

1. The highest priority should be given to preserving and maintaining all fish handling and processing facilities on the island. According to both the State Lands Commission Charter for the Moss Landing Harbor District and the Coastal Act mandate, it is imperative that commercial

fishing activities be protected.

2. Where the preservation of designated historical buildings and landmarks is in jeopardy, the land and resource should be considered for acquisition by private or public organizations with the capacity to properly manage and supervise the property.
3. Design standards should be developed to address the most essential factors in conserving the visual, historic, and fishing port character of Moss Landing.
4. Scenic beaches, dunes, estuaries and wetlands should be zoned with a district that only allows structures associated with the recreational, educational and aquacultural use of the areas. Procedures and standards should be designated for review of the siting, design, landscaping, and grading for any structures proposed in these areas, including the proposed expansion of the harbor and its associated public and private commercial development.
5. Elkhorn Slough should be officially designated as a State Scenic Waterway, and its visual character should be preserved.
6. Views of the Moss Landing community, harbor and dunes from Highway 1 should be protected through regulation of landscaping and siting of new development adjacent to the highway to minimize the loss of visual access.
7. A Moss Landing Community Design Review Committee shall be formed to provide guidance to the County in the consideration of development proposals. In cooperation with the County, the committee should develop design review criteria and standards to ensure that new development is visually compatible with natural features, historical resources, and the unique character of Moss Landing. Design standards should include criteria regulating height, bulk, siting, structural design, shape, color, texture and materials used in new buildings, and should also address landscaping requirements. Once developed, these criteria shall be used by both the Committee and the County in reviewing development proposals.

The following are suggestions to the Design Review Committee in formulating design criteria for the various areas of the community:

- a) Recreational Boating/Visitor-Serving - Design standards should enhance the recreational boating/visitor serving/restaurant character of the North Harbor area. To maximize views of the harbor, building heights should be single and two story. Structures should be small scale; the use of horizontal natural or painted wood siding should be encouraged; if soil conditions

permit, utility lines for new structures should be placed underground; unsightly storage areas should be adequately screened and set back from the roadway; one restricted point of access from Highway 1 should be developed with a frontage road between the Highway and commercial/restaurant facilities in this area; parking areas should be upgraded.

- b) The Island - Design standards should enhance the commercial fishing and historical cannery character of this area. Building and bulk controls consistent with the low-lying vertical character (1 and 2 stories) and small scale of most of the buildings along the Island should be developed. Wall material should be limited to the use of natural wood for building facades near the cannery buildings. The "HR" Zoning District should be applied to the canneries where feasible, and other guidelines for preservation, should be applied as long as they do not conflict with the use of the buildings for commercial fishing purposes. Rehabilitation of existing structures and new development should include amenities for visitors such as pathways or boardwalks to the shoreline; removal or screening of unsightly storage areas. An off-street parking lot should be considered at the end of the Island, and new development proposals should provide off-street parking.
- c) Moss Landing Road - Design standards should enhance the antique shop and historical building character of the Moss Landing Road area. Height and bulk controls should be consistent with low vertical height (1 and 2 stories) and small scale of existing buildings. Wall material should be limited to wood siding, and design of new buildings should conform to the early American character of existing buildings. Historical preservation status should be applied to the Pacific Coast Steamship Company office. Utility lines should be placed underground where feasible. Opportunities to combine visitor serving commercial and residential development (first floor commercial and second floor residential) should be encouraged. Appropriate set-back standards should also be developed.

6. PUBLIC ACCESS

6.1 INTRODUCTION

The public's right to shoreline access is ensured by the provisions of the California Coastal Act. However, the Act recognizes that public demand for access must be balanced against the need for preservation of the fragile natural environment. A range of additional concerns appear as well, including the need to ensure public safety and to protect the rights of residents and landowners. Finally, the Coastal Act forbids new development from blocking public access to the coast.

The most suitable locations for physical access along the North County coast are already in public ownership or have been traditionally used by the public. This area contains three state beaches - Zmudowski, Moss Landing, and Salinas River - and the Salinas Wildlife Area. The shorelines of the rivers, sloughs, and estuaries are commonly adjoined by private lands in agriculture or grazing. The only developed public access to this type of shoreline is on Elkhorn Slough in Kirby Park. Additional areas in private ownership that provide shoreline access include sites along the Pajaro and Salinas Rivers and the Bennett, Moro Cojo, and Tembladero Sloughs.

In general, adequate access points to the shoreline exist within the North County area. There is a very real problem with the quality of present access opportunities, however. Few developed access sites or trails are to be found outside of the State beaches or Kirby Park. At many shoreline destinations parking is available only at unpaved pullouts which vary in size and degree of hazard to traffic. Many sites have experienced degradation from unsupervised or excessive use; trampling of vegetation, soil erosion, and litter are the results of unmaintained trails.

Environmental, land use, and management constraints can complicate efforts to provide public access to the shoreline.

The steep terrain, extensive mudflats, and strong currents present dangers to visitors. Fire potential and Highway 1 vehicular traffic also add to hazardous conditions. Sensitive habitat areas must be protected by directing access to specific trails or to different areas entirely. Parking areas and public facilities can have negative impacts on the visual character of the coast.

Many areas of the coast currently have little or no public access through agricultural land, due to the possibility of disturbance to farms and livestock. The Coastal Act strongly supports the protection of agricultural land and lists it as a priority use which could preempt public access to the shoreline.

Public access is also restricted through the PG&E and Kaiser Refractories plants, certain residential lands, and aquaculture operations.

There is a chronic lack of public funds at both the state and local levels to finance acquisition, development, and maintenance of shoreline access. Therefore, it is important that priorities be established for public expenditures so that limited funds be used efficiently. The emphasis should be placed on improving existing access destinations with the greatest capacity and the fewest conflicts.

6.2 Key Policy

Public access to the shoreline and along the coast shall be protected and provided, and opportunities for recreational hiking access shall be enhanced. The provision of all future access and improvements to existing access areas must be consistent with the overriding objective of protecting coastal agriculture, environmentally sensitive habitats and other sensitive coastal resource areas. The beauty of the coast, its tranquility, and the health of its environment must not be marred by public overuse or carelessness. Visual access as well as physical access should be emphasized as an appropriate response to the needs of the public.

6.3 General Policies

1. Major access areas, whether in public or private ownership shall be permanently protected for long-term public use. They shall be improved where necessary and managed properly. Major access locations are:

- (1) Giberson Road - access to Zmudowski State Beach
- (2) Jetty Road - access to Bennett Slough and Moss Landing State Beach
- (3) Sandholdt Road - access to "The Island" beaches and North Harbor
- (4) Moss Landing Marine Lab - access to beach
- (5) Potrero Road - access to Salinas River State Beach
- (6) Monterey Dunes Way - access to Salinas River State Beach
- (7) Kirby Park - access to Elkhorn Slough

2. Secondary access areas which, because of natural or man-made constraints, are suitable for limited public use shall also be protected for such use. When new access is provided or existing access is formalized or expanded, an appropriate public agency or private organization must assume management responsibility for public use, or agreements concerning such responsibility must be reached with landowners. Secondary access areas are:

- (8) McGowan Road - access to Pajaro River
- (9) Trafton Road - access to Pajaro River

- (10) Struve Road - access to Bennett Slough and Struve Pond
 - (11) Skippers - access to Elkhorn Slough and North Harbor
 - (12) Highway One Bridge-access to Elkhorn Slough
 - (13) Moss Landing Road - access to Moro Cojo Slough
 - (14) Twin Bridges - access to Salinas River
 - (15) Molera Road - access to Tembladero Slough and Old Salinas River
 - (16) Nature Conservancy - access to Elkhorn Slough
 - (17) Elkhorn Road Bridge - access to Elkhorn Slough
 - (18) Hudson Landing Road - access to Elkhorn Slough
 - (19) Porter Ranch - access to Elkhorn Slough
 - (20) Elkhorn Slough Estuarine Sanctuary - access to Elkhorn Slough
 - (21) Castroville Boulevard - access to Moro Cojo Slough
 - (22) Salinas River Mouth - access to Salinas River State Beach
 - (23) Salinas Wildlife Area - access to Salinas River lagoon and beach
3. To provide public access to and along the shoreline and to enhance general recreational opportunities, a system of trails shall be established as shown in Figure 6. This system shall include the existing Bicentennial Bike Route, trails proposed in the County's Recreational Trails Plan, and the use of public tidelands, recreational areas and roads, and easements across private properties.
4. The most active recreational use of the shoreline shall be directed to the major access areas where public ownership, public facilities, and management capabilities can best be provided. The secondary access areas, and the trails proposed in Figure 6, shall be limited to low intensities of use and to passive recreation such as nature observation, research and education.
- 6.4 Specific Policies
- A. Provision and Protection of Access Opportunities
1. The County shall require that lateral or vertical access easements be provided through private lands in those locations planned for public shoreline access or for public trails as shown in Figure 4 and 6 as a condition to issuance of coastal development permits or other approvals required from the County. In addition, the County may require dedication of access easements on any lands between the nearest public road and the shoreline as a condition of permit approval in order to provide public access opportunities to other potential shoreline destinations not shown in this plan. In general, the County will seek to arrange that access dedications are made from the property owner to the agency, if other than the County, that will ultimately have responsibility for improving and managing the access.

2. Where specific accessway or trail alignments have not been identified, but where the property in concern is in the immediate vicinity of the trail or accessways shown or proposed in Figure 4 and 6, a general offer of dedication will be required. Precise accessway or trail alignments will be agreed upon at a future time through cooperation between the landowner and the public agencies with responsibility for constructing and maintaining the trail.
3. Siting and design of development proposals in order to protect public access opportunities will be required in the permit process. Modifications to a project may be required if access cannot be otherwise protected. Existing accessways or trails can be rerouted or improved when formally dedicated in order to provide flexibility to the property owner in the use of his land, provided the rerouting does not diminish reasonable public use, enjoyment, and is consistent with policy D-1 and H-1 of this section.
4. The County shall monitor all dedicated public access easements on a continuing basis. A current detailed map of the locations of all dedicated public access easements will be maintained by the County. The map will be reviewed during consideration of applications for coastal permits or other development approvals within the Coastal Zone in order to ensure that new development does not result in the loss of existing or potential public use of dedicated easements. The County shall require modification of any development proposal that would jeopardize existing or potential public use of a dedicated access easement.
5. The County will work with local, state, and federal management agencies and landowners to ensure that accessways obtained through acquisition, dedications, and permit conditions are adequately managed and maintained so as to remain useable by the public.

B. Access Management Plans and Programs

1. Management plans or programs shall be prepared by the appropriate managing agency and approved by the County prior to improvement of existing accessways or trails or intensification of their use, or provision of new accessways. These plans and proposals shall be coordinated, where applicable, with the improvement and management of shoreline destination areas or recreation areas. Management plans and programs shall address the following points as well as the site - specific recommendations of Table 2 and shall otherwise be consistent with policies in Sections E through J below and with other applicable resource protection policies of this plan:

- types of uses to be encouraged, allowed, discouraged, and prohibited, consistent with the protection of coastal resources, agriculture and other considerations.
 - need for seasonal restrictions, if any
 - the improvements needed for trails, including boardwalks, signs, and gates and sanitary facilities.
 - proposed location, construction and capacity of parking facilities.
2. The responsible agency is encouraged, during development and implementation of access management plans, to consult as often as necessary with other appropriate agencies for general coordination purposes and in order to bring the best expertise to the ultimate management of each access location. It will be the County's policy during review and approval of access management plans to consult with other agencies, property owners and interested members of the community.
 3. The managing agency shall limit the amount of public access to a level that can be adequately managed and controlled consistent with the objectives of an approved access plan, or consistent with the levels of impact that can be sustained by the natural resources of the site without damage over the long-term. This may require reductions in current levels of access at some locations.
 4. The provision of new accessways or trails, or formalization of existing accessways or trails, is to be guided by detailed management plans, including implementation responsibilities. These should incorporate community ideas and desires to guarantee preservation of the coast's natural resources and agriculture. The County shall work closely with local citizen advisors and other agencies in planning for the provision and management of access. Funding and initial implementation of the management plans should precede the opening of new accessways or trails or intensified use of existing accessways or trails.
 5. Visual access from the nearest public road to the shoreline of Elkhorn Slough and other wetlands shall be maintained and enhanced for the enjoyment of the public in a manner compatible with other land uses permitted in the plan. Visual access to Moss Landing Harbor shall be retained as part of improvements to Highway 1 and adjacent properties. The development of scenic viewpoints where physical access is not appropriate is encouraged.
 6. In providing for both accessways and trails, the County seeks to insure that the rights of residents and property owners, including their peace, privacy, safety, health and

property, are not jeopardized by unmanaged, inappropriate, or irresponsible public use. The County and other public agencies shall cooperate with landowners to develop effective methods for directing access to the locations designated in this plan.

C. Priorities for the Improvement and Management of Access Areas (Recreation Facilities)

1. The County's overall policy shall be to require public agencies responsible for the management and improvement of coastal access areas and trails to maintain existing sites under their jurisdiction at a reasonable standard before opening new access areas to public use.
2. The State Department of Parks and Recreation shall direct immediate attention to improving the facilities and management at Jetty Road and Moss Landing State Beach.
3. Other major access areas at which improvements to management and facilities are currently needed are: Zmudowski State Beach, Salinas River State Beach and Kirby Park. As soon as the State Department of Parks and Recreation is able to improve conditions at Jetty Road and Moss Landing State Beach, it shall direct attention to Zmudowski and Salinas River State Beaches. The Moss Landing Harbor District shall improve facilities and management at Kirby Park on Elkhorn Slough.
4. When increased access is made available to Elkhorn Slough and other wetlands through the Elkhorn Slough Estuarine Sanctuary, the Nature Conservancy property, or via proposed trails, the need for effective access management will become urgent because of the environmentally sensitive nature of these areas and shall then be given top priority by responsible agencies/organizations.
5. The County encourages public agencies and property owners providing access to monitor public use, so that as shifts in the patterns and levels of public use occur over time, priorities for improvements in facilities and management can be adjusted accordingly.

D. Providing and Managing Trails.

1. Trails shown in Figure 6 are recommended as public access routes. Where trails already exist, alignments should remain the same, except where rerouting would be desirable to reduce adverse environmental or visual impacts. The siting of new trails shall require field inspection and environmental review and shall meet the requirements of this chapter and other policies of the plan.
2. In developing this trail system, lands already in public ownership or proposed for public acquisition should be used

wherever possible in preference to private property. Public roads should be used to bridge gaps where a trail is not feasible because of hazardous conditions, terrain, or the complexity of private ownership.

3. The State Department of Parks and Recreation and the Department of Fish and Game have major responsibilities in the North County for trail planning, construction, maintenance, management and liability through and between public lands under their jurisdiction. These agencies are encouraged to acquire full legal rights-of-way across private lands in accordance with the proposed Trails Map where such rights-of-way do not presently exist. The County will assist by making easements obtained in the development permit process available for use by these agencies, and will provide review and guidance to the agencies plans for trail construction, use and management.

E. Public Safety

1. Public safety in the use of accessways should be ensured wherever shoreline access is provided. In some locations, warning signs and other improvements should be used to reduce risks. Closure of access areas during periods of potential danger such as extreme fire hazard or flooding may also be appropriate.
2. North County beaches should be adequately posted to warn potential users of the hazards associated with entering the dangerous surf. Signs should include the telephone number of emergency rescue agencies. Agencies capable of offering emergency assistance should be coordinated through the Monterey Bay Aquatic Safety Commission.

F. Habitat and Resource Protection

1. In areas of existing or potential access where habitat and resource protection is identified as a major concern, studies should be conducted by qualified individuals or agencies to determine maximum acceptable levels of public use and methods by which resource values can best be protected. The conclusions of these studies should be a basis for management plans for each access location.
2. In locations where highly sensitive plant or wildlife habitats are found and conflicts between habitat protection and public access cannot be adequately resolved, access may be entirely inappropriate and should not be permitted.
3. Before the Elkhorn Slough Estuarine Sanctuary, the National Wildlife Refuge, Nature Conservancy Property, or the proposed trail system along Elkhorn Slough are opened to general public use, comprehensive management plans for the areas should be completed by the Department of Fish and Game, U. S. Fish and Wildlife Service, Moss Landing Harbor

District, and other interested agencies and individuals. Access should be limited to areas compatible with resource preservation. The shoreline of Elkhorn Slough should be kept in as natural a state as possible except for a launching ramp, minimal day use facilities, and facilities necessary for aquaculture. The State waters under the jurisdiction of the Moss Landing Harbor District should be included in the plan.

4. Trails along river and stream corridors should be sited and designed to avoid impacts to riparian vegetation, wildlife, and water quality. Measures include, but are not limited to, control of runoff and erosion, contouring and siting trails to conform to the natural topography, and separation and screening from important areas.
5. Boardwalks or pathways constructed of permeable materials should be provided at all major shoreline access points along the North County coast. These should be sited to link existing parking areas or access sites with the immediate beach or shore, channeling visitors through dunes or marsh as needed to protect sensitive habitats. All other routes through dune or marsh areas should be discouraged by the appropriate agency.
6. Accessways to intertidal areas should be sited to spread the zone of public use in appropriate areas, rather than concentrate it in a small area.
7. Educational displays alerting visitors to the fragile nature of dune and wetland environments should be posted at major access areas to them. Public education should be encouraged through communication media and programs in schools.
8. Improvements to accessways should be compatible with the character of the natural scenic environment and should be limited to those necessary to ensure public safety, protect natural resources of minimize land use conflicts.
9. New trails and access improvements, including boardwalks, signs, gates, restrooms and parking facilities, should be sited and designed or screened in a manner compatible with the goal of visual resource protection. Trails should be located out of public view and should blend with the surrounding environment and natural terrain features wherever possible. The location of the trailheads, however, should be apparent to the public and situated to facilitate supervision.
10. Boardwalks, gates, and signs should be constructed of natural materials or metal, where vandalism is a threat. Paint should be avoided to reduce maintenance.

G. Visual Access

1. Future land use planning should be compatible with the goal of providing visual access. To this end, all new structures and ancillary facilities within the public viewshed should be located and designed to be compatible with the existing character of the natural and built environments as specified in Section 2.2 of this plan, and to retain existing visual access to the shoreline from major public viewpoints and viewing corridors. Particular attention should be given to the location and design of new roads or improvements to existing roads.
2. Existing visual access shall be retained, and where appropriate, enhanced through the development of scenic viewpoints, either in conjunction with accessway improvements, improvement of existing roads or development of new roads and recreational facilities.
3. No new streetlights shall be installed unless specifically approved as part of a development application by the Board of Supervisors or its designer.

H. Land Use Compatibility

1. New development shall not encroach on well-established accessways or preclude future provision of access.
2. New accessways or trails to the shoreline provided through or adjacent to existing or new residential areas shall be opened upon completion of a management plan that adequately resolves such problems as noise and visual buffering, control of trespass, general maintenance, minimization of hazards, protection of public and private water supplies, parking, and liability.
3. Where public agencies develop accessways or trails through or adjacent to land in agricultural use, these uses should be fully protected from disturbance. A full range of mitigation measures as identified in a management plan should be used including buffer strips, barns, fences, and periodic closures.

I. Parking and Facilities

1. Improvements to existing parking and the provision of additional parking should correspond to the capacity of the shoreline destination point as determined by its size, sensitivity of the resources, and by the type(s) and intensity of uses appropriate for the area. The appropriate parking improvements should be determined as part of access management plans for each access location.

2. The following criteria should be used in planning for parking improvements.

- The provision of parking, including the access road to the parking site, should not encroach upon a major shoreline destination or access area.
- Improvement for parking should entail minimum land disturbance and should have minimal impact upon environmentally sensitive habitats and other sensitive resources.
- Parking improvements should not degrade or obstruct the public viewshed.
- The preferred parking areas should reflect the requirements of specific major user groups.
- Adequate and safe pedestrian access should be possible from the proposed parking area to the destination point.
- The proposed parking area should entail minimum conflicts with surrounding land uses.

3. Any parking providing access to Elkhorn, Moro Cojo and Bennett Sloughs must be carefully distributed in conformance with wetlands management plans applicable to these resource areas. In addition to meeting the criteria in Policy H-2, the design and construction of parking sites must include measures to retain all storm runoff on-site. The number of spaces in any one lot must be compatible with total levels of use determined to be appropriate for the access destination.

4. Barriers should be constructed around parking lots and along access roads to prevent off-road vehicles from gaining entrance to dunes and beaches which would result in serious damage to sand dune vegetation. The road behind the dunes at Zmudowski State Beach should be closed to unauthorized vehicular use.

5. Parking sites and turnouts should be located in geologically stable areas, i.e., areas where they would not cause or contribute to slope failure or excessive erosion. Potential degradation of water quality should be reduced through the use of non-impervious materials and through on-site control of storm runoff.

J. Signs and Maps

1. A uniform system of signs that identify public accessways, shoreline destinations, and areas where access is hazardous or restricted should be provided. Natural or visually compatible materials should be used, and signs should be of

an unobtrusive size.

2. All unimproved accessways made available to the public should have signs posted regarding possible safety risks. This will serve to exempt public agencies from any liability associated with accessways. Hazardous areas that are closed to the public should be appropriately signed to prohibit access.
3. An information booklet describing shoreline access sites, resources, and restrictions should be developed by the State Department of Parks and Recreation, the Coastal Commission or other appropriate agencies and should be available to the public. Public and private visitor-serving facilities should be encouraged to help fund and distribute these booklets. This booklet should not call undue attention to areas capable of accommodating only a limited number of people but, rather, should alert the public to appropriate access sites.

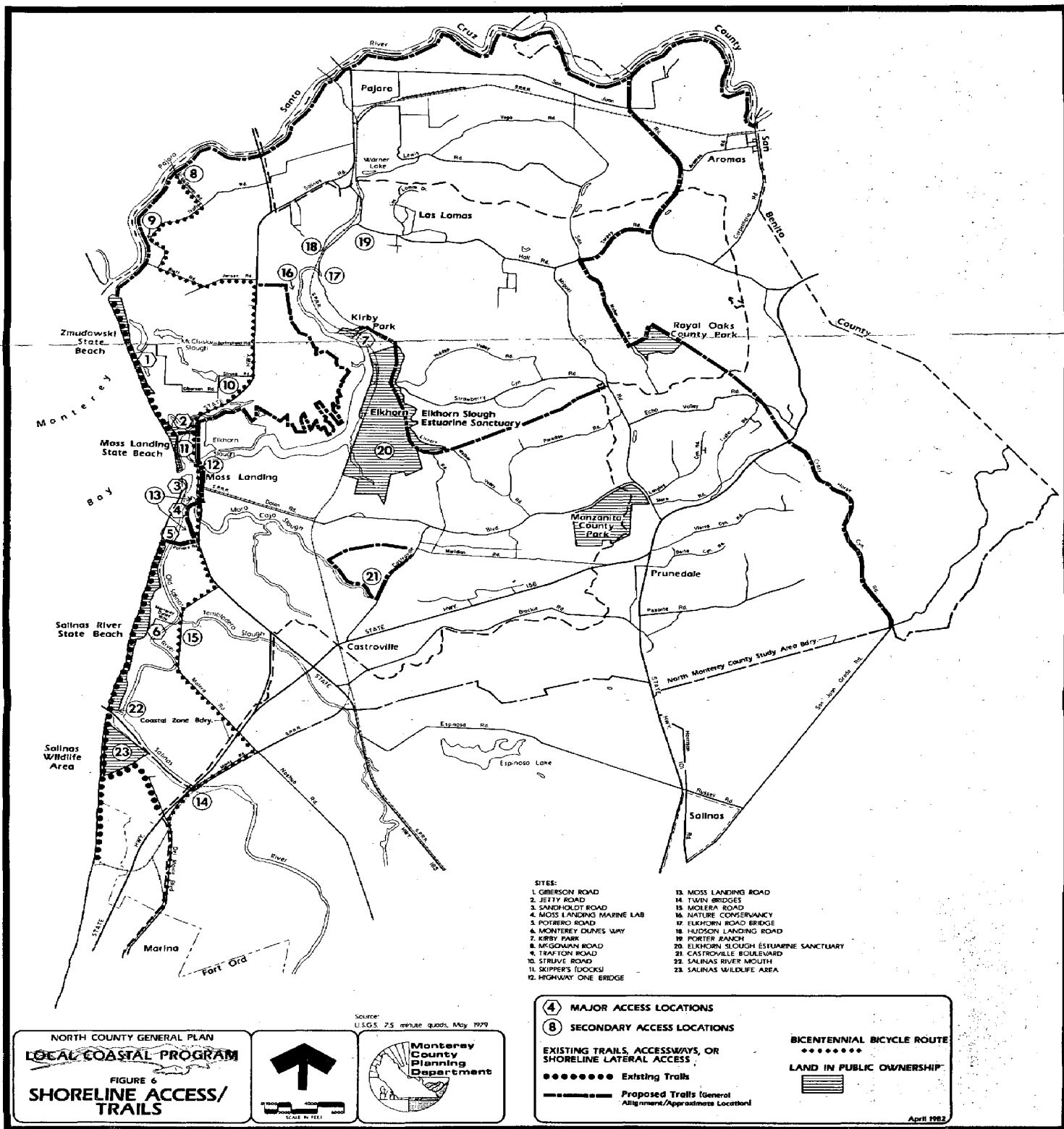


Table 2

SITE-SPECIFIC RECOMMENDATIONS FOR ACCESS AREAS

<u>Access Area</u>	<u>Provision/Acquisition</u>	<u>Management</u>	<u>Improvements</u>	<u>Constraints/Restrictions</u>
1. <u>Giberson Road-Zmudowski State Beach</u>	Consolidate parking at end of Giberson Road.	Increase management to reduce resource impact and potential hazards. Emphasize resource protection and natural characteristics of State Beach unit. This area requires constant supervision to reduce problems of vandalism, camping in dunes, uncontained fires, and hunting.	Moderate intensity. Install a beach. Improve parking area. Construct barriers to prevent vehicular access to dunes and beach - it is probable that logs or posts will have to be put in vertically to make it more difficult for them to be removed. Vehicle access to unimproved road running north of parking area should be prevented. Signs should be posted advising users to minimize walking in dune area and to warn of potentially hazardous surf.	Restrict access to dunes and wildlife habitat. Discourage trespassing onto private lands. Discourage informal trails to shoreline or through dunes.
2a. <u>Jetty Road-Bennett Slough</u>	Ensure continued public access. Investigate potential for incorporation into Moss Landing State Beach.	Provide management of roadside parking area and access trails. Ensure resource protection. Monitor visitor use and capacity. Prohibit use of motorcycles and off-road vehicles (ORV). Management should be coordinated with that of proposed, adjacent refuge.	Ensure that adequate parking area is available. Investigate the feasibility of an access route over levee once solidated Railroad. Post signs of an interpretive nature and to warn users to stay out of the dunes.	Restrict access to sensitive habitats. Discourage informal trails.
2b. <u>Moss Landing State Beach</u>	Lands at the north end of the park currently held by Moss Landing Harbor District should be transferred to the California State Department of Parks and Recreation and formally incorporated within the State Beach.	Increase supervision to reduce resource degradation of dunes. Monitor visitor use and capacity.	Improve day-use facilities and parking areas. Provide restrooms, fire pits, fish cleaning facilities. Post signs to encourage visitor avoidance of dune areas. A boardwalk may be installed to channel movement through dunes to reduce impacts on vegetation. Protective fencing should be installed.	Sensitive habitat: restrict access to dunes. Use may already be at capacity, though this may be increased with proper improvements in parking and facility capability. Discourage trails in dunes and restrict camping.
3. <u>Sandholdt Road-The "Island"</u>	N/A	Retain existing access. Monitor use and site conditions.	Improve parking. Post signs for littering, resource impacts, and hazards.	N/A
4. <u>Moss Landing Marine Lab</u>	N/A	Monitor visitor use and maintain boardwalk	None at present.	Access across the dunes should be limited.

<u>Access Area</u>	<u>Provision/Acquisition</u>	<u>Management</u>	<u>Improvements</u>	<u>Constraints/Restrictions</u>
5. <u>Potrero Road-Salinas River State Beach</u>	N/A	Increase management and supervision to reduce resource degradation, vandalism and hazards. Emphasize resource protection of the natural character of the area. Monitor visitor use and capacity.	Barriers should be installed surrounding the parking area. Lot needs re-surfacing. Day-use facilities (restroom and garbage containers) could be improved. Boardwalk should be installed connecting parking lot to beach. Signs need to be posted warning visitors to stay out of dunes. Interpretive signs may be placed here.	Sensitive habitats: dune, wetland. Discourage trails through dunes and marsh. Restrict camping in dunes. Discourage trespass into private lands. Limit number of visitors to capacity parking.
6. <u>Monterey Dunes Way-Salinas River State Beach</u>	N/A	Same as #5	Same as #5.	Same as #5.
7. <u>Kirby Park-Elkhorn Slough</u>	N/A	Provide for management in conjunction with proposed estuarine sanctuary.	Repair boat launching ramp. Improve day-use facilities. Interpretive center may be appropriate here.	Discourage informal trails through the saltwater marsh.
8. <u>McGowan Road-Pajaro River</u>	Provide improved parking area capacity of 15-30 vehicles, unless Trafton Road access point is developed for parking.	Supervise pullout or parking area and trail along levee. Restrict unauthorized motorcycle and dirtbike use. Recommend preparation of a Pajaro River Trail management plan, in cooperation with Santa Cruz County. Facilitate regrowth of riparian vegetation in area.	Develop trail or path on levee, principally for hikers (a bicycle path already exists on the Santa Cruz County side).	N/A
9. <u>Trafton Road-Pajaro River</u>	Investigate acquisition of parking area for Pajaro River levee trail.	Provide supervision to reduce existing impacts to wildlife, vegetation, and bluff. Discourage use of area by motorcycles.	Designate trail on levee. Monitor visitor use and capacity. Investigate provision of trail to bluff top. Post signs to mark access and to warn visitors to stay on trails.	Bluff is highly erodible. Discourage informal trails on bluff face. Restrict access on private lands, especially adjacent to agricultural areas. Prevent further abuse to archaeological site.
10. <u>Struve Road-Bennett Slough and Struve Pond</u>	Proposed for acquisition as part of the Elkhorn Slough National Wildlife Refuge.	Management should be provided along with that of the proposed refuge in general. Resource protection and the natural character of the marsh and waterways should be emphasized. Monitor use. Closure during breeding season of birds and salamanders should be considered. Supervision is necessary to curtail out-of-season hunting. Consider management of slough area as possible waterway for canoes and small non-motorized boats.	Develop parking or develop trail along levee; connect with parking in nearby Moss Landing State Beach. Post signs to indicate nature of wildlife refuge and conditions of use. Development of grade separation crossing of Highway One should be considered.	Sensitive habitat: wetlands. Potential hazard to users with existing need to cross Highway One.

<u>Access Area</u>	<u>Provision/Acquisition</u>	<u>Management</u>	<u>Improvements</u>	<u>Constraints/Restrictions</u>
11. <u>Skipper's (Docks)</u>	N/A	Monitor visitor use of parking area.	Allow further private development of site for recreational use.	Dangerous exposure of pedestrian to highway traffic.
12. <u>Highway One Bridge at Elkhorn Slough</u>	Provide pullout area and accessway to shoreline. Arrange with Caltrans for formal public use.	Manage for public safety, to reduce resource degradation, and to avoid trespassing.	Establish accessway to shoreline and possible undercrossing at Highway One Bridge. Parking area should be developed, but existing site is too small and dangerous. Parking area near PG&E, but on west side of highway, would be preferable. Develop trail to bridge and include pedestrian path on the proposed new Highway One Bridge.	Hazard to visitors due to highway traffic. Access to mudflats can pose a potential hazard to inexperienced users. Provision of pullout area may conflict with protection of a known archaeological site.
13. <u>Moss Landing Road -Moro Coto Slough</u>	Provide parking and shoreline accessways to the slough along Moss Landing Road (south) and near the intersection of Moss Landing Road (north) and Highway One as condition of development permits.	Manage as access for scientific, birdwatching and fishing use.	Informal, small parking areas are needed for limited use of the slough. Sign designating access area. No other improvements needed.	Conflicts with adjacent private property need to be avoided.
14. <u>Twin Bridges-Salinas River</u>	Provide for continued access.	Provide for periodic maintenance and inspection to guarantee adequacy of resource protection.	Post signs. Investigate foot trail along the Salinas River. Investigate feasibility of developing public launching ramp.	N/A
15. <u>Molera Road-Tenbladero Slough, Old Salinas River</u>	N/A	Periodically evaluate visitor use.	N/A	Sensitive habitat: wetlands. Discourage access to wildlife habitat. Discourage informal trails and trespassing on private lands.
16. <u>Nature Conservancy-Elkhorn Slough</u>	It is expected that this property will be acquired as part of the proposed Elkhorn Slough National Wildlife Refuge. Provision may have to be made for a permanent access route to the property.	Management should be provided by and be compatible with the proposed wildlife refuge. Trail access should be carefully controlled. Erosion scars exist on part of the property and may have to be controlled. Emphasize natural character of the area. Monitor use.	Limited parking area should be established. Access trails should be developed as part of the continuous trail proposed along the west side of Elkhorn Slough.	Sensitive habitat: wetlands and wildlife. This area has become important to several rare species - minimal disturbance should be permitted.

<u>Access Area</u>	<u>Provision/Acquisition</u>	<u>Management</u>	<u>Improvements</u>	<u>Constraints/Restrictions</u>
17. <u>Elkhorn Road-Elkhorn Slough</u>	Most of this area is proposed for acquisition under either the refuge or sanctuary plan. Provision should be made for parking and access.	Management should be provided in keeping with the nature of the proposed refuge and sanctuary. The natural character of the area should be emphasized, as well as protection of resources.	A parking area should be developed and an accessway to the shoreline should be constructed. The grassland and hilly character of the area east of Elkhorn Road could permit the development of a hike-in viewpoint. This area has good potential for development as part of a canoe or small boat waterway.	Sensitive habitat: wetlands. Informal trails should be discouraged. Restrict camping and unregulated hunting. No pets should be allowed here. Signs should be posted warning of potential hazard due to railroad, and discouraging trespass on to private property.
18. <u>Hudson Landing Road-Elkhorn Slough</u>	Maintain existing access.	Evaluate for development in the management plan for the Elkhorn Slough Wildlife Refuge.	None at present.	Discourage trespass on to private lands. Discourage littering, vandalism, public drinking, and use of firearms.
19. <u>Porter Ranch (The Nature Conservancy)-Elkhorn Slough</u>	Evaluate acquisition for incorporation into Elkhorn Slough Estuarine Sanctuary.	Manage for wildlife habitat. It is recommended that this area not be opened up to public at this time. Ownership of the area controls certain water and drainage rights which may be important to restoration of the wetlands, and should be managed with this in mind. Potential uses should be investigated.	Improve drainage system. The area is heavily overgrazed and has severe erosion problems which must be controlled. However, reduction or elimination of grazing must be balanced against preservation of the Santa Cruz tarweed, an endangered species which appears to respond well to light grazing.	Sensitive habitat: wetland (salt and freshwater marsh) Endangered species present. Archaeological and historical site(s) present. Discourage general public use and trespassing on private lands. Restrict access to wildlife habitat.
20. <u>Elkhorn Slough Estuarine Sanctuary</u>	Proposed additions to Elkhorn Slough Estuarine Sanctuary.	Management must be provided in accordance with sanctuary plan. Other agencies should provide trail to connect with Kirby Park to the north and Long Valley to the east.	Trail development recommended. Develop day-use and interpretive facilities. Parking areas should accommodate management and approved research and educational use.	Sensitive habitat: wetlands. Access to mudflats should be restricted, or have signs posted warning of potential hazard and resource degradation.
21. <u>Castroville Boulevard-Moro Colo Slough</u>	N/A	Provide periodic inspection to ensure resource protection and safety. Monitor use.	Establish a trail along the slough. Assist regrowth of native vegetation, and elimination of alien weeds.	Separate possible trail from agricultural and other private lands. Discourage informal trails and trespassing on private lands.
22. <u>Salinas River Mouth</u>	The Department of Parks & Recreation should investigate the acquisition of Mulligan Hill and additional land around the mouth and lower course of the Salinas River.	Manage the Mulligan Hill area as an ecological preserve. Emphasis should be on natural character of the area, and resource protection.	Clean up litter and debris. Post signs.	Sensitive habitat: dunes and wetlands. Wildlife habitat. Restrict access to these areas. Discourage trails, fires, camping, hunting, and trespassing onto private lands.
23. <u>Salinas Wildlife Area</u>	N/A	Maintain management of existing access. Provide increased supervision. Hunting should be discontinued.	Post signs for resource impact, litter, and hazards.	Sensitive habitat: dunes, wetlands and wildlife. No further development should be undertaken.

Water Resources

Page 20-21, revise discussion of Erosion and Sedimentation to read: "The long term maintenance of the natural resources of the Elkhorn and Moro Cojo Sloughs and other North County wetlands is a principal objective of the Local Coastal Program and is a requirement of the Coastal Act. The problem of rapid erosion of soils in the slough's watersheds and the consequent siltation and loss of the wetlands themselves has been a problem of growing public concern. In order to develop a program to address this critical issue, the County to employed the University of California as its consultant. A comprehensive study was completed by the University that has provided the basis for the policies and recommendations set forth in Section C below. Among the major findings of the study are that:

Almost half of the Salicornia (45%) and other wet grasslands (48%) surrounding the Slough have been converted to upland vegetation during the last 50 years. Much of the early loss of wetland habitat is associated with diking and drainage projects occurring between 1931 and 1956 on the northern, eastern and southern Slough boundaries. However, at least eighteen fans have been deposited on the western boundary of the Slough due to present agricultural and residential development adjacent to these areas.

Existing land use within the watershed of Elkhorn and Moro Cojo Sloughs contributes a sediment load far in excess of the natural rate of deposition. Sediment activity values based on the combined rates of erosion and deposition at selected sites within the upland portions of the watershed indicate that intensive agriculture has more than twice the disturbance potential of urban development, and nearly ten times that of sites with natural vegetation.

Significant volumes of sediment are presently carried by Carreros Creek during storms of relatively low magnitude, high frequency (2-year recurrence interval), and moderate streamflows (100-300 cfs.). During such times as much as 75% of the total sediment load is carried and delivered to the upper reaches of Elkhorn Slough.

Sites where the soil has been disturbed are more active sediment sources than those where natural vegetation remains or where soil cover is managed to limit erosion. Unvegetated sites on steep slopes are the greatest contributors to the sedimentation of Elkhorn Slough, and hence, to the accelerated destruction of its natural values.

The most important factors in considering the relationship between the intensity of land use on the watershed and impacts on estuarine processes is the differential erosion and infiltration rates of soils on the watershed. Large portions of the watersheds of Elkhorn and Moro Cojo Slough are comprised of highly erodible soils, particularly the Aromas Sands. Erosion and subsequent sedimentation in the estuaries varies based upon the soil type, management practice, and physiographic conditions (e.g. slope) within a particular area.

Water Resources

Page 23, revise discussion of Erosion and Sedimentation to read: "The long term maintenance of the natural resources of the Elkhorn and Moro Cojo Sloughs and other North County wetlands is a principal objectives of the Local Coastal Program and is a requirement of the Coastal Act. The problem of rapid erosion of soils in the slough's watersheds and the consequent siltation and loss of the wetlands themselves has been a problem of growing public concern. In order to develop a program to address this critical issue, the County to employed the University of California as its consultant. A comprehensive study was completed by the University that has provided the basis for the policies and recommendations set forth in Section C below. Among the major finds of the study are that:

Almost half of the Salicornia (45%) and other wet grasslands (48%) surrounding the Slough have been converted to upland vegetation during the last 50 years. Much of the early loss of wetland habitat is associated with diking and drainage projects occurring between 1931 and 1956 on the northern, eastern and southern Slough boundaries. However, at least eighteen fans have been deposited on the western boundary of the Slough due to present agricultural and residential development adjacent to these areas.

Existing land use within the watershed of Elkhorn and Moro Cojo Sloughs contributes a sediment load far in excess of the natural rate of deposition. Sediment activity values based on the combined rates of erosion and deposition at selected sites within the upland portions of the watershed indicate that intensive agriculture has more than twice the disturbance potential of urban development, and nearly ten times that of sites with natural vegetation.

Significant volumes of sediment are presently carried by Carneros Creek during storms of relatively low magnitude, high frequency (2-year recurrence interval), and moderate streamflows (100-300 cfs.). During such times as much as 75% of the total sediment load is carried and delivered to the upper reaches of Elkhorn Slough.

Sites where the soil has been disturbed are more active sediment sources than those where natural vegetation remains or where soil cover is managed to limit erosion. Unvegetated sites on steep slopes are the greatest contributors to the sedimentation of Elkhorn Slough, and hence, to the accelerated destruction of its natural values.

The most important factors in considering the relationship between the intensity of land use on the watershed and impacts on estuarine processes is the differential erosion and infiltration rates of soils on the watershed. Large portions of the watersheds of Elkhorn and Moro Cojo Slough are comprised of highly erodible soils, particularly the

Aromas Sands. Erosion and subsequent sedimentation in the estuaries varies based upon the soil type, management practice, and physiographic conditions (e.g. slope) within a particular area.

7. IMPLEMENTATION

7.1 INTRODUCTION

The Local Coastal Program Land Use Plan is the long-range guide to the County and all State agencies in all decisions relating to conservation, management, and development on the coast. The plan will be administered by the County and, also, by State agencies with jurisdiction in North County. The Federal Government as well will have an important role in helping to administer the plan through the Federal Coastal Zone Management Act's consistency provisions.

The County assumes primary responsibility for implementing the plan as it affects private land use. On a day-to-day basis the County will use the plan as the standard for evaluating and making decisions on land use proposals on the coast. Implementation of the Plan will require the county, and in some cases other jurisdictions, to develop and adopt a series of ordinances, procedures, or agreements in addition to the land use plan itself in order to carry out the Land Use Plan's map and policies. The major implementation measures that the County should adopt are outlined here. Details of these procedures and ordinances may be obtained from the County Planning Department.

7.2 BASIC PROCEDURES

7.2.1 Title 19 Monterey County Code

Title 19 Monterey County Code (Zoning) and related zoning district maps are a principal means of implementing this plan. As required by State law, zoning being developed to carry out this plan will be fully consistent with the kinds, locations, and intensities of development permitted in the plan, and will also reflect the policies and standards set forth by the plan.

New zoning districts being developed, such as the Agricultural Preservation, Agricultural Conservation, Rural Residential, Coastal Dependent Heavy Industry etc., are a direct reflection of the land use categories contained in the text of the plan and shown on the land use plan map. Principal uses permitted in each of these categories, will conform to those uses described in Section 4.3 of the plan. In addition to new ordinances devised to satisfy the plan, districts already contained in Title 19 will be used where appropriate. Design Control Districts (Chapter 20.56) and Scenic Conservation Districts (Chapter 20.44), and provisions of the Title 20 Monterey County Code (Subdivision) for appeal and for enforcement (Chapter 20.104) are among the existing parts of the ordinance that will be used to implement the plan.

Because of the land use plan compliance provisions of State laws zoning cannot be changed by the County unless these changes remain consistent with the land use plan for the particular area or use, or unless the land use plan is amended first.

7.2.2 Development Permits

Development in the coastal zone will be required to obtain permits from the County that will be approved based on demonstrated compliance with the plan and all its provisions. Some forms of development, similar to those exempted in the Coastal Act, may also be exempted from obtaining permits from the County.

Projects applying for development permits will undergo a comprehensive site plan review to determine the consistency of the proposed project with the plan. Consistency requires three basic tests.

1. The proposal must be in conformance with the kinds of uses and use intensities permitted for the specific geographical area concerned. If a proposal does not meet this basic requirement, it will not be processed further.
2. The area of review concerns conformance to the policies of the plan contained in chapters 2 through 6. If the proposal is not consistent with policies contained in these chapters it shall not be approved unless it is modified so that it is consistent. Considerations that may be reviewed for any given permit application include:
 - geologic, flood, and fire hazards
 - erosion potential
 - environmentally sensitive habitat protection
 - vegetation
 - water quality
 - water availability
 - septic tank suitability
 - compatibility with adjacent land uses
 - roads, transit, schools, and other public service and facilities
 - agricultural protection
 - visual resources
 - coastal access
 - other necessary concerns to minimize site and cumulative impacts of development.
3. All proposals must fully meet any additional zoning provisions adopted to implement the plan.

Applicants are expected to show a good faith effort by making proposals that are consistent with the plan. Applicants are responsible for providing all necessary information to support proposals as described in the policies concerning development and resources. Where information is questioned or contested by

the County, the burden of proof rests with the applicant. Where additional information is requested by the County, applicants are required to provide such information before the proposal is considered further by the County.

The County will make a good faith effort to work cooperatively with landowners in the evaluation and processing of development applications as expeditiously as possible. County staff will provide advice and guidance to the public concerning interpretation of all provisions of the plan. County staff will prepare written reports supporting all permit recommendations made by staff. These reports will summarize the development proposal, pertinent issues and information, and will describe how the proposal meets or does not meet all relevant provisions of the plan. The report will contain a specific recommendation on whether the proposal should be approved, approved with conditions, or denied. Permit reports shall be made a permanent part of the record and copies shall be available for public review.

7.2.3 Appeals

Appeals to the Coastal Commission may be made, consistent with provisions of the Coastal Act, when an individual or group believes the County is not acting in conformance with the plan. The appeals procedure is described in the California Coastal Act. Only certain kinds of developments can be appealed after a local government's LCP has been certified; these include:

- (1) Developments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tide line of the sea where there is no beach, whichever is the greater distance.
- (2) Developments approved by the local government not included within paragraph (1) located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, stream, or within 300 feet of the top of the seaward face of any coastal bluff.
- (3) Developments approved by the local government not included within paragraph (1) or (2) located in a sensitive coastal resource area if the allegation on appeal is that the development is not in conformity with the implementing actions of the certified local coastal program.
- (4) Any development approved by a coastal county that is not designated as the principal permitted use under the zoning ordinance or zoning district map.
- (5) Any development which constitutes a major public works project or a major energy facility.

7.2.4 Subdivisions

Under the definition of development contained in the Coastal Act, land divisions are a form of development. Accordingly subdivisions will be required to obtain a development permit based upon the process described in 7.2.2 above.

The minimum size of parcels permitted in land divisions shall not be less than the minimum established for the particular area in the land use plan and related zoning. In some cases, the minimum parcel sizes generally allowable for the area will not be suitable due to the constraints of the natural environment, the availability of public services or other factors that become apparent during review of the proposed subdivision. In this case, larger minimum parcel sizes will be required.

Existing legal lots of record which are smaller than the stated minimum size in the zoning district will generally be permitted to develop in a use consistent with those included in the district as long as the proposed project meets other performance standards of the land use plan.

7.2.5 Conservation Easements

Conservation and Scenic Easements and Williamson Act Contracts in use by Monterey County for many years, may be required during the coastal permit process in order to assist in carrying out the resource protection policies of the plan. In such cases specific finding will be made, upon which the easement is based. The County will work cooperatively with property owners in arranging for these easements.

Conservation and Scenic Easements will be used as the most suitable instrument in ensuring maintenance of wildlife habitats, wetlands, or other sensitive natural resource areas, and in scenic areas. These easements are in perpetuity. Williamson Act Contracts, which run for a self-renewing 20 year period, will be required the County where appropriate, to protect agricultural lands for long term agricultural use. All of these easements, may in certain circumstances, provide tax benefits for the grantor. Normally, the County will be the grantee of the easement.

The County may permit the Coastal Conservancy, because of its legislated resource protection role on the coast, to be named as grantee of the open space easement. In the future the grantor may be given a choice of grantees from a list of nonprofit organizations appropriate to receive and enforce such easements.

7.2.6 North County Coast Data Base

The County will use all available information about the natural and cultural resources of the North County coast developed in the planning process in its review of development applications and in other actions relating to the management of the coast.

This body of information will be supplemented or updated from time to time as new information is available to the County. The background reports and written responses to them are the foundation of the data base. This can be supplemented by information provided by property owners during the course of development applications or by other agencies in their individual activities. The Resource Map Book, adopted as part of the Land Use Plan will be the initial basis for determining the location of mapped resources.

The information will be maintained in the County Planning Department. Maintained as a collection of information in a central location, the data will be readily available to the public, other agencies, and County officials. During review of any projects or activities in the North County coastal area the County staff is required to review available and pertinent information and include it in recommendations that maybe made. All existing information will integrated with the Planning Department's data base.

7.2.7 Public and Agency Participation and Coordination

The County will cooperate with other government agencies on matters of mutual interest concerning the North County coastal zone. The County will provide technical or policy advice to other agencies on request and will seek advice on technical or policy matters from appropriate agencies as the need arises.

The County will provide a mechanism for advice and comment from appointed community representatives on permit matters and on long-range decisions affecting planning and management of the area. The general public is encouraged to attend and participate in the public meetings and hearings concerning administration of the plan or processing of development applications.

7.2.8 Enforcement Program

Monterey County's Local Coastal Program will be only as effective as its enforcement. Consequently, all County departments engaged in activities in the coastal area will be informed about the Local Coastal Program and will refer possible violations to the Planning Department for investigation.

Violations of subdivision or zoning ordinances will be referred to the County Counsel's Office rather than to the District Attorney when such followup is deemed necessary by the Planning Department. Violations in the coastal areas may be punished by imposition of civil penalties provided for in the Coastal Act rather than by misdemeanor prosecution normally used by the County.

The County will pursue legal remedies against persons who illegally use open space or similar easements granted to the County. The County will enjoin such misuse, and will seek recovery of damages for such misuse.

Jurisdiction problems which may arise when the County attempts to enforce the Local Coastal Program on State lands can be precluded by requiring State consent to County inspection as a condition of approval for coastal permits granted to State agencies. Federal agencies will be requested to provide adequate enforcement in their areas of jurisdiction.

7.2.9 Plan Amendments

The Local Coastal Plan (LCP) may be updated over time as need dictates. Formal amendment procedures will be used to accomplish changes to the plan or its implementation ordinances. The California Coastal Commission is required by law to consider changes or amendments to the plan, and may deny such changes if inconsistent with the Coastal Act.

7.3 ADDITIONAL PROCEDURES

In addition to the basic implementation procedures just described, there are other ways in which progress can be made towards fulfilling the purposes of the Local Coastal Program. The following is only a partial list.

7.3.1 Growth Management

A growth management program phasing residential and, where appropriate, commercial and industrial development, may be instituted in the North County coastal zone (and in other parts of the County) based upon natural resource protection, water availability, and public facility capacities constraints. A phased residential allocation system may be developed. Development and subdivision proposals could be processed at set periods during the year. If there are large numbers of applications, those not accepted in a particular process period could be considered the following period. During evaluation of applications, priority should be given to coast-dependent or related uses and development of existing parcels.

7.3.2 Restoration/Acquisition

Restoration projects refer to those activities that the County, in cooperation with property owners and other agencies, can undertake in an effort to mitigate undesirable impacts of existing development or commitment to development on the quality of the coastal environment and its resources. Examples of areas that require restoration in order to meet the environmental protection objectives of this plan have been described in various sections of the plan. For instance, some areas committed to development, by virtue of the existence of many small undeveloped parcels created for residential purposes appear to lack adequate water to serve continued development without entailing adverse impacts on the natural environment.

There are also isolated examples where natural ecosystems have been impacted, frequently from inappropriate agricultural use on land unsuited to farming. Even natural events, such as landslides, mudslides, or lightning-caused fires, result in changes or damage to the landscape and its resources. Such events may necessitate remedial action if public safety and welfare, environmental quality or scenic beauty is to be restored.

A variety of restoration techniques are available, and the County will support and encourage these.

A. Private Voluntary Action

Individual landowners are encouraged to voluntarily undertake those activities on their property which can help mitigate the types of environmental or visual problems discussed in this plan. In many cases, simple landscape screening or repainting of a structure would do much to restore scenic beauty in highly visible areas. Screening of private roads as needed would also be beneficial. Private work, in some cases, is needed in riparian areas to alleviate impacts to streams. In other areas, improved control of erosion or soil loss from sites during rain storms would help protect water quality in coastal streams.

B. Action By Other Government Agencies

All other government agencies are requested to undertake needed coastal restoration work in their areas of jurisdiction in order to realize the objectives of this plan. State Parks and Recreation in particular, is requested to work towards the restoration of environmental and scenic qualities of State Beaches it manages.

C. Site-Planning

The County can achieve necessary restoration on private and state lands by requiring such work as a condition of permit approval. This technique should be used within reason whenever possible.

D. Merger

Merger of contiguous substandard size lots held by the same owner is a means of reducing overall resource impacts in certain areas in which development of individual legal lots of record would harm the existing natural uses. The County may create a combining zone which, when applied to selected areas, will cause undersized lots, when contiguous and held by the same owner, to merge to the minimum size permitted by the existing zoning.

E. Transfer of Development Credits (TDC's)

TDC's may be suitable for use in the future in the North County coastal zone as a means of avoiding new development in highly scenic areas, environmentally sensitive habitats, or other

restoration areas.

F. Coastal Conservancy Projects

The Coastal Conservancy has been established with a broad range of powers and capabilities, all aimed at the conservation of important coastal resources. The Conservancy can perform planning studies, purchase land for various purposes, consolidate small parcels into larger more desirable parcels and resell them on the private market to "rollover" and regain its capital outlay. The result of this latter process is to overcome the environmental concerns resulting from poor lot configuration or excessive numbers of parcels in important restoration areas. The County will encourage conservancy projects that are compatible with the plan.

G. Nonprofit Private and Public Conservancy Foundations

Organizations such as the Nature Conservancy, the Trust for Public Lands, etc. are established to assist in the conservation of important natural and cultural values. These organizations can purchase land in fee or simply acquire easements to forestall development in sensitive areas. Monterey County supports the activities of these foundations in the North County coastal zone.

APPENDICES

APPENDIX A

COMPUTATION OF LAND DISTURBANCE (BAREGROUND)

The sample project evaluation sheet for land disturbance (bareground) on the following page illustrates the calculations to be provided by applicants for coastal development permits. Forms are available at the Planning Department and should be completed and submitted along with other information supporting the permit application. Planning Department will assist in explaining the form.

Completion of the evaluation sheet consists of several steps:

- Existing amount of disturbed land is calculated from a detailed map of the parcel showing structures, roads, and vegetation. The table of coefficients and/or actual measurements can be used.
- Projected amount of disturbed land is calculated from the site plan using the table of coefficients and/or actual measurements.
- Net change in disturbed land (bareground) is determined by subtracting existing bareground from projected bareground.

Planning Department Staff will verify the calculations, which may require a visit to the project site. Staff will compare the information to the current bareground balance for the subwatershed and will determine if the proposed project falls within the Land Disturbance Target (LDT) for the Subwatershed. (See Table 1) The bareground balance for the subwatershed is shown on Table 1 and will be adjusted for increases or decreases in bareground as a result of development projects, changes in agricultural cultivation, or as a result of vegetation restoration projects.

Coefficients of land disturbance are provided on the following page to assist in calculating existing or projected land disturbance where precise measurements of bareground are not made. These are expressed as a percentage of the total parcel. They are the result of actual measurements of a large sample of various land uses in the North County coastal zone using aerial photography, and therefore, represent an average amount of bareground per acre produced by a given land use. Disputes concerning existing or projected bareground are best resolved by detailed measurements provided by the applicant.

Applicants are encouraged to reduce projected bareground, and thereby reduce future erosion potential by developing site plans aimed at maximizing retention of native vegetation or other year round ground cover. For ex-ample, locations for proposed structures should be selected that minimize the length of new roads. Other site planning and development measures that minimize land disturbance are encouraged.

COEFFICIENTS OF LAND DISTURBANCE

<u>LAND USE</u>	<u>BARE GROUND EXPOSURE</u>	
	mean	st. dev.
Brush	6.0%	8.7%
Oak Woodland	1.1%	1.1%
Eucalyptus	3.2%	4.8%
Pasture; Grassland	6.5%	6.5%
Rowcrops; Artichokes	63.1%	19.2%
Strawberries	69.5%	13.6%
Orchards	93.2%	2.5%
Commercial	51.4%	28.5%
Industrial	48.2%	42.0%

Residential Uses:

51 acre lots and greater	9.6%	5.3%
31 to 50 acre lots	7.9%	6.0%
15.5 to 30 acre lots	13.2%	6.3%
10 to 15.4 acre lots	8.1%	4.8%
5 to 9.9 acre lots	9.9%	10.6%
2.4 to 4.9 acre lots	3.8%	4.1%
1 to 2.3 acre lots	14.7%	9.1%
0.5 to 0.9 acre lots	19.5%	19.0%
0.2 to 0.4 acre lots	10.8%	1.1%
0.1 acre lots	11.4%	7.1%
less than 0.1 acre lots	51.4%	12.8%

Source: University of California, Dickert and Bean 1981.

PROJECT EVALUATION SHEET

PROJECT: **XYZ, INC.**

SUBWATERSHED : **49** (Acreage **700 acres**)

EXISTING LAND USE DISTURBANCE COMPUTATION

Existing Land Use	Land Use Acreage	Disturbance Coefficient	Computed Disturbance	Measured Disturbance (Site Plan)
BRUSH	40	6.0%	2.40	
OAK Woodland	10	1.1%	0.11	
			2.51	

Total Existing Disturbance (Acres)

PROJECT DISTURBANCE COMPUTATION

Proposed Land Use	Proposed Land Use Acreage	Disturbance Coefficient	Computed Disturbance	Measured Disturbance (Site Plan)
5 acre lots	40	9.9%	3.96	
Oak Woodland	10	1.1%	0.11	
			4.07	

Total Project Disturbance (Acres)

NET PROJECT DISTURBANCE

Total Project Disturbance

Total Existing Disturbance

$$\boxed{4.07} - \boxed{2.51} = \boxed{1.56}$$

Net Change in Subwatershed

APPENDIX B

GLOSSARY OF TERMS

1. Accessory or Appurtenant Use or Structure: Any use or structure accessory to the main use and customarily a part thereof; an accessory use is clearly incidental and secondary to the main use and does not change the character of the main use. (Santa Cruz LCP.)
2. Aquaculture: The culture and husbandry of aquatic organisms, including but not limited to fish, shellfish, mollusks, crustaceans, kelp and other algae (Public Resources Code).
3. Access Area: Area encompassing the accessway(s) and shoreline destination. (Carmel Area Shoreline Access Background Report.)
4. Access Destination/Shoreline Destination: An area which provides either contact with the water's edge, such as a beach, or visual access to the ocean, such as a blufftop trail or vista point. (Santa Cruz County LCP.)
5. Accessway: Trail (or staircase, ramp, boardwalk, etc.) to or along the shoreline or blufftop. It may provide vertical or lateral access. (After Carmel Area Shoreline Access Background Report.)
6. Active Fault: One that has moved in recent geologic time and which is likely to move again in the relatively near future. For planning purposes, the time frame extends on the order of 11,000 years in the past and 100 years in the future. (After American Geological Institute.)
7. Agriculture-Related Uses, Facilities or Operations: Those uses and facilities that are related to or involve the production of plant materials and animals useful to humans but which tend not to be on-site soil dependent. (Monterey County Planning Department.)
8. Bluff-Top Access: Access to and along a bluff where no beach exists for the purpose of public viewing, or where trails can be sited to connect pocket beaches. (After Statewide Interpretive Guidelines for Public Access.)
9. Chaparral: An evergreen plant community of drought-adapted shrubs usually found on dry slopes and ridges. Chamise, toyon, scrub oak, ceonothus, and manzanita are characteristics species. (Monterey County Planning Department.)
10. Coastal-Dependent Development or Use: Any development or use which requires a site on or adjacent to the sea to be able to function at all. (Coastal Act.)

11. Coastal Prairie: Relatively rare grassland community dominated by native perennial bunch grasses and limited to the coastal terraces and outer Coast Ranges from Monterey County to southern Oregon. (after Point Lobos State Resource Inventory, Dr. W. J. Barry.)
12. Coastal-Related Development: Any use that is dependent on a coastal dependent development or use. (Coastal Act.)
13. Community (Biotic): An aggregate of organisms which forms a distinct ecological unit; it may be described in terms of flora or fauna, or both. (Wildlife Planning Glossary, U. S. Forest Service.)
14. Critical Viewshed: The composite area in the Big Sur segment visible from Highway One and major public viewing areas. (Big Sur LCP Land Use Plan.)
15. Cross Slope/Average Cross Slope: The average slope of a parcel determined by the formula $S = 0.002291L/A$

Where: 1 = Interval of measured contours in feet

S = Average percent cross slope of parcel

L = Summation of length of contours in feet (i. e. map measurement of contours in inches X the scale).

A = Area of parcel in acres. (Monterey County Subdivision Ordinance 1713.)

The derivation is based on the fact that 1 acre = 43,560 square feet and that one square foot (the unit produced by multiplying 1 times L) = $1/43,560$ acre, or 2.29×0.00001 acre, and that it is necessary to multiply by 100 in order to arrive at a percent rather than a decimal.

16. Development: On land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining or extraction of any materials; change in the density or intensity of use of land, including but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber

operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). (Coastal Act.)

17. Disjunct: A plant or animal species found in an area outside of its normal range or distribution. (San Luis Obispo County LCP Land Use Plan.)
18. Dwarf Coastal Chaparral: A maritime chaparral association that supports several endemic plant species and in which the plants are dwarf in stature, possibly the result of low water availability. (after Point Lobos State Reserve Resource Inventory.)
19. Ecosystem: A system formed by the interactions of a community of organisms with their environment. (Wildland Planning Glossary, US Forest Service.)
20. Endangered Species: See Rare species.
21. Energy Facility: Any public or private processing, producing, generating, storing, transmitting, or recovering facility for electricity, natural gas, petroleum, coal, or other source of energy. (Coastal Act.)
22. Environmentally Sensitive Habitat Area: Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. (Coastal Act.)
23. Essential Ranching Structures: Structures required for commercial ranching operations such as barns, toolsheds, etc. (Monterey County Planning Department.)
24. Estuary: A coastal water body usually semi-enclosed by land, but which has open, partially obstructed, or intermittent exchange with the ocean and in which ocean water is at least occasionally diluted by fresh water runoff from the lands. The salinity may be periodically increased above the open ocean by evaporation. In general, the boundary between "wetlands" and "estuary" is the line of extreme low water. (State-wide Interpretive Guidelines for Wetlands.)
25. Exotic Plant: Any plant species that is not native to the area where it occurs; an introduced plant species. (After Wildland Planning Glossary, US Forest Service.)
26. Fault: A fracture in the earth's crust along which there has been differential movement of the two sides. (After Monterey County Seismic Safety Element 1975.)

27. Fault Trace: The intersection of a fault with the earth's surface as revealed by the dislocation of fences, roads, by ridges and furrows in the grounds, by dislocations in rock strata, etc. (After Monterey County Seismic Safety Element 1975.)
28. Fault Zone: A zone or band of interconnected, closely-spaced faults and fault traces. (Monterey County Seismic Safety Element 1975.)
29. Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors. (Coastal Act.)
30. Floodplain, 100-year: The nearly level land situated on either side of stream channel which is subject to the overflow of flood waters which, may on the average, occur once every 100 years. (After Soil Conservation Society of America.)
31. Floodway: The channel of a stream or other watercourse and the adjacent land area required to carry and discharge the 100-year flood and which must be kept free of encroachment in order to avoid an increase in water surface elevation of more than one foot at any point. (Federal Flood Insurance Program.)
32. Floodway Fringe: The area between the floodway and the boundary of the floodplain which could be completely obstructed without increasing the water surface elevation of the 100-year flood by more than 1.0 foot at any point. (Federal Flood Insurance Program.)
33. Formal Access: Access that has been established with improvements or signing. (After Big Sur and Carmel Area Shoreline Access Background Reports.)
34. High Hazard Areas: Areas in which there are or may be a substantial risk of damage to life and property as a result of flood, fire, or geologic and seismic hazards, including tsunami. The following areas are defined as high hazard areas (North County and Carmel Area LCP Land Use Plan):

Seismic and Geologic Hazards:

- Zones 1/8 mile on each side of active or potentially active faults
- Areas of tsunami hazard
- Areas indicated as "Underlain by Recent Alluvium" and "Relatively Unstable Upland Areas" on Map 5 of the County Seismic Safety Element.
- Geotechnical Evaluation Zones IV, V, and VI on Maps A-Q of the County Seismic Safety Element Maps.

- Geotechnical Evaluation Zones V and VI on the Monterey Peninsula Map of the County Seismic Safety Element.

Flood Hazard Area:

- Everything included within the 100-year floodplain

Fire Hazard:

- Areas classified as having a high to extreme fire hazard through application of the Department of Forestry criteria.

35. Implementing Actions: The ordinances, regulations or programs which implement the provisions of the certified local coastal program. (Coastal Act.)
36. Informal Access: Access established through public use without improvements or signing on public or private lands. (After Big Sur and Carmel Area Shoreline Access Background Reports.)
37. In-Lieu-Fees: Fees paid to the County or other public agency as substitution for the required dedication of land to the agency or development for a stated public purpose, such as provision of access, low and moderate income housing, road improvements or parks. (Monterey County Planning Department.)
38. Intermittent Stream: A stream (c.f. stream) which flows during a portion of the year only, generally during the wet season; intermittent streams are designated on USGS Maps by a dash and three dots symbol. (After Statewide Interpretive Guideline for Wetlands.)
39. Intertidal: Of or pertaining to the shoreline area that is above the low tide mark and below the high tide mark. (Santa Barbara County Coastal Plan.)
40. Invasive Plant Species: An exotic or native plant species which is absent in undisturbed conditions but which will invade and, often displace, the original vegetation under conditions of disturbance including continued overuse. The term is most commonly used in connection with exotic or introduced species. (After Wildland Planning Glossary, US Forest Service.)
41. Landmark Trees: Visually significant, historically significant or exemplary specimens of species. (Big Sur LCP Land Use Plan.)

42. Lateral Access: A path or trail which runs parallel to or along the shoreline. Widths of lateral access may vary, but in areas where sandy beach exists, they generally encompass a minimum of 25 feet of dry sandy beach. (Santa Cruz County LCP.)
43. Level of Service: A measure of the ability of a section of roadway of significant length to carry specific volumes of traffic. (Highway Capacity Manual, 1965.)
44. Local Coastal Program: A local government's (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resource areas, other implementing actions, which when taken together, meet the requirements of and implement the provisions and policies of the California Coastal Act at the local level. (Coastal Act.)
45. Maritime Chaparral: A unique type of chaparral found close to the coast within the summer fog zone climate and characterized by a high proportion of localized endemic plant species. (After North County Environmentally Sensitive Habitat Areas Draft Background Report.)
46. Marsh: A wetlands: A tract of low wet land that is periodically inundated with fresh or saline water characterized by grasses, sedges, cattails and rushes.
47. New Development: Any development activity (c. f. Development) with the exception of replacement of structures (c. f. Replacement) remodeling of existing structures (c. f. Remodeling) or repair and maintenance activities (c. f. Repair and maintenance). (Statewide Interpretive Guidelines for Public Access.)
48. Perennial Stream: A stream (c. f. stream) that normally flows throughout the year. Perennial streams are designated by a solid line symbol on United States Geological Survey topographic maps. (After Coastal Commission's Interpretive Guidelines for Wetlands.)
49. Permit: Any license, certificate, approval, or other entitlement for use granted or denied by any public agency which is subject to the provisions of the Local Coastal Program. (Coastal Act.)
50. Potentially Active Fault: A fault along which there has been displacement during the last 3 million years, but not during the last 11,000 years, and along which there might be displacement in the future. (Monterey County, Seismic Safety Element, 1975.)

51. Prime Agricultural Land/Soils: Those lands defined in Section 51201 of the Government Code as follows:
- a. All land which qualifies for rating as class 1 or Class 11 in the Soil Conservation Service land use capability classifications.
 - b. Land which qualifies for rating 80 through 100 in the Storie Index Rating.
 - c. Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.
 - d. Land planted with fruit-or-not-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars per acre.
52. Productive Agricultural Land/Soils: Those lands that qualify as Class 111 or 1V in the Soil Conservation Service land use capability classification scheme (Soil Conservation Service.) In North County, lands qualifying as prime under (c) and (d), of Section 51201 of the Government Code are included as productive agricultural lands.
53. Public Viewshed: The composite area visible from major public use areas and scenic corridors. (Carmel Area Land Use Plan.)
54. Public Works:
- a. All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission, except for energy facilities.
 - b. All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities.
 - c. All public financed recreational facilities, all projects of the State Coastal Conservancy and any development by a special district.
 - d. All community college facilities. (Coastal Act.)

55. Rare and Endangered Species: Species identified as rare, endangered and/or threatened by the State Department of Fish and Game, United States Department of Interior Fish and Wildlife Service, and/or the California Native Plant Society. (After Monterey County LCP ESH background reports.)
56. Relict: A persistent remnant of an otherwise extinct flora or fauna. (San Luis Obispo County LCP Land Use Plan.)
57. Remodeling of Existing Structure: Improvements to a structure which do not change the use or intensity of use of the structure, or of the land or water; nor increase the area, height and/or bulk of the structure by more than 10 percent; and which do not interfere with a currently existing public view or public accessway. (Statewide Interpretive Guidelines for Public Access.)
58. Repair and Maintenance: Activities required to prevent the decline or failure of a structure (c.f. Structure) or public works facility (c.f. Public Works) and which do not result in an additional to, or enlargement or expansion of, the object of such repair or maintenance activities. (After Coastal Act, Sec., 30610.)
59. Replacement of Structures: The action or process of restoring or rebuilding a structure (c.f. Structure) in the same location as the original structure. Replacement must be consistent with zoning requirements, be of the same use, and in size, area, height, and bulk no more than 10% in excess of the destroyed structure. (Coastal Act. Section 30610.)
60. Restoration Areas: Areas which generally require mitigation of adverse impacts from existing uses, including residential and recreational uses. These areas are specifically discussed and identified in the various land use plans.
61. Riparian Corridor: An area consisting of the stream channel and an area on each side of the stream to be measured from the mean rainy season (bankful) flow-line as follows:

Carmel Area and North County Land Use Plans

- (a) 150-foot zone from each side of perennial streams, or the extent of riparian vegetation, whichever is greater.
- (b) 50 - foot zone from each side of intermittent streams, or the extent of riparian vegetation, whichever is greater.

Big Sur Land Use Plan

- the 150-foot zone on each side of a stream.

62. Riparian Habitat/Community/Woodland: An area of vegetation and associated animal species which typically occurs along freshwater course. Riparian woodland is generally restricted to a linear strip along streams although where river valleys are broad, the extent of riparian woodland is often correspondingly broad. Characteristic woody species are Black Cottonwood, Sycamore, Red Alder, White Alder, Box Elder and Willow species. (After San Luis Obispo County Local Coastal Plan and California Plant Life by Ornduff.)
63. Safe Yield: See Sustained Yield.
64. Second Structures: Guest rooms, guest houses or non-commercial and non-residential accessory structures clearly subordinate and incidental to the principal residence or other main building on the same building site. (After Monterey County Zoning Ordinance 911 and Big Sur Land Use Plan.)
65. Salvage Logging: Cutting primarily to utilize dead or dying trees or deteriorating trees that will not be merchantable if left in the stand until the next scheduled cut. (Wildland Planning Glossary, US Forest Service.)
66. Selective Logging: Removal of mature timber usually the oldest, largest trees, either as single scattered trees or small groups, at relatively short intervals, by means of which the continuous establishment of natural reproduction is encouraged and an unevenaged stand is maintained. (Wildland Planning Glossary, US Forest Service.)
67. Serpentine Rock Habitat: A unique plant community consisting largely of native species, many which are rare, endangered and disjunct, which exhibit varying degrees of confinement to serpentine soils. (After Big Sur Environmentally Sensitive Habitat Areas Background Report.)
68. Shoreline Access: The provision of pedestrian access from a public road to and along the shoreline. (After Santa Cruz County LCP.)
69. Shoreline Destination: See Access Destination.
70. Significant Hazard: See High Hazards:
71. Significant Historical Buildings, Landmarks and Districts: Those buildings, landmarks or districts identified as historically significant by the National Historic Landmarks Program or the National Register of Historic Places and/or the Register of California Historical Places and/or the County's future inventory and registry program. (Monterey

County Planning Department; After Big Sur LCP Land Use Plan.)

72. Special District: Any public agency other than a local government formed pursuant to general law or special act for the local performance of governmental or proprietary functions within limited boundaries. "Special district" includes, but is not limited to, a county service area, a maintenance district or area, an improvement district or improvement zone, or any other zone or area, formed for the purpose of designating an area within which a property tax rate will be levied to pay for a service or improvement benefiting that area. (Coastal Act.)
73. Special Treatment Area (Forestry): Those identifiable and geographically bounded forested areas, depicted on the LCP Resource Maps, that constitute a significant habitat area, area of special scenic significance, and any land where logging activities could adversely affect public recreation area or the biological productivity of any wetland, estuary, or stream especially valuable because of its role in a coastal ecosystem. (After Coastal Act.)
74. Stream/Stream Corridor/Stream Channel: A natural water-course as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence or having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil or debris. (Statewide Interpretive Guidelines for Wetlands.)
75. Stream Discharge: The volume of water flowing past a point per unit time, commonly expressed as cubic feet per second, million gallons per day, gallons per minute. (Soil Conservation Society of America.)
76. Structure: Building or other facility, including but not limited to, any road, retaining wall, pipe, conduit, telephone line, electrical power transmission or distribution line. (After Coastal Act.)
77. Sustained Yield or Long-Term Sustained Yield: The yield that a renewable resource can produce continuously over the long-term at a given intensity of management without impairment of the resource and other associated resources. (After Wildland Planning Glossary, US Forest Service.)
78. Threatened Species: See Rare and Endangered Species.
79. Tidepool: An accumulation of sea water remaining in a depression on a beach or reef after the tide receded. Characteristic habitat of a variety of plant and animal species. (From Santa Barbara County Local Coastal Plan.)

80. Vertical Access: A path or trail which connects the nearest public roadway with a shoreline destination via a reasonably direct route. (Santa Cruz County LCP.)
81. Visitor-Serving Facility: Public and private development that provides accommodations, food and/or services for visitors or tourists. (Santa Cruz County LCP.)
82. Visual Access: Access for scenic viewing of the shoreline and/or ocean from either a vista point or public road or trail. (Monterey County Planning Department.)
83. Watershed: The region drained by, or contributing water to, a stream, spring, lake or other body of water. (Santa Cruz County LCP.)
84. Wetlands: Lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, fresh water marshes, open or closed brackish water marshes, swamps, mudflats, and fens. (Coastal Act.)

APPENDIX C

AMENDMENTS TO THE NORTH COUNTY LAND USE PLAN

	Board of Supervisors	Coastal Commission
	Approval	Approval
1. Added "Special Treatment" designation and text language for the Trails End Mobile Manor, Dolan Road area.	May 4, 1982	July 14, 1982
2. Added Policy 5.5.3.7	May 18, 1982	August 12, 1982

