MONTEREY COUNTY

GENERAL PLAN

ADOPTED BY THE MONTEREY COUNTY
BOARD OF SUPERVISORS ON
SEPTEMBER 30, 1982.
AMENDMENTS INCCLUDED.

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UPDATE INDEX

THE GENERAL PLAN INCLUDES EIGHT AREA PLANS: *This document represents the General Plan policies for Monterey County. Additional policies specific to particular areas are provided for in one of the eight Area Plans. These plans are sub-sets of the General Plan. In addition to the General Plan, the Local Coastal Program, which includes four land use plans and an implementation plan, addresses policies specific to the coastal zone. All documents are available at the Monterey County Planning and Building Inspection Department.*

This update index only addresses amendments that have been made to this overall policy document. Each area plan includes a separate update index listing amendments.

GENERAL PLAN - AMENDMENTS

As Adopted by the Monterey County Board of Supervisors for the following dates:

1. ***March 22, 1983 -*** *MAP CHANGES - Creates the River Road Area of Development Concentration.*

2. ***December 13, 1983 -*** *ADD AREA PLAN - Adds Toro Area Plan to the Monterey County General Plan.*

3. ***December 20, 1983 -*** *MAP CHANGES - Laguna Seca Office Park.*

4. ***July 31, 1984 -*** *ADD AREA PLAN - Adds Carmel Valley Master Plan to the Monterey County General Plan.*

5. ***July 31, 1984 -*** *ADD POLICY #26.1.9 - Provides for Ridgeline Development Standards.*

6. ***July 31, 1984 -*** *MINOR TEXT CHANGES*

7. ***July 31, 1984 -*** *ADD/AMEND STANDARDS - Adds/amends fire protection standards. Amend Policies 17.3.5, 17.4.2, 17.3.12, 17.3.15; Delete Policy 17.3.7; Add Policy 17.3.10; Amend Glossary re: "All Weather Road" and "Tertiary Road."*

8. ***December 4, 1984 -*** *ADD POLICIES - Adds Open Space and Agricultural Policies 1.1.3, 4.1, 26.1.2, 27.3.4, 30.0.5, 34.1.7, 40.2.2.*

9. ***December 17, 1984 -*** *ADD AREA PLAN - Adds Greater Monterey Peninsula Area Plan to Monterey County General Plan.*

10. ***July 2, 1985 -*** *ADD AREA PLAN - Adds North County Area Plan to the Monterey County General Plan.*

PREFACE

Planning and the results of planning decisions have daily effects on every member of our community. Every type of activity that the County is involved in or that occurs in the County is related to planning. This includes such items as the yearly county budget, subdivision development, protection of air and water quality, law enforcement and fire protection, road development, and parks acquisition. Every decision made by the Board of Supervisors and the Planning Commission affects and in some way modifies planning in Monterey County. It is hoped that this updated General Plan will serve as the basis for many of the decisions made by these bodies.

This updated Monterey County General Plan is a comprehensive revision of the County's previous general plan adopted in 1968. The updated General Plan represents the most current countywide philosophy of how, where, and when the County should grow and is based on the values, needs, and desires of the County's populace. It is the product of an intensive two-year commitment of time and resources. The Planning Department staff, with the assistance of other county departments, compiled and analyzed the most exhaustive quantity of data ever assembled about the County and made every effort to formulate draft goals, objectives, and policies reflective of their findings. An eighteen-member Citizens Advisory Committee (CAC), chosen to represent a broad spectrum of interests and geographic areas, worked closely with the staff to review background information and to provide guidance regarding the direction and substance of the goals, objectives, and policies of the plan.

Through preparation of this updated General Plan, it is the intent of Monterey County to maintain and enhance the County's rural character, natural resources, and economic base by providing for adequate residential and industrial growth in areas best suited for development while restricting urban sprawl and indiscriminate development. In the future, as in the general plan update process, strong efforts must be made to coordinate the County's planning activities with those of other levels of government (city, state, and federal). Most importantly, this general plan document must be periodically reviewed and, when necessary, revised to ensure that the interests of the entire County are served to the best possible extent.

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INTRODUCTION

WHAT IS PLANNING?

"Planning" is a method by which we make sound decisions about the future of our County--what it will look like, what kinds of activities will be carried out in which parts of the County, what areas will be preserved as open space and so on. Planning is not a one time activity; rather, it should be considered as an on-going "process" which provides a means for elected officials, citizens, interest groups, and professionals to come to grips with the allocation of scarce county resources without waste of these valuable resources. Planning considers the totality of the County in an effort to provide a framework for guiding orderly growth and development by relating, balancing, and harmonizing the County's physical, social, economic, and cultural features.

WHAT IS A GENERAL PLAN?

A general plan is a long-term, comprehensive guide which addresses all aspects of future growth, development, and conservation within a city or county. Because a general plan is a long-range document, it usually addresses conditions up to a point approximately twenty years in the future. As a comprehensive guide, a general plan addresses all types of uses such as the location of new industrial sites, shopping facilities, parks, schools, hospitals, residential areas, and transportation facilities.

In addition to guiding future growth, a general plan is legally binding on local jurisdictions. Once a city or county has formally adopted a general plan, new development approved by the jurisdiction must be in keeping with the plan's policies, standards, and locational criteria.

WHAT ARE THE REQUIREMENTS FOR A GENERAL PLAN?

State law establishes certain minimum requirements which a county must meet regarding the substance and content of a general plan. The most basic and perhaps significant requirement is that a general plan must consist of a diagram or diagrams and a text which set forth the County's long-range goals and objectives as well as policies, principles, standards, and plan proposals designed to make sure that the goals and objectives are met. A general plan also must address nine subject areas: land use, circulation, housing, conservation, open space, seismic safety, noise, scenic highways, and safety. In turn, the law provides detailed requirements for each of these nine subject areas. All of the various component parts of a general plan, when taken together, are required to comprise a document which is integrated and internally consistent.

PAST PLANNING EFFORTS IN MONTEREY COUNTY

Monterey County is, in many respects, a microcosm of California with a rich and varied array of people and cultural resources, mountains, agricultural lands, ocean resources, rivers, forested areas, cities, and rural communities. Protection and use of these resources, which can pose both problems and opportunities, have for many years been at the heart of Monterey County's planning efforts. Some important dates associated with planning in Monterey County are listed below:

1930 --	Monterey County Planning Commission was created.
1950s --	Monterey County Planning Department was established.
1968 --	Monterey County General Plan was adopted by the Board of Supervisors.
1968 to mid-1970s --	Various additional general plan elements were adopted (such as noise and seismic safety) as required by changes in state law.

Planning has accomplished a great deal in Monterey County. Accomplishments for which all of the County's residents can be extremely proud include protection of agricultural lands and scenic areas, control of outdoor advertising, protection of coastal resources, provision of recreational opportunities, and protection of public health, safety, and environmental quality.

Although the County's residents and visitors are presently enjoying and benefiting from past efforts to provide for sound planning, the County's efforts cannot stop here. In 1979, the Board of Supervisors evidenced its commitment to continue the County's tradition of good planning by funding preparation of a comprehensive general plan update. The General Plan Update Program represents the first <u>total</u> revision of the general plan since 1968 and takes into account changing legal requirements, needs of county citizenry, and changing conditions at the local, state, and national levels.

HOW WAS THIS GENERAL PLAN UPDATE PREPARED?

The general plan update process began with the collection of data and the preparation of a comprehensive series of background reports analyzing a wide variety of factors with important planning implications. These background reports represent the most exhaustive and comprehensive study of Monterey County ever undertaken; they are used as the foundation for formulating countywide policies and designating future land uses in the General Plan. The background reports, reviewed by technical experts as well as citizen groups, address such wide ranging subjects as housing, environmental constraints, and transportation. A complete list of the background reports is provided in Appendix C (Monterey County General Plan Background Reports).

As each background report was prepared, major issues pertinent to the various data subject areas were identified. These issues, along with the County's adopted Growth Management Policy

(Appendix A), were the basis for the formulation of preliminary planning policy options later formalized as countywide goals, objectives, and policies for each subject area.

Goals, the County's most general planning statements, were formulated first in the planning process and represent the philosophical underpinnings of the general plan. Objectives, which are more finite and quantifiable, were formulated next. Objectives are structured in a manner that will enable the County to measure its progress in meeting general plan goals. Finally, policies were developed which give specific guidelines to be followed in order to attain the County's goals and objectives.

After the formulation of goals, objectives, and policies, a countywide land use plan was prepared in map form (Figure 13). The land use plan depicts the spatial location of all proposed land uses in the unincorporated area and is based upon countywide goals, objectives, and policies, data analyzed and issues identified during background report preparation, and upon the County's adopted Growth Management Policy. The countywide land use plan, along with the goals, objectives, policies, and the Growth Management Policy, is to be used to guide the course of the County's future land use activities and to act as the basis for evaluation of public and private conservation and development proposals.

During the entire process outlined above, the maximum citizen, technical, and governmental agency participation was sought. An 18-member countywide Citizens Advisory Committee was appointed by the Board of Supervisors to provide citizen and interest group review of background reports, goals, objectives, and policies. A Technical Advisory Committee made up of County department heads was also utilized to provide expertise in the review of data collection, data analysis, and formulation of goals, objectives, and policies. In addition to the Technical Advisory Committee, other technical review was obtained as needed. In an effort to ensure interjurisdictional coordination, copies of all general plan update materials were sent to each city and to the Association of Monterey Bay Area Governments (AMBAG) for review and comment. These agency comments were incorporated into general plan documents whenever possible.

It is important to recognize that the General Plan Update Program has, thus far, been directed toward preparation of a document which is countywide in scope. Although the countywide General Plan is a comprehensive and detailed planning tool, its provisions must be refined and tailored to meet the needs of the County's various geographical sub-areas. These sub-areas have substantially varied resources, issues, and needs. The process of refining the countywide plan to meet the needs of these sub-areas will begin immediately after the adoption of the countywide plan.

HOW IS THIS GENERAL PLAN ORGANIZED?

The updated General Plan is organized into four components: natural resources, environmental constraints, human resources, and county development. Each of these components addresses subject matter required for one or more of the mandatory general plan elements. Some components also address subject matter which the County is permitted, but not required, to address. This system of organization permits a thorough integration of data and policy

statements from various subject areas. Table 1 shows the relationship between the nine required general plan elements, the various permitted elements, and the four components of the Monterey County General Plan--all required general plan elements and some permitted elements have been addressed in the general plan update.

Policy guidance will be provided at two levels of detail: countywide and for each of the County's geographic sub-areas known as planning areas. (Figure 1 shows the location of the County's eight planning areas.) This document, which contains countywide goals, objectives, policies and the countywide land use plan, will constitute the overall Monterey County General Plan.

No individual goal, objective, policy, or other part of the plan should be interpreted in isolation. Rather, proper interpretation must be based on the premise that the plan is an integrated document with interrelating components.

Further detail will be provided upon preparation of area plans to be adopted as part of the General Plan. Each area plan will contain background data, planning strategies, and a land use plan based on the countywide General Plan but tailored to the specific needs of the planning area. Where appropriate, the area plans will build upon the policy direction provided in the countywide General Plan; however, it may not be necessary or desirable to refine all countywide goals, objectives, and policies at the area plan level.

Since they are more definitive in specific land use designations, the area plans may not, in certain instances, precisely reflect the generalized designations of the countywide land use plan. Also, as more detailed information becomes usable on the planning area level, as area residents express legitimate concerns about specific sites or properties, or as a balance and compatibility of land uses are sought, major revisions such as changes in land use designations may be necessary. As part of the countywide General Plan, any small refinement or major revision of area plans must, in all cases, be consistent with adopted countywide goals, objectives, and policies and with the Monterey County Growth Management Policy

For each of the major subject areas addressed in this General Plan, such as seismic safety or land use, a uniform organizational system is used. First, pertinent data from the subject area background report is presented in summary form. Second, the summary is followed by a statement of significant issues raised through analysis of background report data. Third, these issues were considered in the formulation of goals, objectives, and policies which are presented next.

Following the presentation of all subject area material, the countywide land use plan is presented in map form. The land use plan is followed by a section addressing plan implementation which, in turn, is followed by an environmental impact report of the General Plan as required by the California Environmental Quality Act. The plan's seven appendices contain the County's adopted Growth Management Policy; a glossary of terms used in the General Plan; a list of General Plan background reports; a compilation of selected references; a subject listing of the plan's goals, objectives, and policies; the Monterey County Housing Plan Program Summary; and comments and responses on the draft and revised draft EIRs.

TABLE 1
RELATIONSHIP BETWEEN COUNTY GENERAL PLAN COMPONENTS AND STATE ELEMENTS

FIGURE 1
Planning Areas

RELATIONSHIP OF THIS GENERAL PLAN TO OTHER COUNTY PLANS

This General Plan will supersede the previously adopted Monterey County General Plan, its elements and sectional plans with the exception of the Growth Management Policy and the County's Local Coastal Plans (LCPs). The LCPs and the General Plan clearly overlap but each addresses some issues which the other does not. For example, the LCPs include policies concerning diking, dredging, filling, and shoreline structures, while the General Plan does not. Conversely, the General Plan addresses noise and safety, while the LCPs do not. Therefore, neither would satisfy all the requirements of the other. As a general rule, the General Plan will incorporate the LCP land use plans and policies for areas within the coastal zone and will supplement them with policies which are required in an adequate General Plan. Where there is a conflict or difference between a policy of the LCP and a goal, objective or policy of the General Plan, the more restrictive will apply, except that this will not be used to change a land use designation.

Additionally, the Monterey County General Plan applies only to the unincorporated parts of the County. Each city is responsible for its own planning and general plan. In some cases, a city's general plan may address areas outside its corporate limits, but until annexation of these areas occurs, the County General Plan policies and land use designations apply. Every reasonable attempt has been made to provide meaningful guidance in areawide issues which transcend local community interests, such as preservation of farmlands, watershed management, and intercity transportation. The General Plan is intended to be sensitive to the cities, surrounding counties, and special districts which affect and are affected by the County's planning and development. Its role is to guide countywide activities so that governmental decisions at all levels are compatible and integrated.

CHAPTER I: NATURAL RESOURCES

In preparing a comprehensive general plan for the County, it is essential to have an understanding of the opportunities and limitations of the areas physical features and natural resources. Natural characteristics shape the setting in which man's physical development takes place. Monterey County's unique combination of natural resources provides considerable opportunities for a broad array of land uses.

The natural resources discussed in this plan can be characterized either as those which are unaffected by man or as those which may be depleted or destroyed through improper management. Geography, climate, and geology, for example, are essentially unchanged by man's activities. The remaining categories of this section--minerals, soils, water, vegetation, wildlife, ocean resources, environmentally sensitive areas, archaeological resources, and energy--may be significantly altered, or even destroyed through misuse.

GEOGRAPHY AND CLIMATE

Among the more prominent features within the County's 3,324 square mile area are the Santa Lucia and Gabilan Mountain Ranges, the Salinas and Carmel Valleys, and 100 miles of California's central coast. Figure 2 shows the locations of these and other major geographic features, including the County's major rivers. Of special note in Figure 2 is the County's shoreline, which has such diverse features as the Elkhorn Slough estuary, the sandy beaches of Monterey and Carmel Bays, and the scenic rocky shores of the Monterey Peninsula and the Big Sur coast.

Geographic location and features exhibit strong influences on the County's climate. The adjoining ocean is responsible for the County's mediterranean climate, characterized by year-round moderate temperatures, short winter rainy seasons, and cool dry summers. The oceans moderating influence decreases further inland with greater extremes of temperature experienced in the inland areas. Inland areas also experience less precipitation than coastal areas; Pacific winter storms are effectively blocked by the Santa Lucia Range, allowing considerably less rain to fall on the Salinas Valley and Gabilan Range than on the coast.

Temperature and precipitation have important implications for the County's two major economic staples, agriculture and tourism. Mild temperatures along the coast allow for pleasant year-round tourist activities and exceptionally long growing seasons for farming. Progressively colder winter temperatures further up the Salinas Valley, however, dictate progressively shorter growing seasons. Rainfall patterns, while allowing predictably dry weather for tourism throughout much of the year, require reservoir and groundwater storage to meet year-round irrigation and other water needs.

GEOLOGY, MINERALS, AND SOILS

The many igneous, metamorphic and sedimentary geologic formations in the County differ greatly in age, hardness, and resistance to weathering. These differences affect the landscape, soil characteristics, drainage patterns, groundwater conditions, location of mineral and petroleum deposits, and geologic hazards. Granite and metamorphic rocks form the Gabilan and Santa Lucia Mountains. They are characterized by steep slopes and complex drainage patterns. The Salinas Valley, although underlain by granite, contains several thousand feet of sediments. The sediments have greater seismic hazards but are the source of productive agricultural soils.

Many of the geologic formations in the County contain useful minerals; and geologic investigations can be of great benefit in efficiently locating and developing mineral deposits. In Monterey County, however, the tremendously complex geology caused by extensive faulting and deformation often makes such investigations difficult and inconclusive. Geologic complexity also limits the size and extent of many deposits. Despite these limitations, more than 20 mineral commodities had been produced economically in the County. Today, mineral

extraction is mainly limited to oil, near San Ardo; dolomite, at Natividad; sand and gravel, at locations throughout the County; and limestone, at Pico Blanco.*

The complexity of the County's geology is reflected in the 25 major soil associations found in the County. These associations represent hundreds of soil series, which have been mapped and analyzed in great detail by the Soil Conservation Service (SCS). The SCS has interpreted the behavior of these soils under various circumstances and their suitability for particular land uses. The soil interpretations most useful for planning and land use decisions are runoff potential; erosion hazard; shrink/ swell behavior; and suitabilities for shallow excavations, sanitary landfills, septic tank absorption fields, roads and streets, dwellings and small commercial buildings, and of course, farming.

Soil interpretations for farmlands have particular importance in Monterey County, which contains over 300,000 acres of productive farmlands. The classifications used for the farmlands inventory, in order of decreasing productivity, are prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance. Prime farmlands occur in scattered acreages throughout the County, but the most extensive acreages occur on the deep, rich soils of the Salinas Valley, sometimes referred to as the "nation's salad bowl." Soil, climate, and a third component, water, combine to help make Monterey County one of the most agriculturally productive areas in the world.

WATER RESOURCES

Abundant supplies of high quality water are essential not only for agriculture, but for nearly every other type of developed land use. To meet these needs the County must rely almost entirely on groundwater, particularly during the long dry season. Fortunately, much of Monterey County is underlain by water-bearing geologic strata called aquifers, making groundwater readily available from wells.

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*Since the Pico Blanco limestone deposit lies entirely within the County's Coastal Zone, the mineral management policies and the land use plan of the Big Sur LCP apply. Once they are certified, all of the County's LCPs will be incorporated into the General Plan.

FIGURE 2
MAJOR GEOGRAPHIC FEATURES

Some of the County's aquifers experience localized overdrafting, a condition where more water is pumped out of an aquifer than is recharged on an average yearly basis. For some aquifers, such as those underlying Prunedale, Lockwood, and the east side of the Salinas Valley, overdrafting is causing a decline in water levels, eventually requiring deeper wells. In other aquifers, such as those underlying the Pajaro-Springfield area and the northern end of the Salinas Valley, overdrafting is causing salt water intrusion. Wells affected by salt water intrusion must either be deepened, in hopes of tapping a separate, deeper aquifer; abandoned and a separate well dug further inland; or the water from an affected well may be mixed with purer water to dilute the salt concentration. In all of these cases, problems will continue for water users unless the groundwater supply is supplemented and the overdrafting halted. The natural recharge of the Salinas Valley and Carmel Valley aquifers are already supplemented by releases from the Nacimiento and San Antonio Reservoirs, and the Los Padres and San Clemente Reservoirs, respectively. Sufficient water resources exist within the County's borders to supply all of the demand for water but the economic problems of storage and distribution persist.

VEGETATION AND WILDLIFE HABITATS

Plants representative of almost all parts of California (except for the highest mountains and driest deserts) are found in Monterey County, with an uncommonly high number of plant species native only to Monterey County and plant species that find either their northern or southern limits here.

Eight major plant communities are found in Monterey County: coastal strand; wetlands, including fresh and saltwater marshes; riparian woodland; grassland; coastal scrub, including coastal sage scrub and north coastal scrub; chaparral, including maritime chaparral; broadleaf evergreen, encompassing evergreen oak forest and woodland; and coniferous forest, including redwood forest, closed cone pine forest, and mixed conifer forest. Many of these plant communities are limited in their range and extent, either by natural conditions or by the influences of man. Four plant communities (coastal strand, wetlands, riparian woodland, and maritime chaparral) are considered severely limited or threatened by man's land use activities.

The County's native vegetation is highly valued for its scenic qualities, recreational opportunities, and its roles in watershed management (stabilizing soil, preventing excess runoff, and maintaining stream banks). Just as important, however, is its role of providing habitat for wildlife. The variety of habitats and the quality and quantity of these habitats for providing food, shelter, and cover are directly responsible for the variety, health and vigor of animal populations. Thus, maintaining continuous, healthy expanses of native vegetation is the most effective means of maintaining valuable wildlife populations.

OCEAN RESOURCES

The abundance of sea life and coastal marine life off the Monterey County coast is directly related to the variety and quality of habitat. The County's coast offers a wide range of habitats, including sandy beaches, rocky shoreline, kelp beds, estuaries, wetlands, and sub-marine canyons.

Like terrestrial wildlife, marine life is threatened most by habitat loss or disruption, primarily on or near the highly productive shoreline. Habitat loss or disruption has occurred largely at the northern end of the County's coast. Here, an area of wetlands that once included the Old Salinas River, Tembladero, Moro Cojo, and Castroville Sloughs and provided important spawning and nursery habitats for many marine species is now limited primarily to Elkhorn Slough. The rest is now filled, drained and channeled to provide land for agriculture and development. Threatening even Elkhorn Slough is sedimentation, caused by excessive erosion from nearby farms and development.

Other potentially disruptive threats to the County's sensitive marine habitats include the discharge or spillage of wastes and hazardous materials, which may originate from a variety of sources. The main sources of concern are wastewater discharge, toxic agricultural drainage water from the San Joaquin Valley and other agricultural areas, and activities associated with the development and transport of oil and gas. Of these main sources, wastewater discharge is most directly under the County's purview and control. While wastewater is generally thought of as treated municipal sewage, it can potentially include any number of toxic and/or hazardous materials from industrial processes and other sources.

ENVIRONMENTALLY SENSITIVE AREAS

Many areas in Monterey County contain natural resources which are particularly sensitive to man's land use activities and thus deserve special attention for their protection. In most of these areas, the County is the only entity capable of providing the needed protection; in other instances, preservation efforts by other organizations can be bolstered by the County's cooperation.

The 100 rare and endangered plant species scattered throughout the County, for example, receive no formal protection from other agencies. On the other hand, endangered, threatened, or rare animal species are afforded protection by the California Department of Fish and Game, but can still benefit from appropriate land use controls by the County. Even the State Water Resources Control Board's program of protecting outstanding coastal marine habitats can benefit from appropriate land use controls.

Archaeological resources are also sensitive to man's activities, but identification of archaeological sites is much more limited than for natural areas. While over 1000 archaeological sites have been identified in Monterey County, less than five percent of the

County has been surveyed by archaeologists. Data obtained from these surveys, however, are useful in determining other areas likely to contain archaeological resources. This extrapolation of data can then be used by planners to identify areas where an archaeological survey may be required before development can occur.

ENERGY RESOURCES

Nearly all of the supplemental energy used in Monterey County is non-renewable petroleum and natural gas. While the San Ardo oil fields distinguish Monterey County as a major energy producer in California, the County is not self-sufficient in energy production. The citizens of Monterey County are at the mercy of statewide and even worldwide trends affecting this supply, such as dwindling reserves, price increases, and supply interruptions.

To offset these trends, the County must reduce its reliance on conventional energy resources. This can be accomplished through energy conservation and the development of local, renewable energy resources. Those resources with the greatest potential in Monterey County include solar, wind, hydroelectric, and biomass conversion. It is unlikely that these resources can totally replace the use of non-renewable energy, but their use plus intensive energy conservation can significantly reduce the costs of energy, help stabilize energy supplies, and extend fossil fuel reserves further into the future.

ISSUES FOR NATURAL RESOURCES

1. One of Monterey County's premier assets is its vast land area devoted to open space land uses. How can this open space be used to conserve the County's natural resources and enhance its scenic qualities?

2. Extraction of known mineral deposits can be hindered or precluded by encroachment of incompatible land uses; the California Division of Mines and Geology hopes to prevent this through a statewide program of classifying and designating mineral lands. What role should the County play in this issue?

3. Considerable development pressure exists to convert valuable agricultural lands to urban uses, particularly around Salinas.

4. Soil erosion is particularly severe on cultivated lands having slopes above ten percent, except where meticulous soil management measures are taken. The most prominent examples of this problem exist in the strawberry fields of North County and on the hillside vineyards of the Salinas and Carmel Valleys. How can better soil management techniques be encouraged or required where erosion is a problem?

5. Soil erosion in Monterey County has caused inundation of lands with mud and water, siltation problems in waterways (such as the Carmel and Pajaro Rivers, Laguna Grande, and Elkhorn Slough), and loss of topsoil which has rendered some lands sterile for vegetation.

6. Slope is a particularly useful factor for determining land use suitability, but these determinations are hindered by the lack of a detailed, countywide slope map.

7. Chronic water shortages are occurring in many areas of the County, with groundwater overdrafting making up the difference between demand and net supply. Acute water shortages are likely to occur in still other areas during drought years.

8. Several means are available to increase the effective supply of water in deficient areas, including importing water from outside the County, building new canals or pipelines to redistribute water, enlarging existing reservoirs or creating new ones, tapping new aquifers, and water reclamation and conservation.

9. Encroachment of urban and agricultural land uses is providing the greatest threat to natural vegetation, particularly the coastal strand, wetland, riparian, and maritime chaparral plant communities.

10. A critical influence on fish and wildlife in the County is elimination or degradation of habitat.

11. Coastal wetlands provide important spawning and nursery habitats for many marine species; the degradation of wetlands such as the Old Salinas River and the Tembladero,

Moro Cojo, and Castroville Sloughs has had corresponding negative impacts on coastal marine life.

12. The greatest potential for damage to Monterey County's marine environment is from oil spills, whether from offshore drilling, shipping, or underwater pipelines.

13. While there are several programs which identify natural areas, as well as rare and endangered plants and animals, few of these environmentally sensitive areas and species have actually achieved protective status in Monterey County.

14. Many archaeological resources have been destroyed or altered through development. This destruction is partially a result of the limited land area surveyed by archaeologists in Monterey County.

15. The greatest potential for reducing energy costs is through energy conservation. As prices for gas and electricity continue to increase, the development of renewable energy resources, such as solar, biomass, wind, and hydropower, becomes more feasible.

16. The quality of Monterey 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.

GOALS, OBJECTIVES, AND POLICIES FOR NATURAL RESOURCES

OPEN SPACE CONSERVATION

1 GOAL

TO RETAIN THE CHARACTER AND NATURAL BEAUTY OF MONTEREY COUNTY BY THE PRESERVATION, CONSERVATION, AND MAINTENANCE OF OPEN SPACE WITHIN CONSTITUTIONAL CONSTRAINTS.

Objective

1.1 Designate open space where its use will preserve, conserve, and maintain the natural resources and physical features of Monterey County.

Policies

1.1.1 Open space land use designations shall be used, as needed for compliance with the goals, objectives, and policies of this Plan.

1.1.2 Open space land use designations shall be used as needed to preserve the physical and natural features contributing to the County's outstanding natural beauty.

1.1.3 Landowners shall be encouraged voluntarily to restrict the development potential of property through grants of conservation easements, Williamson Act contracts, or other appropriate protections in areas designated for open space uses such as agriculture and resource conservation.

GEOLOGY, MINERALS, AND SOILS

2 GOAL

TO PROVIDE FOR THE CONSERVATION, UTILIZATION, AND DEVELOPMENT OF THE COUNTY'S MINERAL RESOURCES IN KEEPING WITH SOUND CONSERVATION PRACTICES AND TECHNIQUES.

Objective

2.1 Protect potentially significant mineral deposits and mining operations from encroachment by incompatible land uses, in accordance with established land use priorities.

Policies

2.1.1 The County shall work in conjunction with the State Division of Mines and Geology to inventory lands containing valuable mineral deposits and identify on- and off-site land uses that would be incompatible with mineral extraction activities.

2.1.2 The County shall designate land use categories which will protect potentially significant mineral deposits from land uses which would permanently preclude mineral extraction.

Objective

2.2 Protect existing mining operations, including idle and reserve properties from encroachment by incompatible land uses, in accordance with established land use priorities.

Policies

2.2.1 Existing mining operations shall be inventoried and off-site incompatible land uses identified.

2.2.2 The County shall designate land use categories which will protect existing mining operations from incompatible land uses.

Objective

2.3 Provide for mineral extraction in keeping with sound conservation practices and for the reclamation of the extraction site to a condition consistent with the surrounding natural landscape and environmental setting.

Policies

2.3.1 A mining and reclamation plan shall be required for all proposed mineral extraction operations.

2.3.2 Mining operators shall be required to furnish the County with all information needed to make an environmental assessment of the proposed mineral extraction operation.

Objective

2.4 Support efforts to conserve raw mineral resources through recycling.

3 GOAL

TO PROMOTE THE CONSERVATION OF SOILS AS A VALUABLE NATURAL RESOURCE.

Objective

3.1 Establish procedures for the prevention of soil erosion and the repairing of erosion damage in critical areas on both public and private lands.

Policies

3.1.1 Erosion control procedures shall be established and enforced for all private and public construction and grading projects.

3.1.2 The County shall support and encourage existing special district, state, and federal soil conservation and restoration programs within its borders.

3.1.3 In the absence of more detailed site specific studies, determinations of soil suitability for particular land uses shall be made according to the Soil Conservation Service's Soil Survey of Monterey County.

Objective

3.2 The prevailing slope of the land shall be used as an additional criterion in evaluating land use activities.

Policies

3.2.1 A slope map shall be produced to identify areas in the County where slope poses severe constraints for particular land uses.

3.2.2 Lands having a prevailing slope above 30% shall require adequate special erosion control and construction techniques.

3.2.3 Lands having a high erosion potential as identified in the Soil Survey shall require adequate erosion control methods for agricultural uses.

3.2.4 Except in areas designated as medium or high density residential or in areas designated as commercial or industrial where residential use may be allowed, the following formula shall be used in the calculation of maximum possible residential density for individual parcels based upon slope:

- Those portions of parcels with cross-slope of between zero and 19.9 percent shall be assigned 1 building site per each 1 acre.
- Those portions of parcels with a cross-slope of between 20 and 29.9 percent shall be assigned 1 building site per each 2 acres.
- Those portions of parcels with a cross-slope of 30 percent or greater shall be assigned zero building sites.
- The density for a particular parcel shall be computed by determining the cross-slope of the various portions of the parcel applying the assigned densities listed above according to the percent of cross-slope and by adding the densities derived from this process. The maximum density derived by the procedure shall be used as one of the factors in final determination of the actual density that shall be allowed on a parcel.

  Where an entire parcel would not be developable because of plan policies, an extremely low density of development should be allowed.

4 GOAL

TO PRESERVE AND ENHANCE ALL VIABLE AGRICULTURAL LANDS.

Objective

4.1 Identify the extent and locations of important agricultural lands in the County and devise regulations and techniques which will be effective in preserving and enhancing these lands.

Policies

4.1.1 The Important Farmlands Inventory, developed by the USDA Soil Conservation Service and the California Department of Conservation and accepted by various County agencies, shall be used to identify important agricultural lands in the County.

4.1.2 The County shall establish agricultural zoning districts on prime farmlands, farmlands of statewide importance, unique farmlands, and farmlands of local importance.

4.1.3 All farmlands designated as prime, of statewide importance, unique, or of local importance shall be protected from incompatible uses on adjacent lands.

Objective

4.2 Identify agricultural lands which are used for grazing and related purposes and preserve and enhance this agricultural resource in Monterey County.

Policy

4.2.1 The County shall establish agricultural zoning districts for grazing and related purposes.

WATER RESOURCES

5 GOALS

TO CONSERVE AND ENHANCE THE WATER SUPPLIES IN THE COUNTY AND ADEQUATELY PLAN FOR THE DEVELOPMENT AND PROTECTION OF THESE RESOURCES AND THEIR RELATED RESOURCES FOR FUTURE GENERATIONS.

Objective

5.1 Protect and preserve watersheds and recharge areas, particularly those critical for the replenishment of reservoirs and aquifers.

Policies

5.1.1 Vegetation and soil shall be managed to protect critical watershed areas.

5.1.2 Land use and development shall be accomplished in a manner to minimize runoff and maintain groundwater recharge in vital water resource areas.

Objective

5.2 Preserve vegetation where necessary to protect water ways from bank erosion and siltation.

Policies

5.2.1 Owners of property adjacent to waterways or responsible agencies shall be encouraged to maintain healthy vegetation along the drainage course, or provide other suitable means of preventing bank erosion or siltation.

5.2.2 The County shall establish special procedures for land use, building locations, grading operations, and vegetation removal adjacent to all waterways and significant water features.

Objective

5.3 Promote the use of public water reservoirs for multiple purposes, where appropriate, i.e., water conservation, flood control, recreation, and hydroelectric generation.

6 GOAL

TO PROMOTE ADEQUATE, REPLENISHABLE WATER SUPPLIES OF SUIT ABLE QUALITY TO MEET THE COUNTY'S VARIOUS NEEDS.

Objective

6.1 Eliminate long-term groundwater overdrafting in the County as soon as practicably possible.

Policies

6.1.1 Increased uses of groundwater shall be carefully managed, especially in areas known to have ground water overdrafting.

6.1.2 Water conservation measures for all types of land uses shall be encouraged.

Objective

6.2 Explore and implement measures to supply additional water to critically deficient areas.

Policy

6.2.1 The County shall pursue development of suitable water supplies in keeping with broad conservation goals.

VEGETATION AND WILDLIFE HABITATS

7 GOAL

TO PRESERVE THE DIVERSITY AND CONSERVE THE EXTENT OF THE COUNTY'S NATIVE VEGETATION.

Objective

7.1 Inventory, as feasible, the extent and acreages of the County's most threatened or limited plant communities, including coastal strand, wetland, riparian, and maritime chaparral; and promote conservation of these communities.

Policies

7.1.1 Development shall be carefully planned in, or adjacent to, areas containing limited or threatened plant communities, and shall provide for the conservation and maintenance of the plant communities.

7.1.2 The County shall encourage the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means.

Objective

7.2 Encourage the use of drought-resistant plants for landscaping, particularly in water deficient areas.

Policies

7.2.1 Landowners and developers shall be encouraged to preserve the integrity of existing terrain and natural vegetation in visually sensitive areas such as hillsides and ridges.

7.2.2 Native and native compatible species, especially drought resistant species, shall be utilized to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits.

8 GOAL

TO ENCOURAGE THE CONSERVATION OF FORESTS AND WOODED AREAS AS ESSENTIAL ECONOMIC, NATURAL, AND AESTHETIC RESOURCES.

Objective

8.1 Continue a countywide coordinating process for harvesting commercially valuable timber (as defined by the California Department of Forestry), which shall include filing of a timber harvest plan, approval by the California Department of Forestry, and environmental review by the County and other appropriate agencies.

Policies

8.1.1 The timber harvest plan shall provide for selective, sustained yield harvesting and reforestation, as appropriate. Such plans may provide the opportunity for conjunctive use of timber land for public recreation.

8.1.2 All commercial harvesting of trees shall be in keeping with the resource protection goals, objectives, and policies of this General Plan.

8.1.3 Commercial timber harvesting in the County shall be in compliance with all applicable state and federal laws.

8.1.4 Small-scale milling operations shall be permitted subject to compatibility with resource protection policies and the peace of adjacent residences.

Objective

8.2 Encourage conservation of native trees as a component for attaining broad conservation and open space goals.

9 GOAL

TO CONSERVE THE ABUNDANCE AND DIVERSITY OF THE COUNTY'S WILDLIFE.

Objective

9.1 Promote the conservation of large, continuous expanses of native vegetation as the most suitable habitat for maintaining abundant and diverse wildlife.

Policies

9.1.1 Development shall be carefully planned in areas known to have particular value for wildlife and, where allowed, shall be located so that the reasonable value of the habitat for wildlife is maintained.

9.1.2 Development shall be carefully planned in areas having high value for fish and wildlife reproduction.

Objective

9.2 Assure quality freshwater habitats through cooperation with the California Department of Fish and Game and other public and private conservation organizations.

Policies

9.2.1 Land use practices which could result in siltation and pollution of inland and marine waters shall be carefully managed in order to assure a clean and productive habitat.

9.2.2 Projects that modify or otherwise impact inland waters and waterways shall be referred to appropriate agencies for review, recommendations, and appropriate conditional permits.

Objective

9.3 Provide for scientific, educational, commercial, and recreational uses of fish and wildlife, where appropriate.

OCEAN RESOURCES

10 GOAL

TO PROTECT AND CONSERVE THE QUALITY OF THE OCEAN AND MARINE ENVIRONMENTS AND TO PROVIDE FOR REASONABLE DEVELOPMENT OF MARINE-RELATED ACTIVITIES.

Objective

10.1 Promote protection of the native plant and animal communities of the Pacific Ocean along the coast of Monterey County.

Policies

10.1.1 The California Department of Fish and Game shall be consulted and appropriate measures taken to control direct and indirect discharges of harmful substances into marine waters.

10.1.2 Special restrictions shall be placed on activities that adversely affect the County's remaining estuaries, salt marshes, sloughs, and river and stream mouth areas.

10.1.3 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 studies:

a) 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

b) Provide comprehensive projections of the proposed wastewater discharges; both quantitative and qualitative characteristics must be specifically identified. Specific figures for the indicators identified in a) must be included in the projections.

c) Provide complete information on levels of treatment proposed at the treatment facility to remove those indicators mentioned in a). This information shall also include reliability and efficiency date of the proposed treatment.

d) Provide a comprehensive monitoring plan for testing of wastewater for indicators identified in a).

e) Perform oceanographic studies to determine the most suitable location and methods for discharge into the ocean.

f) 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.

g) 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.

h) 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 a) through h) 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.

Objective

10.2 Encourage the development of marine-related industries which will not degrade the ocean environment or upset the natural balance of native plant and animal communities.

Policies

10.2.1 The County shall allow for reasonable development of those harbor facilities for commercial fishing and recreational boating which are compatible with over all conservation policies, particularly those relating to preservation of wetlands.

10.2.2 The County shall encourage the further growth and development of aquaculture as an economic, research, and educational activity in the coastal zone, consistent with overall conservation policies.

10.2.3 The County shall oppose all offshore oil drilling and related activities off the California coast, where it can be shown these activities pose significant or potential hazards to the marine and coastal environments, resources, or air quality.

Objective

10.3 Protect the inherent aesthetic quality, historic appeal, natural equilibrium, recreational, and fishery potential of the County's shoreline.

Policies

10.3.1 Public access shall be provided to the shoreline, in accordance with state-approved Local Coastal Programs.

10.3.2 The natural shoreline processes, including bluff erosion, sand transport, and tidal flushing, shall not be adversely altered by dredging, filling, or construction of shoreline structures.

Objective

10.4 Encourage oceanographic research in Monterey County.

ENVIRONMENTALLY SENSITIVE AREAS

11 GOAL

TO CONSERVE NATURAL HABITATS FOR NATIVE PLANT AND ANIMAL SPECIES AND TO PROMOTE PRESERVATION OF RARE AND ENDANGERED PLANT AND ANIMAL SPECIES.

Objective

11.1 Establish protective measures for areas of particular environmental sensitivity or concern.

Policies

11.1.1 The California Native Plant Society shall be consulted and appropriate measures shall be taken to protect rare and endangered plant species and their habitats.

11.1.2 The California Department of Fish and Game shall be consulted and appropriate measures shall be taken to protect Areas of Special Biological Importance.

11.1.3 Land uses shall be carefully controlled and waste discharges shall be prohibited in order to protect water quality in state designated Areas of Special Biological Significance.

11.1.4 The outstanding features of natural areas identified by the California Natural Areas Coordinating Council and the Department of the Interior's Heritage Conservation and Recreation Service shall be care fully managed.

11.1.5 The County shall support efforts to obtain and preserve natural areas of particular biologic, scientific, or educational interest and restrict incompatible uses from encroaching upon them.

Objective

11.2 Maintain and regularly update information regarding areas of particular environmental sensitivity or concern, and coordinate these efforts with the appropriate resource agencies.

ARCHAEOLOGICAL RESOURCES

12 GOAL

TO ENCOURAGE THE CONSERVATION AND IDENTIFICATION OF THE COUNTY'S ARCHAEOLOGICAL RESOURCES.

Objective

12.1 Identify and conserve important representative and unique archaeological sites and features.

Policies

12.1.1 The County shall take such action as necessary to compile information on the location and significance of its archaeological resources so this information may be incorporated into the environmental or development review process.

12.1.2 The Archaeological Sensitivity Zones map shall be used, along with whatever other data is appropriate, to evaluate whether archaeological resources are threatened by proposed development projects. The map shall be updated continuously as new data becomes available and shall have an appropriate review in five years (January 1, 1987).

12.1.3 All proposed development, including land divisions, within high sensitivity zones shall require an archaeological field inspection prior to project approval.

12.1.4 All major projects (i.e., 2.5 acres or more) that are proposed for moderate sensitivity zones, including land divisions, shall require an archaeological field inspection prior to project approval.

12.1.5 Projects proposed for low sensitivity zones shall not be required to have an archaeological survey taken unless specific additional information has been obtained to suggest that archaeological resources are present.

12.1.6 Where development could adversely affect archaeological resources, reasonable mitigation procedures shall be required prior to project approval.

12.1.7 All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, consideration of reasonable project alternatives, etc., shall be explored to avoid development on sensitive archaeological sites.

Objective

12.2 Encourage various historical and educational societies or other appropriate organizations in their efforts to improve the public's recognition of its cultural heritage and the citizen's responsibilities for archaeological or cultural resource preservation.

ENERGY RESOURCES

13 GOAL

TO PROMOTE EFFICIENT ENERGY USE.

Objective

13.1 Achieve energy savings through implementation of the Monterey County Energy Conservation Implementation Plan (September 30, 1980).

Objective

13.2 Incorporate energy efficiency into land use planning.

Policies

13.2.1 Intensive development shall be encouraged toward existing urban areas where energy expended for transportation and provision of services can be minimized.

13.2.2 Areas of urban concentration shall provide, where possible, convenient access for employment, commercial, and other activities.

Objective

13.3 Incorporate energy efficiency into the design and location of development projects.

Policies

13.3.1 Lots shall be oriented so structures may maximize the energy gains from solar sources and minimize energy losses where possible.

13.3.2 Cluster development, at the same density, shall be favored over more scattered development on a given parcel of land, if such development can be shown to conserve energy.

13.3.3 Plans for major projects shall address opportunities for reducing energy used for transportation, including pedestrian and bicycle pathways, access to transit, and roadway design.

Objective

13.4 Incorporate energy efficiency into new buildings and encourage existing buildings to be retrofitted where feasible.

Policies

13.4.1 Cost-effective weatherization of existing buildings shall be encouraged by the County.

13.4.2 All new residential dwellings shall be required to meet or exceed the building efficiency standards established by the State of California.

13.4.3 Building designs which reduce demands for artificial heating, cooling, ventilation, and lighting shall be encouraged.

14 GOAL

TO ENCOURAGE DEVELOPMENT OF RENEWABLE ENERGY RESOURCES.

Objective

14.1 Review County policies and regulations to determine which ones may create administrative obstacles to the use of renewable energy resources and make appropriate revision.

Policies

14.1.1 Access to direct sunlight shall be protected for solar collectors or probable collector locations, as authorized in the California Solar Rights and Shade Control Acts of 1978.

14.1.2 In anticipation of the increased use of solar and wind energy and associated technological innova tions, the County shall establish procedures and guidelines to regulate their appropriate use.

Objective

14.2 Encourage, where appropriate, the use of solar and other renewable resources for residential, commercial, industrial, and public building applications.

Policy

14.2.1 Solar heating shall be required as the primary source for heat in all new swimming pools where it is proven most cost-effective.

Objective

14.3 Investigate the potential for solar, wind, and other non-conventional energy resource development throughout the County.

CHAPTER II: ENVIRONMENTAL CONSTRAINTS

The environmental constraints analysis identifies conditions and hazards that threaten people and property. The analysis identifies hazard prone or sensitive areas that may or may not be occupied by people. The term "constraints" implies that because of possible negative effects of development in specific hazardous areas, land uses must be critically analyzed and, where necessary, restricted. Environmental constraints include seismic, geologic, fire, flood, noise, and miscellaneous hazards as well as air and water quality.

SEISMIC HAZARDS

CAUSES AND EFFECTS

Monterey County, like most regions that border the Pacific Ocean, is a region of high seismic activity and, therefore, is subject to destructive earthquakes. Earthquakes are the result of an abrupt release of energy stored in the earth. This energy comes from the forces which cause the continents to change their relative position on the earth surface; this process is called "plate tectonics." According to present theories, the earth's crust is divided into plates which form the continents and the ocean basins. These plates are floating on the earth's molten interior. As these plate units move in response to tectonic forces, earthquakes can occur.

The effects of an earthquake can be catastrophic, both physically and psychologically--loss of life, property, as well as our very association with the earth as the emblem of solidity. An earthquake can destroy the natural and man-made environment; in a matter of seconds, hillsides may be leveled, whole towns may be razed, and lives lost.

TYPES OF HAZARDS

Earthquakes can cause two types of hazards: primary and secondary. Primary seismic hazards include ground shaking and ground displacement. Primary hazards can in turn induce secondary hazards. These include ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, seismic-induced water waves (tsunamis and seiches), and dam failure.

MONTEREY COUNTY SEISMIC HISTORY AND SETTING

Monterey County lies within a region of high seismic activity. This activity takes the form of frequent medium earthquakes with nearby epicenters, as well as infrequent major earthquakes.

In the period 1838-1981, over 40 earthquakes occurred which affected Monterey County; the 1906 San Francisco Earthquake, centered on the San Andreas Fault, was by far the most destructive. Although most of the damage felt locally from that earthquake was centered around the Salinas area, damage did occur as far south as King City. Because of increased population, future earthquakes along this fault could have greater impacts.

The San Andreas Fault zone poses the single greatest seismic hazard to the County; ground rupture along this fault could be severe and ground shaking could be intense. Its maximum predicted earthquake magnitude is 8.5 on the Richter scale with a recurrence interval of 50-200 years. A portion of the San Andreas Fault runs through the southeastern portion of the County for approximately 30 miles. The potential for ground rupture is considerable.

Ground rupture could also occur along the other two active faults affecting Monterey County--the Palo Colorado-San Gregorio Fault zone and the Monterey Bay Fault zone. The Palo Colorado-San Gregorio Fault zone connects the Palo Colorado Fault near Pt. Sur, south of

Monterey, with the San Gregorio Fault near Pt. Ano Nuevo in Santa Cruz County. The estimated maximum seismic magnitude of this fault is 7.5 on the Richter scale with a recurrence interval of 10-100 years. In addition to inland hazards generated by ground rupture or ground shaking, this fault could produce hazardous tsunamis.

Another potential source of tsunami hazard in Monterey County is the submarine Monterey Bay Fault zone. This active fault lies seaward of the City of Seaside extending northwesterly to the Pacific Ocean. The maximum seismic magnitude generated by this fault is estimated to be greater than 6.5 on the Richter Scale with a recurrence interval of 10-100 years. Figure 3 indicates the location of the above mentioned active faults, as well as lesser active faults within Monterey County.

The presence of these faults subjects Monterey County to a variety of primary and secondary seismic hazards. Ground rupture is a potential hazard along any of the faults, but is most probable along the three active faults.

Ground shaking is most severe in the unconsolidated alluvial areas of the County; these areas include the Salinas, Carmel and other valleys, and a large portion of North County. Similarly, liquefaction is most probable and most severe in unconsolidated alluvium where the water table is high. Within Monterey County, the land near the Elkhorn and other sloughs, and rivers is most susceptible to liquefaction.

As mentioned earlier, portions of the County's coastline are susceptible to damaging tsunamis. Figure 3 indicates which coastal areas face the greatest danger--predominately these are the lower beaches where wave run-up can take place. While tsunamis may be generated by local faulting, it is most probable that tsunamis affecting the County would originate either off the coast of Chile or the Aleutian Islands.

In addition to tsunami hazards, other secondary seismic hazards affect Monterey County. These include seiches, structural hazards, and dam failure. Most notable of these hazards is dam failure. Structural dam failure may occur in two ways: first, damage to the embankment itself; and second, by actual alteration of the foundation by settlement. In Monterey County, the Salinas and Carmel River Valleys face the greatest risk from dam failure. In the Salinas Valley a break in either of the county-owned dams (Nacimiento or San Antonio) would generate a flood of major proportions. Further, dam failure of either the Los Padres or San Clemente Dam would subject hundreds of people in Carmel Valley to loss of property and possibly loss of life.

The risk from seiches and building/structural failure is fairly minimal in the County. Little information exists on seiche potential in Monterey County. Risk from seiches and resulting structural failures are relatively low in the unincorporated County. In the incorporated cities within the County, however, structural risks are much greater.

SEISMIC INDEX
FIGURE 3

OTHER GEOLOGIC HAZARDS

In addition to the hazards from seismic activity, Monterey County is susceptible to hazards from natural geologic processes and conditions. The County's varied landforms--rugged mountains, river-cut valleys, and wetlands--are subject to landsliding, erosion, and subsidence. Landsliding and erosion are natural geologic processes which work toward bringing the topography into a stable state. Landsliding is common throughout the County's Coastal Range, especially during the winter months when the ground is saturated. Most of the slides in the County occur in severely fractured areas along fault zones; slides occur in every formation, but are most common in sedimentary formations. Studies by the United States Geological Survey in neighboring counties have determined that landslides appear most frequently on slopes over 15%. Erosion would also be greatest where slopes are steep and the soil is unconsolidated.

The lack of a county soils management program has resulted in erosion problems for several areas of Monterey County. In general, the severe erosion problems in the County are caused by incompatible urban and agricultural land uses on loose, sandy soils. Figure 4 analyzes slope stability for Monterey County. While this information presents a useful beginning, additional information is necessary to adequately locate unstable slopes within the County.

Subsidence, on the other hand, usually occurs on level land where overdrafting of an underground aquifer has taken place. This results in a general lowering of the ground surface. Overdrafting of groundwater in North County has taken place over an extended time; however, because of saltwater intrusion, no subsidence has occurred. Subsidence is not a critical hazard in the County.

PLANNING IMPLICATIONS

Collectively evaluating the seismic and geologic constraints to development allows the County to make rational and safe decisions regarding growth. Figure 5 shows areas of potential seismic and geologic hazards. In areas of high hazard, additional site-specific information is needed or development may need to be banned altogether. Areas of low seismic and geologic hazard offer greater potential for, and less risk to, development.

While no major earthquakes have affected the County since 1906, the pressure to develop areas subject to seismic and geologic hazards will continue to increase. Future land use decisions must be based on the capability of the land to safely accommodate the impacts of proposed land uses. Failure to do so would result in unnecessary human suffering and loss of property.

FIGURE 4
LANDSLIDE & EROSION SUSCEPTIBILITY

FIGURE 5
POTENTIAL SEISMIC AND GEOLOGIC HAZARDS

ISSUES FOR SEISMIC AND OTHER GEOLOGIC HAZARDS

1. Much of the County is subject to the effects of seismic and geologic forces. What precautions should the County institute to ensure human safety?

2. Additional countywide technical information is necessary to adequately locate and quantify slope stability, liquefaction, and tsunami hazards.

3. Many older structures lack the structural integrity to withstand seismic forces. Also, those critical structures such as schools, hospitals, and other public buildings which are unsound, pose severe hazards for their inhabitants during a major earthquake. Should the County undertake an inventory of these structures?

4. How can comprehensive environmental planning and land use restrictions minimize seismic and other geologic hazards?

GOALS, OBJECTIVES, AND POLICIES FOR SEISMIC AND OTHER GEOLOGIC HAZARDS

15 GOAL

TO MINIMIZE LOSS OF LIFE, INJURY, DAMAGE TO PROPERTY, AND ECONOMIC AND SOCIAL DISLOCATIONS RESULTING FROM SEISMIC AND OTHER GEOLOGIC HAZARDS.

Objective

15.1 Reduce the risks resulting from earthquakes to an acceptable level by regulating the type, density, location, and/or design and construction of development in seismic hazard areas.

Policies

15.1.1 The following areas described in the General Plan should be defined as high hazard areas:

- o zones 1/8 mile each side of active or potentially active faults (Figure 3, page 30);
- o areas of tsunami hazard (Figure 3, page 30);
- o areas on the Potential Seismic and Geologic Hazards Map (Figure 5, page 33) designated as "High Hazard"; and
- o areas designated as Zones IV, V, and VI on the Geotechnical Evaluation maps of the County's 1975 Seismic Safety Element (page 17).

15.1.2 Faults classified as "potentially active" shall be treated the same as "active faults" until geotechnical information demonstrating that a fault is not "active" is accepted by the County.

15.1.3 The lands within 1/8 mile of active or potentially active faults shall be treated as a fault zone until accepted geo-technical investigations indicate otherwise.

15.1.4 All new development and land divisions in designated high hazard zones shall provide a preliminary seismic and geologic hazard report which addresses the potential for surface ruptures, ground shaking, liquefaction, and landsliding before the application is considered complete. This report shall be completed by a registered geologist and conform to the standards of a preliminary report adopted by the County.

15.1.5 A detailed geological report shall be required for all standard subdivisions. In high hazard areas, this report shall be completed by a registered geologist, unless

a waiver is granted, and conform to the standards of a detailed report adopted by the County.

15.1.6 Prior to the construction of a new public facility or critical structure within a high hazard zone, the County shall require a full geological investigation by a registered geologist.

15.1.7 Prior to the issuance of a building or grading permit, the County shall require liquefaction investigations for proposed critical use structures and multi-family dwellings over four units when located in areas of moderate or high hazard for liquefaction or subject to the following conditions:

- o location in primary floodways; and
- o groundwater levels less than 20 feet, as measured in spring and fall.

15.1.8 The County should require a soils report on all building permits and grading permits within areas of known slope instability or where significant potential hazard has been identified.

15.1.9 The County shall require an engineering geology report for all new public reservoirs. This report shall be completed by a registered engineering geologist and shall conform to County standards.

15.1.10 All structures and private utility lines shall be designed and constructed to conform to the standards of the latest adopted Uniform Building Code.

15.1.11 For high hazard areas, the County should condition development permits based on the recommendations of a detailed geological investigation and soils report.

15.1.12 The County shall require grading permits to have an approved site plan which minimizes grading and conforms to the recommendations of a detailed soils or geology investigation where required.

15.1.13 The County shall require septic leachfields and drainage plans to direct runoff and drainage away from unstable slopes.

15.1.14 The County shall require wave action and erosion information to be submitted by a qualified oceano grapher before an application is considered in areas identified as having a tsunami hazard; approval of development shall be conditioned on the recommendations of the oceanographic information.

15.1.15 Side castings from the grading of roads and building pads shall be removed from the site unless they can be distributed on the site so as not to change the natural landform. An exception to this policy will be made for those cases where changes in the natural landform are required as a condition of development approval.

Objective

15.2 Provide for the identification and evaluation of existing structural hazards by 1984.

Policies

15.2.1 The County should define and identify critical structures constructed prior to the adoption of current Uniform Building Code earthquake design requirements and require them to be structurally strengthened or phase out their use.

15.2.2 The County should encourage the State Department of Transportation (CALTRANS) to review its facilities and roadways within the County to assess potential impact of seismic hazards; comments should be forwarded to the County.

15.2.3 The County should encourage all utilities to review their facilities and distribution/transportation networks and centers to determine the potential impact of earthquakes, and to forward this information to the County.

15.2.4 The County should encourage Southern Pacific Railroad Company to review its lines and yards within the County to determine the potential impact of earthquakes, and to forward the information to the County.

15.2.5 The County should encourage utility companies to institute orderly programs of installing cut-off devices on utility lines, starting with the lines that appear to be most vulnerable and those which serve the most people. Adequate emergency water supplies should be established and maintained in areas dependent upon water lines which cross active fault zones.

Objective

15.3 Provide programs to increase public awareness of seismic and other geologic hazards and the means avail able to mitigate these hazards by 1984.

Policies

15.3.1 The County shall develop an information release program to familiarize the citizens of the County with seismic and other geologic hazards in Monterey County.

15.3.2 The County should provide an adequate warning and evacuation system for development located in tsunami hazard areas.

Objective

15.4 Compile and provide information to assist in the disclosure of scientific data for seismic and other geologic hazards by 1984.

Policies

15.4.1 The County should identify areas subject to tsunami hazard and the expected frequency with which they might occur.

15.4.2 The County shall have prepared a comprehensive slope stability map, locating relative stability and suitability for development.

15.4.3 The County should have a liquefaction potential map prepared for alluvial areas that are being urbanized; first priority should be given to Carmel Valley.

15.4.4 The County should have geological expertise available to the staff because of the numerous seismic and other geologic hazards in the County.

15.4.5 The County shall continually update seismic and other geologic information to reflect the most current and accurate information available.

Objective

15.5 Adopt new ordinances and amend existing ordinances and plans to include new and revised seismic safety considerations by 1984.

Policies

15.5.1 The County shall continue to review and may adopt new editions of the Uniform Building Code as appropriate.

15.5.2 The County shall amend the Uniform Building Code as necessary.

15.5.3 The County shall devise standards for preliminary geologic reports, detailed geological reports, and engineering geological reports.

15.5.4 The County shall revise the Zoning and Subdivision Ordinances to reflect seismic safety concerns.

FLOOD HAZARDS

Taken in its most narrow context, "flooding" refers to any body of water exceeding its banks. Historically, such occurrences have been beneficial to wildlife, the general ecological balance, and to agricultural soil. Flooding would have minor impacts on people were it not for the development which has occurred in the County's flood-prone areas. In the unaltered environment, flooding is seldom catastrophic because soil and vegetation in the river's floodplain absorb and check the overflow.

Flooding is caused by surface runoff from the County's mountainous watersheds. Runoff occurs when storms of high intensity and/or long duration exceed the soil's ability to absorb water. Various factors influence rates of storm runoff; the most basic ones are storm intensity and duration, steepness of slope, and permeability of the ground surface. High intensity storms coupled with steep slopes and impermeable surfaces or water-saturated surfaces contribute to increased runoff. The overall effect is a short-term concentration of runoff within a finite area; the result in extreme cases is flooding.

Flooding has primary and secondary effects. Primary effects include the destruction of property, loss of lives, and social dislocation. Secondary effects are caused by standing water and earth movement. Standing water may cover the ground for weeks, causing septic tank and crop failure and planting delays; saturated soils may loose their stability and slide downhill, threatening development.

HISTORY OF FLOODING IN MONTEREY COUNTY

Because the County's development is linked to the flood-prone fertile valleys, flooding has caused repeated destruction. Nine storms have caused major flooding and extensive damage between the years 1911 and 1980. Considerable acreage in the County has flooded. In 1980, floodwater inundated hundreds of acres in the Salinas Valley alone. The Carmel, Pajaro, and Big and Little Sur River Valleys have also experienced damaging flooding. Risk to life and property are especially acute in Carmel Valley where, despite the flood hazard, residential development has taken place in the floodplain. Continued, poorly-sited development in the floodplain will exacerbate the hazard.

FLOOD HAZARDS IN MONTEREY COUNTY

100-Year Floodplain

To aid in safety planning, flood inundation areas are identified by magnitude and recurrent interval. The 100-year flood frequency is the one most commonly used. A 100-year flood is an event which would have a 1% probability of occurring in any given year.

Communities within the Carmel, Salinas, and Pajaro Valleys would be affected by a major 100-year flood. As can be seen from Figure 6, the 100-year floodplain encompasses large areas of the Salinas and Carmel Valleys, Elkhorn Slough, and major tributaries within Monterey County. Agricultural land in the Salinas Valley could expect to be devastated by such a flood. Communities within the shaded portion of the map might expect to incur moderate to extensive damage. This would include portions of King City, Moss Landing, Parkfield, Big Sur, Carmel Valley Village, Salinas, Gonzales, and the Community of Pajaro.

Levee Failure

The principal factors in levee failure in Monterey County are sedimentation and erosion. Levee failure presents risk to life and property. The most serious risk is along the Carmel River where several levees protect urban and urbanizing land. A recent report prepared for the federal government indicates that levees located along the lower Carmel River would be breached in a major flood, jeopardizing residential and commercial structures in that area.

Risk from levee failure is less in the Salinas Valley. Levees along the Salinas River are predominately intended to allow for expanded agricultural cultivation. While these levees are not designed for a 100-year flood, the risk is to agricultural land and not to structures or human life. The levees that do protect structural development along the Salinas River have a good performance record.

Localized Drainage Problems

Areas within the County underlain by hardpan layers, such as clay soils, are a potential hazard. The result is standing water which can create health hazards and/or damage electrical circuits, telephone lines, roads, and structural foundations. Estuaries, marshes, and river basins are especially prone to this condition. Areas such as Carr Flats and Markley Swamp experience ponding even after light rains.

Dam Failure

The risk from dam failure is predominately a secondary seismic risk. The greatest risk from dam failure is in Carmel Valley where failure of either the Los Padres or San Clemente Dam would cause inundation of urbanized areas and alter the riparian corridor.

A dam failure in the Salinas Valley would also be significant. Failure of either the San Antonio or Nacimiento Dams in the Salinas Valley would inundate a larger area than the 100-year flood; however, the risk would predominately be to agricultural land and not to human life.

FLOOD PROTECTION MEASURES AND PROGRAMS

Basically, two approaches to provide flood protection are available: control of the water through structural measures and control through land use regulations.

National Flood Insurance Program

The National Flood Insurance Program is a federal program enabling property owners to buy flood insurance at a reasonable cost. In return, communities carry out local floodplain management measures to protect themselves. Monterey County has taken the initial steps toward compliance with this program with the identification of the floodplain.

Monterey County Flood Protection Measures

To reduce the risk from flooding, Monterey County has taken several steps. First, through the Monterey County Flood Control and Water Conservation District, it is participating in the National Flood Insurance Program. Second, structural measures have been taken to aid in water conservation and flood protection. Third, the County has enacted a floodplain ordinance for Carmel Valley. Fourth, the Flood Control District collects historical hydrologic data for planning purposes and operates an early warning system of rain gauges and stream recorders during flood hazard periods. While the above offer some measure of safety, additional action by the County is needed to provide for an acceptable level of risk from flooding. The adoption and enforcement of the policies which follow and the development of appropriate ordinances will help achieve an acceptable level of risk.

FIGURE 6
100-YEAR FLOOD PLAIN

FIRE HAZARDS

Fire is a constant threat in all parts of the County, but it is especially dangerous outside of the incorporated cities' urban service areas. For that reason, the fire hazards section focuses on the rural or wildland areas of the County.

The major cause of fire in the County is man: human error, illegal campfires, children playing with fire, and arson. Because most fires are started by people, areas of development and areas serviced by public access have the greatest risk of fire.

The ravages of fire have immediate impact upon life and property--loss of life, vegetation, wildlife habitat, and valuable watershed; these are called primary effects. Further, the charred landscape can set in motion other damaging ecological processes and produce human hardships: erosion, mudflows, social dislocation, and permanent relocation. These are the secondary effects.

FIRE HAZARDS IN MONTEREY COUNTY

Monterey County experiences fires from a variety of types: wildland, structural, and chemical. Each is unique in its source of fuel, area of ignition, and degree of hazard. The main source of ignition for each is man.

Wildland Fires

The mountains and wildlands of California are famous for the persistent fire hazard they present. Over half of the land area in Monterey County is mountainous and covered with highly flammable vegetation. As development continues to be directed away from the fertile agricultural valleys of the County and into the brush and tree-covered hills, there will be increasing conflict between man's desire to build up the hills and nature's desire to burn up the hills.

Wildland fires are a natural part of the ecosystem. As such, they are both a beneficial and destructive force. Fire is known to benefit forest ecosystems through the removal of underbrush, establishment of browse for wildlife and domestic animals, and incineration of forest debris.

The destructive force of wildland fire was made exceedingly clear to the residents of Monterey County in 1977 when the Marble Cone Fire in the Big Sur area burned over 177,000 acres. In other parts of the state, development near the wildlands has felt the savage force of wildland fire; the Bel-Air fire in Los Angeles is a notable example. Development near highly flammable vegetation, in rugged terrain with low water pressure and long fire fighting response times makes disaster probable. An understanding of the mechanics of a wildland fire is the first step in hazard reduction.

Forest, brush, and grass fires burn according to a complex set of physical and chemical principles. The California Department of Forestry has adopted these principles into an analytic system for wildland fire hazards--the Fire Hazard Severity Scale for California's Wildlands. Using this system, wildland fire hazards were analyzed and mapped (Figure 7). This map analyzes the three natural factors which affect wildland fire hazards: weather, slope, and fuel loading. Man's presence in any area increases the fire hazard potential.

Structural Fires

Of the 835 fires reported in the unincorporated County in 1979, 21% were structural fires. The principal causes of structural fires are human carelessness, children playing with fire, arson, and structural failure. While human carelessness is not necessarily related to any one community, structural failure is most common in older, poorly maintained areas. In Monterey County, this includes portions of Chualar, Spreckels, San Lucas, Bradley, North County, and Carmel Valley Village.

Chemical Fires

In addition to wildland and structural fires, the unincorporated County is subject to fire hazards from oil and natural gas fields, gasoline storage wells, and flammable chemicals. Chemical fires present a complex fire risk. They may precipitate an explosion, send toxic fumes skyward, or be extinguished and the chemicals washed into groundwater systems. Because of the extreme risk chemicals present, it is imperative that chemical storage locations are made known.

LEVELS OF PROTECTION

The County of Monterey, as allowed by state code, has elected not to provide for fire protection. Through the formation of fire districts and service areas, local communities can develop their own fire protection delivery systems.

This system allows each community to set its own service level based on its ability and willingness to pay for it. This is known as the "benefit principal." Funding for the fire districts and service areas is from service charges and special taxes. By law, these districts are a distinct, separate unit of government from the County. Each adopts its own budget and has its share of the property tax revenue allocated to it. As a consequence of this system, the levels of service within the County vary from no organized fire protection to fully-paid, 24-hour fire protection departments.

FIGURE 7
FIRE HAZARDS

Currently, much of South County lacks any organized fire protection, including the communities of Bradley, Lockwood, and San Lucas, among others. Other areas are served by volunteer fire companies. These companies typically serve small communities which lack the property tax base to effectively establish a paid company. The level of protection is, of course, less than for areas protected by paid staffs. Equipment is usually donated or purchased through community fund-raising events.

Currently, the unincorporated area is serviced by five volunteer companies, twelve fire districts, three county service areas, the Department of Forestry, and by mutual aid agreements with the United States Forest Service and federal military installations. These districts provide year-round service. Outside the fire districts, fire protection is provided by the California Department of Forestry.

The Department of Forestry maintains six fire stations for wildland fire protection and contracts with the County for three stations which provide structural fire protection. Protection from wildland fires is provided in the dry months--during the official fire season, as declared by the state forester. Fire season generally runs from May to November. During the winter months when there is less danger of wildfire, the Department of Forestry responds to fires, but the level of protection is reduced. With only six stations, the Department of Forestry cannot provide uniform ground response protection to all areas of the County. Areas like Cachagua and other remote sectors may require half an hour or greater response times. Some locations in mountainous terrain are virtually inaccessible to fire equipment except by air. Long response time will definitely increase the level of risk.

MISCELLANEOUS HAZARDS

Miscellaneous hazards occur when toxic chemicals (pesticides, herbicides, and fertilizers) and/or dangerous substances (petroleum, natural gas, and radio-active, flammable or explosive materials) are mismanaged or misused. These chemicals and substances, when improperly applied, can cause health and environmental hazards. The leading users of these chemicals and substances generally include agriculture, hospitals, heavy industries, laboratories, and utilities; over 560 firms have been identified as such users in Monterey County.

APPLICATION OF AGRICULTURAL CHEMICALS

As a national leader in agricultural production, Monterey County's farm industry is a heavy user of pesticides and fertilizers. Agricultural pesticides are the modern weapons employed by the farmers in their battle against weeds, fungi, rodents, and insects. Increased use of these chemicals is a product of a steadily expanding population and increased demand for high quality produce. Because of this increased demand for quantity and quality, growers must continue to use pesticides and fertilizers until other methods can be found to maintain high crop yields and competitive prices.

In addition to the improper use of these chemicals posing possible health and environmental hazards, disposal of toxic chemicals is also a major concern. Improper disposal of pesticides or fertilizers can degrade the subsoil, pollute surface and groundwater, and create health hazards to humans and animals.

PRODUCTION AND STORAGE

Production and storage of hazardous materials also pose a special hazard to adjacent properties and ecosystems. These hazards may appear as leaks or spills which would contaminate the air or water, generate fires, or cause explosions.

DISPOSAL AND TRANSPORTATION

Most hazardous material used in the County is trucked in rather than produced locally. In a similar manner, disposal of most hazardous waste occurs outside the County limits; however, some chemical waste is suspected of being disposed of in local waste ponds. This practice could degrade groundwater basins if safety precautions are not employed.

ENFORCEMENT AGENCIES

Protecting the public and the environment from toxic chemicals is the responsibility of federal, state, and local governments. At the federal level, the Environmental Protection Agency (EPA) enforces regulations established by the federal government regarding air and water quality, toxic substances, noise and solid waste management. Also at the federal level, the Occupational Safety and Health Administration (OSHA) is responsible for setting permissible levels of exposure to toxic substances, for enforcing these levels through work place inspections, and for providing education and training concerning the dangers posed by toxic materials.

At the state level, the Department of Food and Agriculture (DFA) has been delegated by EPA as the primary enforcement agency with respect to pesticide use. California, through the efforts of DFA, has been a leader in providing for public safety. At the county level, the County Health Department and the County Agricultural Commissioner's Office are responsible for enforcing federal and state regulations.

EMERGENCY PREPAREDNESS

Safety planning is concerned with the prevention of hazards and the ability to deal with emergencies should they arise. While prevention is the most cost-effective and the least

stressful way to save lives and protect property, the County must also be prepared if disaster should strike. The County must anticipate possible needs and be able to respond to all emergencies to the fullest extent of its resources.

Part of that anticipation requires the evaluation and development of emergency mobility in the County during and following any disaster. Emergency mobility is necessary in order to accomplish both evaluation of a hazard-struck area and to respond to an impacted area with equipment and supplies.

It is the County's responsibility to develop evacuation plans which will readily, and effectively, relocate residents from hazardous areas to locations of greater safety. An integral part of evacuation planning is the identification of evacuation routes (Figure 8). The mandate of the County to protect the public health, safety, and welfare requires that the County assure emergency preparedness through affirmative action. This is addressed through the County's emergency plan.

The County's emergency plan is a comprehensive disaster preparedness program which describes the organizational framework and respective duties of county departments. The intent is to coordinate the workings of the County's separate departments into a cohesive unit in times of emergency.

The emergency plan describes procedures for peacetime and wartime emergencies. Peacetime emergency procedures are divided into three stages: pre-emergency, emergency, and post-emergency.

The pre-emergency stage includes preparation of service support plans, identification of special district and private sector resources, and coordination with counterpart organizations.

The emergency stage is further divided into three sub-phases: emergency possible, emergency expected, and emergency onset. The first sub-phase requires an assessment of conditions and the selection of an appropriate initial response. When the emergency becomes imminent, the second sub-phase is implemented. Under this sub-phase, threatened segments of the population are alerted, needed resources are activated, and mutual aid is requested. If conditions overwhelm local capabilities, the third sub-phase is activated by requesting state aid.

When the state of emergency has ended, the post-emergency stage procedures are implemented. The post-emergency stage has three major objectives: temporary reinstatement of family independence and provision of essential services, permanent restoration of public and private properties, and uncovering of residual hazards. Similar procedures exist for war emergencies.

War emergencies are complex and involve a much larger segment of the population than peacetime emergencies. Direction for action rests with the federal government. The County's emergency plan, in coordination with the federal government, addresses warning conditions and priority actions which in turn address pre- and post-attack actions. These actions include maintenance of fallout shelters, provision of aid to injured parties, and maintenance of law and order. Further information can be obtained from the Monterey County Emergency Plan.

FIGURE 8
EMERGENCY EVACUATION ROUTES

ISSUES FOR FLOOD, FIRE, AND MISCELLANEOUS HAZARDS AND EMERGENCY PREPAREDNESS

1. Agricultural and urban land uses exist in flood hazard areas; to what extent should this practice be continued?

2. The lack of a comprehensive river management plan has contributed to the flood hazard along the Carmel and Pajaro Rivers.

3. Monterey County has a broad range of fire hazards; land use regulations can reduce the hazard from fire.

4. Development does not always include adequate access, water supply, fire-retardant materials, and fuel management for efficient fire protection.

5. Inadequately signed and mapped private roads and driveways create a high fire risk for areas of the County.

6. A comprehensive fuel management program is needed to reduce fire hazards.

7. Water supplies for fire protection are marginal in some developed areas and substandard in others.

8. Hazardous materials are used, stored, and transported throughout the County creating exposure risk. What action should the County take to ensure the public's safety?

9. Is Monterey County prepared to respond to natural disasters and other emergencies in a coordinated, timely fashion? If not, what can be done to improve emergency preparedness within the County?

GOALS, OBJECTIVES, AND POLICIES FOR FLOOD, FIRE, AND MISCELLANEOUS HAZARDS AND EMERGENCY PREPAREDNESS

FLOOD HAZARDS

16 GOAL

TO MINIMIZE THE RISK FROM THE DAMAGING EFFECTS OF FLOODING AND EROSION.

Objective

16.1 Begin preparing management plans for all major river basins; priority should be given to the Salinas, Pajaro, and Carmel River basins. These plans should address flood protection, water quality, riverbank stabilization, wildlife habitat protection, aesthetic considerations, and appropriate land uses.

Policies

16.1.1 The County shall initiate and actively participate in coordinated activities with the Association of Monterey Bay Area Governments, appropriate state offices, and other governmental agencies in developing river management plans.

16.1.2 The County shall pursue federal and state funding for development and implementation of river management plans.

Objective

16.2 Reduce the risk from flooding and erosion to an acceptable level by regulating the location, type, and density of land use.

Policies

16.2.1 The County's primary means of minimizing risk from flood hazards shall be through land use planning and the avoidance of incompatible structural development in flood prone areas.

16.2.2 Open space uses such as agriculture, passive to low intensity recreation, and conservation are considered the most acceptable land uses in the floodplain.

16.2.3 All new development for which a discretionary permit is required, including filling, grading, and construction, shall be prohibited within 200 feet of the

riverbank or within the 100-year floodway except as permitted by ordinance. No new development, including structural flood control projects, shall be allowed within the riparian corridor. However, improvements to existing dikes and levees shall be allowed if riparian vegetation damage can be minimized and at least an equivalent amount and quality of replacement is planted. In addition, exceptions may be made for carefully sited recreational trails.

16.2.4 All new development, including filling, grading, and construction, within designated 100-year floodplain areas shall conform to the guidelines of the National Flood Insurance Program and policies established by the County Board of Supervisors, with the advice of the Monterey County Flood Control and Water Conservation District.

16.2.5 All new development, including filling, grading, and construction, proposed within designated floodplains shall require submission of a written assessment prepared by a qualified hydrologist/engineer on whether the development will significantly contribute to the existing flood hazard. Development shall be conditioned on receiving approval of this assessment by the County Flood Control and Water Conservation District.

16.2.6 Development of new, or expansion of existing, flood control measures to protect individual properties should be permitted only within the framework of an approved management plan and program. With the exception of appropriate emergency measures and until such time that a management plan and program are completed, piecemeal solutions such as alleviating the flood hazard for individual properties shall be permitted only when new studies determine that the existing protective measures are not adequate to provide the level of protection deemed necessary on the basis of the most recent information available. Such individual solutions will be permitted subject to approval by the Monterey County Flood Control and Water Conservation District and also upon obtaining all other necessary permits.

16.2.7 The County should develop and implement a comprehensive storm drainage plan for appropriate areas, as feasible. The plan should describe each drainage basin in detail and set priorities for solving specific problems.

16.2.8 New development in areas adjacent to coastal beaches should be allowed only if a geologic report deter mines that wave action, storm swell, or other potential dangers are not a hazard to the proposed development. Such determination shall be made by a qualified geologist and shall include a review of the County's geotechnical report.

16.2.9 The County should condition all modifications to living riparian vegetation to be in conformance with an overall approved river management plan. Where no such plan exists, modification may only take place when in accord with an approved landscape plan prepared by a licensed landscape architect or other qualified professional.

16.2.10 The County shall ensure that adequate emergency water supplies are established and maintained in areas dependent upon water lines which cross the floodplain.

Objective

16.3 Reduce the risk from flooding by increasing public awareness of flood hazards.

Policies

16.3.1 Information should be made available to property owners and residents living in floodplains and coastal inundation areas to encourage participation in the Federal Flood Insurance Program.

16.3.2 A procedure to notify potential buyers of property located in the floodplain shall be developed. The County should require a notice to be recorded, that would be revealed on title search, stating the property is located in a floodplain and is subject to building and/or use restriction.

Objective

16.4 Identify existing and potential erosion hazards, and prepare and implement plans to control the amount of erosion and siltation.

Policies

16.4.1 The County shall adopt and enforce a comprehensive erosion control ordinance.

16.4.2 The County should establish an active erosion control education program for the general public and building and agricultural trades in cooperation with the Resource Conservation Districts and the Soil Conservation Service.

FIRE HAZARDS

17 GOAL

TO MINIMIZE THE RISKS FROM FIRE.

Objective

17.1 Reduce the risks from fire hazards by encouraging public education programs on fire hazards and citizen responsibility in preventing fires.

Policies

17.1.1 The County should encourage fire protection agencies to provide communities they serve with printed material on local fire hazards and how each community can be protected. This information should be continually available at the local fire station, local library, and other convenient locations.

17.1.2 The County shall encourage educational programs on fire safety by school districts in cooperation with fire protection agencies.

17.1.3 The County shall encourage the inclusion of all fire protection agencies in the 911 countywide telephone emergency system.

Objective

17.2 Provide for more detailed scientific analysis of fire hazards in the County by 1984.

Policies

17.2.1 The wildland fire hazard map should be updated periodically as more precise information becomes available.

17.2.2 Structural fire risks within urban service areas shall be generally identified on a map in cooperation with fire officials; this map shall be updated periodically.

17.2.3 The County shall develop a procedure to inform potential developers of the requirements for development in high and very high fire hazard areas. This information should be made available through the County Building Inspector.

Objective

17.3 Reduce fire hazards to an acceptable level of risk by prescribing the use, location, type, and design of roadways.

Policies

17.3.1 In no case shall a roadway be less than 12-feet wide. Determination of the width of an all-weather surface shall be made at the time of subdivision approval. Further, the County shall revise its subdivision ordinance to address road standards including minimum width, height clearance, gradient and materials; these standards shall pertain to all new development. Minimum road widths of all new driveways, roads and streets shall be designed, constructed and maintained according to adopted County Standards (Appendix D: Standard Detail, 1977).

17.3.2 The County shall require the creation of road maintenance agreements for all new private subdivision roads.

17.3.3 The County shall encourage all new development to be located within the response time of 15 minutes from the fire station responsible for serving the parcel. If this is not possible, on-site fire protection systems (such as fire breaks, fire-retardant building materials, and/or water storage tanks) approved by the fire jurisdiction must be installed or development may only take place at the lowest density allowed for the parcel by the General Plan.

17.3.4 The County shall require all new development to have adequate water available for fire suppression. Water availability can be provided from a conventional water system; from an approved alternative water system if within 300 feet of a habitable structure; by the fire fighting equipment of the fire district within which the property is located; or by an individual water storage facility--water tank, swimming pool, etc.--on the property itself. The fire and planning departments shall determine the adequacy and location of individual water storage to be provided.

17.3.5 Water systems constructed, extended or modified to serve a new land use or a change in land use or an intensification of land use shall be designed to meet, in addition to the average daily demand, the standards shown in Table 2, subject only to changes authorized pursuant to Policy Number 17.4.2.

17.3.6 All new development located within a 15-minute response time from a fire station shall be required to annex to the appropriate fire district.

17.3.7 **DELETED JULY 31, 1984**

17.3.8 The maximum grade of the road shall not exceed 15 percent.

17.3.9 The road shall have an overhead clearance of 13 feet, 6 inches vertical distance for its entire width and length, including turnouts.

17.3.10 A road or driveway serving as access to any habitable structure shall not end farther than 150 feet from said structure. A turning area which meets the requirements of the fire department shall be provided at the end of the road.

17.3.11 Obstruction of the road width (Policy 17.3.1), including the parking of vehicles, shall be prohibited.

17.3.12 New and reconstructed bridges on tertiary and lesser roads shall be the width of the existing road bed and berms, but in any event no less than 12 feet wide. Bridge width on all roads exceeding tertiary standards shall be not less than the width of two lanes with berms. All bridges shall be designed for HS 15-44 loading (Standard Specification for Highway Bridges) and have guard rails.

17.3.13 Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.

17.3.14 All access roads and driveways shall be maintained by the responsible parties to ensure the fire department safe and expedient passage at all times.

17.3.15 Gates on emergency access roadways shall have a minimum width of 12 feet with the gate fully open.

Objective

17.4 Reduce fire hazard risks to an acceptable level by regulating the type, density, location, and/or design and construction of development.

Policies

17.4.1 All residential, commercial, and industrial structural development (not including accessory uses) in high and very high fire hazard areas shall incorporate recommendations by the local fire district before a building permit can be issued.

TABLE 2
FIRE SUPPRESSION STANDARDS

17.4.2 Every building, structure and/or development shall be constructed to meet, at minimum, the requirements specified in Volume I of the current edition of the Uniform Building Code, Fire Hazards Policy 17.3.5, and Table 2 of this general plan. The chief of the fire agency having jurisdiction may recommend to the appropriate decision-making authority a variation of the general plan fire hazard policies and Table 2 (but not U.B.C. standards) for such development where, in his opinion, the fire safety of the County and adjoining and nearby properties and improvements is not materially impaired by such variation.

17.4.3 The County shall adopt the Uniform Fire Code and appropriate amendments.

17.4.4 House numbers shall be posted on the property so as to be clearly visible from the road. Where visibility cannot be provided, a post or sign bearing the house numbers shall be set adjacent to the driveway or access road to the property. House numbers shall be posted when construction begins.

17.4.5 House numbering and street naming should be coordinated with the incorporated cities within the County.

17.4.6 The County should discourage location of public facilities and aboveground utilities in high or very high fire hazard areas. When unavoidable, special precautions shall be taken to ensure an acceptable level of risk and uninterrupted operation of these facilities.

17.4.7 The County shall require all subdivisions, multi- unit residential complexes, and commercial and industrial complexes to obtain, prior to permit approval, a statement from the fire department that adequate structural fire protection is available within minimum response time established by this Plan.

17.4.8 The County shall improve the review procedure for proposed development, including minor subdivision, and provide for an optional pre-submittal meeting between developer, planning staff, and fire officials.

17.4.9 The County shall provide a list of fire-resistant plants suited to each of the County's various micro-climates. This list should be made available at the zoning counter and other convenient locations.

17.4.10 The County shall assure that successive uses of individual buildings comply with appropriate building standards.

17.4.11 All new swimming pools shall be plumbed to allow connection to fire fighting equipment, if requested by the local fire jurisdiction.

17.4.12 A zone which can inhibit the spread of wildland fire shall be required of new development in fire hazard areas to protect development. Such zones should consider irrigated greenbelts, streets, and fuel modification zones in addition to other suitable methods that may be used. The County should not accept dedications of any open space lands required as part of this fire prevention zone.

Objective

17.5 Adopt an overall fuels management plan in high and very high fire hazard areas and begin implementation by 1984. This should be performed in conjunction with the California Department of Forestry and other fire protection agencies.

Policies

17.5.1 Where new developments are required to provide for fuel modification zones, the cost of such construction shall be borne by the developer. Future main tenance of such fuel modification zones shall be in accordance with the fire warden's recommendations.

17.5.2 Where it is established by the fire warden that a fuel modification program and zone must be constructed in order to establish an acceptable level of risk for fire protection and that such modification is determined by the Board of Supervisors to be unacceptable environmentally, then such development shall be modified to reduce the requirement for fuel modification.

Objective

17.6 By 1984, develop and implement programs in conjunction with fire protection agencies to reduce fire risk.

Policies

17.6.1 The County should encourage fire protection agencies to enter into mutual and/or automatic aid agreements to assure the most efficient response.

17.6.2 The County Fire Warden should define levels of fire protection services using criteria relating to response time from fire stations.

17.6.3 The County should give priority to high or very high fire hazard areas within the urban service area when planning expansion of fire protection facilities and equipment.

17.6.4 The County should encourage the California Department of Forestry to provide land and air fire-fighting facilities and equipment to meet estimated peak fire demands.

MISCELLANEOUS HAZARDS AND EMERGENCY PREPAREDNESS

18 GOAL

TO MINIMIZE THE RISKS FROM CHEMICAL USAGE.

Objective

18.1 Reduce the level of risk from hazardous chemicals to an acceptable level by regulating the storage of hazardous chemicals.

Policy

18.1.1 The County shall establish land use controls to reduce undesirable effects of hazardous chemicals.

19 GOAL

TO MAXIMIZE POST-DISASTER RELIEF CAPABILITIES AND RECOVERY OPERATIONS.

Objective

19.1 Ensure a fast, efficient, and coordinated response by public and private agencies to major emergencies.

Policies

19.1.1 The County's Administrative Office should annually review and update the disaster response plan and earthquake response plan to insure that personnel, facilities, and supplies are continually available.

19.1.2 Appropriate county and private agencies should hold disaster preparedness exercises frequently enough to maintain the efficiency of participating mutual aid agencies.

19.1.3 The County should provide sufficient funds and/or training as necessary to fulfill any response deficiencies that may be within the County's responsibilities and for which resources are avail able.

19.1.4 The Monterey County Emergency Plan should be amended to include evacuation plans showing evacuation routes, particularly on a local community basis. Community level plans should include provisions for emergency shelter, transportation, clothing, food, and medical aid. The plans should identify the roles and relationships of all governmental, quasi-

governmental, and private service agencies within the community and should provide an inventory of facilities within the community.

AIR QUALITY

Because clean air is a limited resource, society must become involved in deciding how it is to be used. As population growth occurs, increased demands are placed on air resources. To provide for growth and to maintain good air quality, proper actions must be taken to achieve desired standards of air quality.

Air quality is determined by the ability of the environment to disperse, transform, and remove pollutants; the quantity of emissions; the physical location and configuration of emission sources and the type and amount of background pollutants present. Air pollution is the result of impurities being introduced into an air basin in such abundance that they cannot be adequately absorbed or removed before they accumulate in harmful concentrations.

Unhampered by man, nature ensures air quality through a continued supply of the basic elements required by living organisms. However, with high concentrations of unnatural waste, the air basin becomes overloaded and no longer self-purifying. Pollutants may remain in the air or fall to the earth with rainfall, thereby contributing to soil and water pollution.

AIR QUALITY EFFECTS

In most areas of Monterey County, air pollution is more of an economic threat than a health hazard. The County's leading industries, agriculture and tourism, are vulnerable to air pollutants; the County's vegetable and fruit crops are especially susceptible to air pollutants. High ozone levels could reduce the quantity and quality of agricultural products.

The tourist industry is dependent on a clean, aesthetically-pleasing environment; polluted air could pose severe economic hardships. However, because the tourist industry is centered on the Monterey Peninsula where coastal air currents keep pollutant levels low, pollution of the air has yet to create a major economic impact.

AIR QUALITY IN MONTEREY COUNTY

Monterey County, along with the Counties of Santa Cruz and San Benito, lies within the North Central Coast Air Basin. Air quality within the basin is monitored by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) which maintains three air quality monitoring stations (Salinas, Monterey, and Mid-Carmel Valley) in Monterey County.

Monterey County benefits from generally favorable air quality. Only on a few days each year does the County's air quality exceed maximum federal or state ambient air quality standards. The pollutants which most often exceed the standards are oxidants and particulates. Oxidant levels are primarily affected by automobile traffic; and particulates, by agricultural operations.

Further, current theories attribute some air pollution to transport of air from the San Francisco Bay and San Joaquin Valley. Typically, four to six days of each fall may be affected by pollutant transport. The net result of this is to reduce the net available carrying capacity and require tighter controls on local emissions. Current studies on this matter should clarify existing questions regarding the extent and source of the transport problem.

Projected air quality for the North Central Coast Air Basin indicates that state regulations will continue to be exceeded in the near future. It should be noted that stationary sources are projected to remain the primary sources of air pollution in the future. Transportation (mobile) sources, however, are forecasted to be reduced by one-half of their current total by 1995.

AIR POLLUTION SOURCES IN MONTEREY COUNTY

Stationary sources are generally described as point or area sources. Point sources represent major identifiable sources, such as industrial plants. Area sources represent clusters of small, individual sources within a region. Major point sources within the County include pesticide users, the Moss Landing Power Plant, Kaiser Natividad, Kaiser Magnesium and Kaiser Brick in Moss Landing, and the Texaco and Mobil production fields in San Ardo.

Mobile sources are commonly referred to as line sources, and represent emissions from motor vehicles. The largest single contributor to mobile sources of pollution is, not surprisingly, on-road vehicles. Exhaust emissions from mobile sources are partly responsible for the high level of photochemical oxidants in the County's atmosphere. Concern for future oxidant levels for Carmel Valley's air basin is currently being expressed by MBUAPCD.

AIR QUALITY MANAGEMENT

Air quality management responsibilities exist at local, state and federal levels of government. Locally, the Monterey Bay Unified Air Pollution Control District has primary responsibility for the control of stationary sources of pollution. Local air pollution control district regulations limit the quantities of air pollution which may be emitted and have permit authority over new or major modifications to existing stationary sources of air pollution. Permits can be denied if emissions would either exceed limitations or result in the violations of any ambient air quality standard.

Control of mobile sources of air pollution is exercised at the state and federal levels. Emission control devices are required by the California Air Resources Board (ARB) on vehicles sold in California. The ARB is authorized to set statewide ambient air quality standards, monitor air pollutants, designate air basins, and if necessary, exercise control over stationary sources.

At the federal level, the Environmental Protection Agency (EPA) is responsible for air pollution control activities. With the Clean Air Act of 1963, the EPA was authorized to establish ambient air quality standards, to establish emission standards for stationary and

mobile sources, and to require all states to develop and adopt implementation plans to achieve and maintain these standards. With federal government approval, the Association of Monterey Bay Area Governments has developed an implementation plan for the Monterey Bay Area.

WATER QUALITY

Clean water is a necessity of life. Water is necessary for domestic, industrial and agricultural use, fish and wildlife habitats, and recreational uses. As the County grows, additional demands will be placed upon water sources. More clean water will be needed to meet future residential, industrial and agricultural demands; to accommodate a greater recreational demand; and to produce more fish to satisfy commercial fishing demands. Urban uses alone are expected to triple by the year 2000 from their 1970 levels.

Water quality problems are predominately related to waste emissions from point and nonpoint sources and geologic limitations. Surface and groundwater quality problems may vary from basin to basin or from area to area, depending on emissions. Water quality can be ensured through pollution prevention, expensive structural solutions, or comprehensive resources planning and management.

Water pollution is defined as the presence of substances--chemical, physical, or biological--which adversely affect living organisms or their habitats. Additionally, water pollution can also occur when the quantity of water is reduced. Pollution is generally considered to be a by-product of man's activities.

SURFACE WATER QUALITY PROBLEMS IN MONTEREY COUNTY

Table 3 identifies the major surface water bodies within the County, their respective surface water quality problems, and sources of pollution.

Implications of Degraded Surface Water Quality

Degraded surface water impairs fish and wildlife habitats and reduces the amount of water available for agricultural, industrial, and recreation uses.

Five aquatic areas within Monterey County have been designated by the state as Areas of Biological Significance (ASBS) and therefore require special protection. These areas are the Pacific Grove Marine Gardens Fish Refuge and Hopkins' Marine Life Refuge, Point Lobos Ecological Reserve, Carmel Bay, Julia Pfeiffer Burns Underwater Park, and the ocean area surrounding the mouth of Salmon Creek. Degraded water discharged into these areas could disturb the unique biological communities present. With the exception of the Pacific Grove's Marine Gardens and Hopkins' Marine Life Refuge, water quality for these ASBS is generally good. The Pacific Grove Marine Gardens is located within the degraded southern Monterey Bay; the impact of poor water quality on the bay's unique resources is currently under study by the state.

GROUNDWATER QUALITY PROBLEMS IN MONTEREY COUNTY

Groundwater is the principal source of water in the County, accounting for more than 80 percent of total water use. The development of this resource has been on a localized basis, with no real concern for overall regional management. A few years ago, when the water supply was adequate, this lack of concern for management was of little consequence. In recent years, the situation has changed. Increases in population and changes in land use and farming practices have resulted in increases in groundwater pumping. Pumping in several areas exceeds safe yield. This has caused seawater intrusion in the Pajaro and Salinas River groundwater basins. The increasing use and consequent problems have made it obvious that increased regional planning and management of groundwater use in the County are necessary.

Added stresses placed on groundwater basins can make protection of groundwater quality difficult. A contaminated surface water reservoir may be restored to acceptable standards of quality in a few years or less, while parts of a groundwater basin may be rendered useless for many years, or forever, if contaminants or pollutants get into the system.

Wide variations in quality within a groundwater basin occur due to man's influences and local geologic conditions. Variations often occur between the area of recharge and downstream pumping zones. Accordingly, calculated average water quality values give only a general indication of water quality in a given basin. For Monterey County, groundwater quality is monitored by the County Flood Control and Water Conservation District.

Sources of groundwater contamination include both point sources and nonpoint sources. Typical point sources are domestic and industrial wastewater disposal sites. Nonpoint sources are more diffuse and may include animal husbandry operations, natural mineralization, automobile emissions, and urban runoff. Seepage from sanitary landfills may also cause groundwater contamination. However, there are no known instances of landfills contaminating groundwaters in Monterey County. Contaminants generally are regionalized with each basin or sub-basin experiencing unique problems. These problems are usually the result of local geologic conditions and land use.

Table 4 lists the major groundwater subareas and their associated water quality problems. As can be seen, three principal problems affect the County's groundwater basins--saltwater intrusion, nitrate pollution, and natural reactions.

Suspected sources of nitrate pollution include wastewater discharges, agriculture return water, and septic system overloading.

About one quarter of the people living in the County use septic systems to dispose of their domestic wastewater. When these systems fail or are clustered too closely, health hazards from pollution of surface and groundwater can result. The primary causes of failure are heavy soils, high water table, steep slopes, and poor maintenance. Proper site evaluation is probably the single most critical factor in preventing failure. Septic system problem areas within the County and their causes are listed in Table 5.

Impacts of Poor Groundwater Quality

Health impacts of groundwater quality problems may be significant if affected groundwater supplies are used for domestic water supplies or incorporated in human food products. The significance of the impacts depends on the type of materials found in the water.

A health hazard exists when nitrate exceeds the state-allowed maximum. High nitrate and sodium levels have been linked with methemoglobinemia and hypertension, respectively. Health hazards may also be caused by heavy metals, pesticides, and other materials contained in municipal, industrial, or agricultural waste materials which are disposed of on land.

Impacts of poor water quality on agricultural and industrial uses are mainly economic. High nitrate levels do not adversely affect agriculture. High nitrate levels, in fact, may be beneficial by allowing growers to reduce fertilizer quantities. High chloride levels, however, have adverse impacts on food production, resulting in reductions in crop quality and yield. High chloride levels from seawater intrusion have forced growers to dilute water and to dig deeper wells for their water supplies. The result has been an increase in cost and further reduction in water levels.

CURRENT PROGRAMS FOR IMPROVING WATER QUALITY

In 1972, amendments were enacted to the federal Water Pollution Control Act. The major goal of the 1972 amendments was to restore and maintain the chemical, physical and biological integrity of the nations waters. Achievement of this act is intended through control of point and nonpoint emission sources. Point source municipal and industrial discharges are regulated by the National Pollutant Discharge Elimination System (NPDES). Nonpoint sources are controlled through regional planning efforts. Section 208 of the 1972 Act establishes control measures for wastewater discharge, protection for groundwater quality, and funding for regional planning efforts.

Funding for the development of regional water quality plans was allocated to the Association of Monterey Bay Area Governments by the State of California. Plans have been completed with special studies now in progress. These special studies are intended to implement some of the goals of the Clean Water Act of 1977.

WATER QUALITY MANAGEMENT

In Monterey County, the responsibility for water quality management rests with the Monterey County Flood Control and Water Conservation District and the County Health Department. While these two departments work together on water quality issues, each department has individual responsibilities. The County Health Department has authority in the public health aspects of water supply, wastewater disposal, and protection of recreational waters. The Monterey County Flood Control and Water Conservation District (MCFCWCD) is concerned with water quality as it relates to plant production. MCFCWCD staff also performs special water quality studies as directed by the Board of Supervisors

TABLE 3
Surface Water Quality in Monterey County

TABLE 4
Groundwater Quality Problems by Subarea

Table 5
SEPTIC SYSTEM MAJOR PROBLEM AREAS

ISSUES FOR AIR AND WATER QUALITY

1. The County's large forested areas provide a natural air purifier. How can this resource be protected?

2. Growth in some areas of the County could degrade local air quality. Can development in such areas be avoided?

3. Should industrial sources of air pollution be required to meet state air quality standards before they are allowed to expand their facilities?

4. Increased vehicle traffic is partly responsible for the air pollution in Monterey County. Future land use planning should provide alternatives to automobile travel.

5. Improved management of wastewater effluent is needed to prevent continued pollution of surface waters.

6. Information on groundwater systems is insufficient to adequately analyze potential growth impacts on groundwater quality. Without additional information, degradation of groundwater could result.

7. Nitrate pollution of groundwater has created health hazards. Sources of this contamination have yet to be substantiated.

8. Groundwater quality is being impaired by faulty private wells.

9. The Carmel Valley aquifer and wells within Carmel Valley are indicating early warning signs of septic pollution.

10. Overdrafting of groundwater reserves leading to saltwater intrusion has been a continual problem in Monterey County for over 40 years.

GOALS, OBJECTIVES, AND POLICIES FOR AIR AND WATER QUALITY

20 GOAL

TO PROVIDE FOR THE PROTECTION AND ENHANCEMENT OF MONTEREY COUNTY'S AIR QUALITY.

Objective

20.1 Preserve and enhance the air quality of Monterey County by adopting an environmentally sound land use plan by 1984.

Policies

20.1.1 The County's land use and development policies shall be integrated and consistent with the natural limitations of the County's air basins.

20.1.2 The County should encourage the use of mass transit, bicycles and pedestrian modes of transportation as an alternative to automobiles in its land use plans.

20.1.3 The County should develop and implement, where appropriate, a roadside tree program and should encourage and maintain vegetated/forested areas to the maximum extent feasible, for their air purifying functions.

20.1.4 The County should concentrate commercial development in designated centers that may be more easily served by public transit.

20.1.5 The County shall adopt a land use plan which promotes mixed land uses to reduce the need for vehicular travel.

Objective

20.2 Improve the air quality of Monterey County by regulating all sources of air pollutants and by adopting programs to improve the County's air quality by 1984.

Policies

20.2.1 The County shall condition approval of all new industrial and commercial development, including major modifications as defined by the Uniform Building Code, on meeting, as a minimum, federal and state ambient air quality standards and the rules and regulations of the Monterey Bay Unified Air Pollution Control District.

20.2.2 The County shall adopt and support, as a minimum, the *Air Quality Plan for the Monterey Bay Region* as prepared by the Association of Monterey Bay Area Governments.

20.2.3 The County shall continue to support air quality monitoring and air pollution control strategies and enforcement by the Monterey Bay Unified Air Pollution Control District.

20.2.4 The County should operate in accordance with current regional, state, and federal air quality standards.

20.2.5 The County shall encourage the use of the best available control technology as defined in the most current Monterey Bay Unified Air Pollution Control District rules and regulations in reducing air pollution emissions.

20.2.6 The County shall require that any particulate fallout problem created by the establishment or expansion of industrial facilities be mitigated to the satisfaction of the Monterey County Board of Supervisors or its designee, and the Monterey Bay Unified Air Pollution Control District as a condition of a use permit for any further upgrading, expansion, or modification that may degrade the quality of emissions from these facilities.

20.2.7 Where needed, additional atmospheric surveillance stations shall be established 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.

21 GOAL

TO ENSURE THAT THE COUNTY'S WATER QUALITY IS PROTECTED AND ENHANCED TO MEET ALL BENEFICIAL USES, INCLUDING DOMESTIC, AGRICULTURAL, INDUSTRIAL, RECREATIONAL, AND ECOLOGICAL.

Objective

21.1 Protect and enhance surface and groundwater quality by implementing current adopted water quality programs and by continuing to evaluate new problems; develop new programs in accordance with the following policies by 1984.

Policies

21.1.1 The County shall establish growth policies which are integrated with the natural limitations of the County's surface and groundwater bodies to sustain acceptable quality.

21.1.2 The County shall assume an active role in initiating and supporting beneficial water quality programs that affect the County.

21.1.3 The County shall maintain the erosion control ordinance and update it as new information becomes available.

21.1.4 The County shall encourage the agricultural community to work closely with the Soil Conservation Service and Resource Conservation Districts to reduce the existing and potential erosion on agricultural land.

21.1.5 The County shall continue to monitor effluent from major wastewater dischargers.

21.1.6 The County shall identify, and have the property owner repair or destroy, wells that contribute to groundwater degradation; wells shall be repaired or destroyed according to state standards and such actions shall be reviewed and approved by the County Environmental Health Department.

21.1.7 The County shall monitor surface and groundwater quality to warn of potential problems.

21.1.8 The County shall cooperate with state and federal agencies in identifying seawater intrusion problems and shall seek available state or federal assistance in solving these conditions.

21.1.9 The County shall promote and support the investigation of the source of, and remedies to, the nitrate pollution problems.

21.1.10 The County shall implement a program to prevent further seawater intrusion by developing supple mental sources of water for the North County. This may include water importation, water conservation, and wastewater reclamation.

Objective

21.2 Enhance the quality of water in the County by regulating the type, location, and intensity of land use, and grading operations.

Policies

21.2.1 The County shall require all new and existing development to meet federal, state, and County water quality regulations.

21.2.2 The County shall allow only those land uses which do not pollute the groundwater system beyond acceptable limits.

21.2.3 Residential, commercial, and industrial developments which require 20 or more parking spaces shall include oil, grease, and silt traps, or other suit able means, as approved by the Monterey County Surveyor, to protect water quality; a condition of maintenance and operation shall be placed upon the development.

21.2.4 The County shall require the installation and maintenance of appropriate check valves on irrigation systems where liquid fertilizers are dispensed.

Objective

21.3 Ensure that sewage and industrial waste disposal from new and existing development will not contaminate surface or groundwaters.

Policies

21.3.1 The County should support sewage treatment projects that reduce contamination of surface and groundwater to acceptable levels.

21.3.2 The County shall encourage the investigation, under supervision of County health officials, of the cost- effectiveness, reliability and health acceptability of alternative wastewater disposal methods. The County should approve alternate wastewater disposal methods when they are safe and acceptable to the Environmental Health Department.

21.3.3 No division of land or use permit for residential, commercial, or industrial uses shall be approved without proof that an adequate waste disposal system can be developed.

21.3.4 The County should determine the number of septic systems that can be developed in an area before groundwater is threatened. Except for single-family residences on existing lots of record, development should not exceed that number unless approved alter native wastewater systems are provided. The North County Planning Area should be given first priority in any studies undertaken.

21.3.5 Wastewater treatment facilities shall not be sited in, or allowed to expand into, environmentally sensitive habitat areas unless environmental impacts can be mitigated.

NOISE HAZARDS

People produce sound, machines produce sound, even elements of nature produce sound. Sound can be both pleasurable and irritating. Scientifically, a sound is the vibration of molecules in the air, or in a liquid or solid medium, that affects our sense of hearing. These vibrations may have a simple harmonic motion like a swinging pendulum or may have a complex motion like automobile traffic. Our perception of sound is characterized by its amplitude (loudness), its frequency (pitch), and its duration (time).

Noise, on the other hand, is a disturbing, harmful, or unwanted sound which is created by an erratic, intermittent, or statistically random oscillation of sound waves. Therefore, by definition, noise is a totally subjective term having different meanings to different people. A common colloquialism stating, "one man's music is another man's noise" exemplifies the subjective nature of noise. However, the process of discerning noise from sound is influenced by one's familiarity with the sound, personal attitudes, local environment, and/or desire to hear the sound.

EFFECTS OF NOISE

The U.N. World Health Organization defines health as the state of physical, mental, and social well-being and not merely the absence of disease or infirmity. Noise can be an element of annoyance and a threat to physical and mental health. Persistent noise can act in the same way as a disease might infect the ear. The U.S. Environmental Protection Agency has specified that 55 Ldn outside and 45 Ldn inside are the sound levels necessary to protect our general health and welfare.

In general, excessive noise can cause hearing impairments, digestive disorders, heart and circulation disease, irritability, nervous disorders, mental illness, and allergies. Besides the harmful physical effects of noise upon people, noise can also cause annoyance. The extent of annoyance depends on what we are trying to do at a particular moment, previous conditioning (both communitywide and individual), and on the type of noise. Also, noise can interfere with various individual and community activities.

NOISE CONDITIONS IN MONTEREY COUNTY

Monterey County currently has no major or large-scale noise problems. The County is characterized by large expanses of undeveloped lands with few noise sources. The population density in the unincorporated areas is generally limited to the point of having few residential areas, schools, hospitals or other noise sensitive facilities located in areas experiencing noise levels in excess of 60 dBA Ldn.

The principal noise sources in Monterey County consist of transportation facilities, several industrial and food-packing plants, several mining operations, and a power-generating plant. Figure 9 shows noise sources and noise sensitive areas in the County. Detailed noise contour maps for major roads and highways are on file and available for inspection at the Monterey County Planning Department.

Transportation Noise Sources

The transportation-related noise sources consist of roadways, railroads, and airports, but for the most part, these sources are isolated from noise sensitive areas and are expected to remain so. Some of the major roadways in the County pass close to residential areas and several schools. Of these, all but three schools (Moss Landing, Pajaro, and Hall) and approximately 1.4 percent of all residences are separated enough from the roadways to reduce noise levels to acceptable levels (less than 60 dBA Ldn). However, quiet residential areas such as Carmel Valley and Toro area are experiencing growth pressure, and future increases in sound levels could affect these areas.

Airports and air traffic within the County have varied impacts on adjacent lands. The Mesa del Rey Airport in King City is surrounded by agricultural and industrial areas and presently has no noise level conflicts with adjacent land uses. However, the Monterey Peninsula, Salinas Municipal, and Carmel Valley Airports partially border residential areas, a situation which has already created noise-related conflicts with surrounding residents. The Monterey Peninsula Airport District is preparing an airport noise control and land use compatibility study. A similar study has also been completed regarding noise impacts related to the Salinas Municipal Airport.

The Southern Pacific Transportation Company's main line tracks and some yard facilities (Pajaro) generate noise levels in excess of 60 Ldn. However, these facilities both emit low enough noise levels and are sufficiently removed from noise sensitive areas to create only minimal problems. In terms of transportation-related noise, it is estimated that less than one percent of the entire county population of approximately 290,444 people reside within adversely affected areas; only three schools and no hospitals are located in these same areas.

Industrial Noise Sources

Field monitoring at industrial plants and packing sheds showed that noise levels on surrounding properties are acceptable. The same is true of noise levels on properties adjacent to the Pacific Gas and Electric power-generating plant in Moss Landing. Noise levels at the Granite Construction Company rock quarry, which is located east of the City of Carmel off of Carmel Valley Road, were measured and found unacceptable by the Monterey County Health Department but the company has now reduced operations to gain compliance with County noise ordinances. Noise levels at the Kaiser dolomite quarry are also in conformance with County noise ordinances.

LAND USE PLANNING IMPLICATIONS

One of the most effective means of mitigating adverse noise impacts consists of simply separating noise sensitive areas from noise sources. This approach is often the least costly in that it can avoid the need for expensive site specific noise mitigation structures, such as sound walls or structural soundproofing. In urban areas, there is not always sufficient land to allow adequate separation of population concentrations from transportation systems (the major sources of noise).

There are essentially three sources of noise impacts in Monterey County which can be controlled to at least some degree through comprehensive land use planning. Industrial sources can be isolated from residential and other noise sensitive areas. Commercial noise sources can also be separated from noise sensitive areas, as can a significant part of transportation-associated noise. Airports can and should be isolated from residential land uses as should railroad facilities.

FIGURE 9
NOISE SOURCES & NOISE SENSITIVE AREAS

ISSUES FOR NOISE HAZARDS

1. The rural nature of the County is partly responsible for the relatively low ambient noise levels countywide, but increased noise levels resulting from urban growth could adversely affect quiet areas. How can low noise levels be maintained?

2. Noise levels near the County's primary airports, major highways, and rail lines exceed desired residential levels.

3. Development near the County's primary airports could pose grave noise concerns.

GOALS, OBJECTIVES, AND POLICIES FOR NOISE HAZARDS

22 GOAL

TO MAINTAIN AN OVERALL HEALTHY AND QUIET ENVIRONMENT BY TRYING TO ACHIEVE LIVING AND WORKING CONDITIONS FREE FROM ANNOYING AND HARMFUL SOUNDS.

Objective

22.1 Adopt noise reduction measures and begin implementation by 1984; revise as conditions change.

Policies

22.1.1 The County shall adopt the comprehensive noise ordinance as provided in the County's *Noise Analysis* report, dated March, 1981.

22.1.2 The County shall adopt the proposed administrative review process and other implementation methods as indicated in the *Noise Analysis* report.

22.1.3 The *Noise Analysis* report should be updated whenever significant sources of noise are introduced; by 1985, the data base used for the *Noise Analysis* report should be assessed, new forecasts made, the ordinance reviewed, and planning procedures updated.

Objective

22.2 Ensure, through land use planning, a quiet acoustic environment in portions of the County to be developed.

Policies

22.2.1 The County shall require new development to conform to the noise parameters established by Table 6, Land Use Compatibility for Exterior Community Noise Environments.

22.2.2 The County shall require the appropriate standards of soundproofing construction in all multiple-residential structures as specified in the Building Code.

TABLE 6
LAND USE COMPATIBILITY FOR EXTERIOR COMMUNITY NOISE

22.2.3 The County shall require environmental review of all proposed new development, expansion of industrial facilities, and quarry excavation and processing activities which may increase the noise level in surrounding areas or generate noise levels greater than those specified in Table 6.

22.2.4 The County shall specify working hours as part of the use permit for industries where on- and off-site noise is a concern to adjacent land uses.

22.2.5 The County, in accordance with Table 6, should require ambient sound levels to be less at night (10 p.m. to 7 a.m.) than during the day.

22.2.6 The County shall make available to the public methods and existing noise data which can be employed to reduce unwanted noise from the environment.

Objective

22.3 Reduce annoying levels of noise, where appropriate, for all existing situations to an acceptable level by 1984.

Policies

22.3.1 The County shall develop cooperative working relationships between those uses that produce noise and those that are sensitive to noise to mitigate existing noise problems.

22.3.2 The County shall encourage the state to establish and enforce noise emission regulations for recreational off-road vehicles, motorboats, and other recreational vehicles.

22.3.3 The County shall work with the California Department of Transportation to mitigate the effects of existing highway noise and to avoid future noise problems through careful analysis at the design stage of all new highway improvements.

CHAPTER III: HUMAN RESOURCES

The human resources component encompasses the demographic and socioeconomic analyses of the General Plan. The size, characteristics, distribution, and structure of the County's population, past growth trends, and the projected population are explored in the demographic section. The social and economic characteristics of the population--level of education, labor force distribution, personal income, number of low income households, type of employment--as well as the state of the County's economic base are analyzed in the socioeconomic section. The size and make-up of the current and future population and its economic well-being are the basis for major planning decisions and assessing demand for housing, jobs, land, water, recreation, and transportation.

DEMOGRAPHY

Population analysis and projections are important components of the planning process. The characteristics and amount of people expected to live in a region are the basis for major planning decisions including the assessment of future demand for housing, open space, land, water, transportation, and jobs. Demographic data such as the size, distribution, and structure of the population are also determining factors for the type and level of future public services and facilities.

POPULATION TRENDS

County

Population trends have been compared for Monterey County and the State of California over a 40-year period. In-migration during and after World War II gave a tremendous impetus to population growth in California and coastal counties such as Monterey. The rate of population growth both soared and peaked in the 1940s. Monterey was a sleepy county of 53,705 people in 1930. Between 1940 and 1950 Monterey County grew 79% to 130,498 residents. The growth rate, which has been sharply decreasing since 1950, has been fairly close to that of the state. The County grew by 17% in the 1970s while the state grew by 19%. The current trend is toward a slowing down of population growth.

The County as a whole has continued its upward growth rate since 1940, but the population has shifted increasingly from unincorporated areas to incorporated cities. With only six incorporated cities in 1940, the unincorporated population was proportionately larger and showed positive growth until 1960. Thereafter, there was a dramatic increase in population for the cities; by 1980, there were twelve incorporated cities with 71% of the County's population.

Incorporated Cities

The City of Salinas has grown dramatically and is clearly the dominant urban center of Monterey County. In 1940, Salinas was a small town of 11,586 people. In each successive decade since then, Salinas has doubled its population by annexing adjacent land. The city is continuing to expand and had a 37% growth rate through the 1970s.

The seven peninsula cities showed a mixture of moderate growth and population decline in the 1970s. The Cities of Monterey and Carmel grew at a modest 5% and 4% respectively. Pacific Grove increased by 17% because of annexation but is not expected to grow much larger. Del Rey Oaks, a tiny land-impacted city of less than one square mile, lost 15% of its population between 1970 and 1980. Sand City, an almost totally industrial city, decreased 14%, from 212 people to 182. Marina was unincorporated in 1970; because of incorporation and annexation of new census tracts, Marina increased its population by 65%. If Marina annexes the Armstrong Ranch, it will have the land area needed to accommodate even further

population growth. Seaside and Marina both house a substantial portion of Ft. Ord's population.

The Central Salinas Valley cities all grew at a rapid rate between 1970 and the present. Greenfield was the fastest growing city, gaining 60% in population. King City grew 48%; Soledad, 40%; and Gonzales, 12%.

Planning Areas

Table 7 illustrates population growth by planning area between 1970 and 1980. Population growth or decline is demonstrated first for both the unincorporated and incorporated populations of each planning area. Then the population growth of cities and unincorporated census tracts are summed and total growth is demonstrated by total planning area.

The planning areas with no incorporated cities--North County, Toro, South County, Coast, and Cachagua--are continuing to expand their population base. Toro and North County, with a proliferation of subdivisions in the past ten years, grew at 67% and 45% respectively. Coast had the next highest growth rate, 42%, followed by Cachagua, 32%, and South County with 20%.

The planning areas which have a concentration of population in rapidly growing incorporated cities showed growth in their unincorporated areas as well, with the exception of the Greater Monterey Peninsula. Unincorporated Greater Salinas increased by 12% while the City of Salinas increased 37%. The total planning area had a net increase of 34%. The Central Salinas Valley's unincorporated area gained 23% in population due to rapid growth around the incorporated cities; the cities themselves grew 41%. The overall planning area increased its population by one-third.

Between 1970 and 1980, the Peninsula unincorporated area lost 28% while the cities gained 27%. The total planning area had a net growth of 10%. It must be noted that this figure excludes Fort Ord; this is because Fort Ord contains a sizeable percentage of the Peninsula's population and has lost a third of its personnel since 1970. Therefore, it was necessary to analyze population growth with and without Fort Ord. With Fort Ord included in the total, the Peninsula's population remained nearly the same.

TABLE 7
POPULATION CHANGE BY PLANNING AREA, 1970-1980

COMPONENTS OF POPULATION CHANGE

Change in population can be expressed in terms of the basic components of demography: births, deaths, and migration. In comparing the birth and death rates for Monterey County with the state and the nation since 1950, the data indicate that the County consistently has had a much higher birthrate and much lower death rate than either California or the United States. Therefore, this high rate of natural increase (births minus deaths) is the basis for much of the County's population growth.

The numbers and rate of natural increase and net migration have been examined on a yearly basis between 1970 and 1978 for both the civilian and military populations. The civilian population has increased each year while the military population has decreased steadily. At the same time, the rate of net migration has been on the decline. And in 1978, when natural increase was at its peak, migration suffered a net loss. The data also indicate that 75% of the migratory population was in the military. Therefore, because in-migration is so heavily military dependent, a correlation may be made between a decline in the military population and out-migration. Finally, during the past decade net migration only accounted for 12% of the total change in population; natural increase was clearly the dominant force in population growth.

RACIAL AND ETHNIC POPULATION

According to the 1980 Census, the minority population in Monterey County comprises approximately 40% of the population. The category "Persons of Spanish Origin," which includes Mexican-Americans and all other Hispanics, makes up 26%. Blacks and Asians make up 6% and 7%, respectively.

Minorities are not evenly located throughout the eight planning areas. Minorities are low in number in the Toro (12%), Coast (8%), and Cachagua (5%) Planning Areas. North County, Greater Salinas, and South County have large proportions of Hispanics and low proportions of Blacks and Asians. The Peninsula contains most (84%) of the County's Black population and 55% of the County's Asians. The Central Salinas Valley is the only planning area in which the "non-minority" population is the minority with 45%; the majority of the population is Hispanic.

POPULATION PROJECTIONS

The purpose of population projections is to provide a reasonably accurate picture of future growth. Projections are important to the planning process as future needs of the County are dependent upon population demands. No projection will provide the "perfect" projection figure; the value lies in its demonstration of the approximate magnitude and composition of future population.

Based on AMBAG's population projections, plotted in five-year increments, the forecast for Monterey County indicates a population of 419,000 by 2000. This would be a growth of 146,900 persons between 1976 (the projection's base year) and 2000. AMBAG predicts an average annual growth rate of 1.91%.

SOCIAL AND ECONOMIC SETTING

This section discusses the state of the local economy--that is, growth in employment sectors and the corresponding growth in the labor force. An analysis is also made of the relative prosperity of the population. Level of education, personal income, and the number of low income households are indicators of the population's economic well-being.

*SOCIOECONOMIC CHARACTERISTICS**

Labor Force

The labor force has increased as a percentage of the population from 32% in 1960 to 46% in 1978. This 46% participation rate is considered to be low and can be partially explained by the large number of military population (included in the total population but not in the labor force.) The trend of a rising participation rate is expected to continue due to the increasing numbers of women entering the labor force and the decreasing military population. The labor force has been expanding at a greater rate than the population of the County. From 1970 to 1980, the growth in the labor force totaled 46%, while growth in population was 17%.

In Monterey County, the predominant characteristic of employment is that it is extremely seasonal. Unemployment is highest in the winter months and lowest in the summer. This is because agricultural employment is highest in the summer. In 1980, Monterey County's annual average unemployment rate of 9.2% was well above that of the state (6.8%) and the nation (7.5%).

Education

The data indicate that there is a wide educational gap between various communities within the County. The 1970 Census indicates that the countywide median years of school completed was 12.4 and the proportion of persons finishing high school was 62.5%. The lowest levels of educational attainment were found in North County and in the Central Salinas Valley where a majority of persons had not finished high school. The highest levels of educational attainment were found in Toro, the Coast, and the Monterey Peninsula where a sizable percentage had completed some college.

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*The 1980 Census economic data were not available at the time this report was printed; the 1980 Census information has been incorporated into each of the area plans.

Income

The share of the County's total personal income has shifted since 1959 when the military held the top position. By 1978 agriculture was the County's leading income earner, producing 25% of County income. The service sector was in second position with 14% of County income, followed by the military with 13%.

The data on household income and the proportion of low income households indicate a wide disparity in living standards between planning areas and County communities. The median household income countywide was $11,855 in 1976. The Toro Planning Area had the highest median income, $22,221, almost double (187%) the County's median; Toro also reported only 10% low income households. The Peninsula area encompassed a wide range of income. For example, Seaside is a low income community whereas Pebble Beach with a $24,185 median (204% of county median) had the highest income level of any community countywide. Pajaro and Castroville in North County, Boronda in Greater Salinas, and Chualar and San Lucas in Central Salinas Valley are the County's poorest communities with a majority of their households reporting very low incomes.

Employment

The extent to which the County's economy has diversified is indicated in employment distribution trends since 1950. Less dependence on the military (which employed 51% of County residents in 1950) and sharp increases in the agriculture, retail trade, services, state and local government, and manufacturing sectors marked the changes in the economy between 1950 and 1978. Retail trade and services, those sectors which make up the tourist industry, saw a 50% growth rate in employment and each held a 14% share between 1970 and 1978; tourism is the County's third largest industry. The industries which had shown erratic growth were wholesale trade and construction. Since 1950, both industries have decreased their share of the employment pie.

INDUSTRY PROFILES

The following section explores the County's basic industries: agriculture, manufacturing, the visitor sector, and the military. The profiles examine the industries' impact on the local economy in terms of employment, income, and potentials for growth.

Agriculture

Agriculture is Monterey County's greatest single source of income, primary land use, and one of the County's largest employers. Not only is the industry important locally, but important to the State and the nation as well. This is evident by the fact that Monterey County, with a $745.5 million gross farm income in 1980, is the sixth-ranked agricultural county in California and ranks eleventh in the United States. In that year, thirty-five agricultural commodities showed gross receipts exceeding one million dollars each. Vegetable crops alone generated gross receipts in excess of half a billion dollars in 1980. The County is a leading producer of lettuce, artichokes, grapes, and strawberries.

Much of Monterey County's economic health is dependent on the performance of its agriculture industry, as indicated by the above data on income and employment. Although gross farm income has risen yearly, production expenses have climbed at an alarming rate. Labor costs, urban development pressure, the high costs of land, energy, water, transportation, equipment, and high interest rates are also components in the economic viability of agriculture. These costs have cut deeply into profit margins in recent years. Land use decisions, management skills, the agricultural market for local commodities, technological advances, and the weather will continue to be the most significant factors in determining the growth potential for the complex agricultural industry in the future.

Manufacturing

Manufacturing employment and earnings represent a much smaller share of Monterey County's economy than in California as a whole. Food processing is the main component of County manufacturing and is closely linked to the productivity of the agricultural sector. Manufacturing has experienced steady growth since 1950. One of the major tasks facing the County will be to attract new manufacturing firms in light of four large plant closures and the loss of 2,500 jobs. The County has certain strengths and weaknesses which can attract or discourage potential firms.

The County's major assets are its excellent quality of life and its ready access to transportation networks. Factors which discourage manufacturers from locating in the County are the limited availability of industrial sites, prohibitive cost and scarcity of housing, environmental regulations, and the government permit process. In spite of recent economic setbacks in manufacturing, strong growth is possible if some of these constraints are mitigated.

Visitor Sector

The visitor sector has tremendous direct and indirect impacts on employment and income. Expenditures by all visitors in 1979 accounted for more than half of all sales in Monterey County restaurants and one-third of all sales in retail stores as a result of direct spending and the multiplier effect of that spending. It is estimated that about 15% of total employment in the County is supported by the visitor sector. As a reflection of the importance of visitors to the service and trade industries, about 44% of all service and trade employment is supported by visitor dollars.

Forecasted growth in the visitor sector is dependent upon a projected 67% increase in the current number of hotel/motel overnight accommodations (4,000 units to be added under this projection). This would provide the impetus for a 115% increase in employment between 1976 and 1995. Visitor sector employment includes jobs in the retail and service industries. It should be noted that the forecasted growth may be too high because water and sewer constraints on the Monterey Peninsula may limit future hotel construction.

The Military

Military installations form an integral part of the economic structure of Monterey County. In 1978, the military's share of County employment was 18% and its share of income was 13%

or $251.8 million. The Army payroll for fiscal year 1980-1981 was $274 million. The Army also spent $66.4 million in the community on contractual services and supplies and $20.3 million on major construction projects. Many businesses, banks, and services around the Monterey Peninsula, where military establishments are mainly concentrated, are heavily dependent on military personnel and their families. Thus, the military is, and will continue to be, an important component of Monterey County's economy.

ISSUES FOR HUMAN RESOURCES

1. The key social and economic issue is economic development; economic development refers to the development of the County's economy to expand employment opportunities. Economic growth depends on growth in each of the County's basic industries: agriculture, tourism, and manufacturing.

2. What is or should be the County's role in improving the overall economic climate? For example, the County can improve its competitive position in attracting firms to locate here by streamlining the government permit process, undertaking an inventory of industrially zoned land, and providing infrastructure to industrial parcels.

3. Lack of year-round employment in the agriculture and tourist industries--the sectors which dominate the County's economic base--is the primary cause of employment instability. How can this instability be remedied?

4. Firestone and other plant closures have created a large force of dislocated workers. Should the County plan for and encourage a diversified economic base in order to provide a wide range of job opportunities in the region?

5. Because agriculture accounts for approximately one-third of the County's economic base, should local governments undertake stronger measures to protect the economic viability of the agricultural industry?

6. How will the County maintain a balance between economic and environmental objectives?

GOALS, OBJECTIVES, AND POLICIES FOR HUMAN RESOURCES

23 GOAL

TO ENCOURAGE COORDINATION OF PRIVATE AND PUBLIC RESOURCES FOR ECONOMIC DEVELOPMENT.

Objective

23.1 Promote an independent, private economic development organization consisting of representatives from the private and public sectors.

Policies

23.1.1 A countywide comprehensive economic development plan shall be prepared and implemented.

23.1.2 The County shall form an interdepartmental technical advisory committee to assess the County's long-range infrastructure needs, and shall coordinate with the economic development organization.

Objective

23.2 Develop strategies to improve the County's economic climate.

Policies

23.2.1 The County shall strengthen the mandates of county departments to participate in economic development-oriented activities.

23.2.2 The County shall continue to pursue state and federal funds for economic development projects in targeted portions of the unincorporated area.

23.2.3 The County shall streamline the development review and approval process.

23.2.4 The County shall participate in, sponsor, and coordinate activities with other local governments which address the County's economic problems.

23.2.5 The County shall work with the cities and LAFCO to formulate procedures to encourage location of new firms in areas with urban services.

24 GOAL

TO PROMOTE DIVERSIFICATION AND CONTINUED GROWTH OF THE COUNTY'S ECONOMIC BASE WITH COMPATIBLE INDUSTRY.

Objective

24.1 Place a top priority on immediate efforts to stabilize and expand county employment in the agriculture, tourism, retail, manufacturing, and military sectors.

Policies

24.1.1 The County shall actively encourage and promote the preservation and expansion of the County's agricultural land and agri-business economic base.

24.1.2 The County shall support the retention and expansion of all viable and attractive tourist, retail trade, consumer and business establishments.

24.1.3 The County shall promote the continued growth of compatible industry on sites designated for industry and commerce.

24.1.4 The County shall encourage and promote the retention of military establishments and the provision of related housing and services.

25 GOAL

TO COORDINATE ECONOMIC PLANNING ACTIVITIES WITHIN THE ENTIRE GENERAL PLAN FRAMEWORK.

Objective

25.1 Ensure that the County General Plan and area general plans reflect the interrelationships between land uses, employment needs, housing demand, and the provision of public services and facilities.

Policies

25.1.1 The County shall establish the preservation, enhancement, and expansion of viable or potentially viable prime farmlands, farmlands of statewide importance, unique farmlands, and farmlands of local importance as the top land use priority for guiding further economic development unless there is a satisfactory showing that such farmlands are not viable or potentially viable.

25.1.2 The County shall promote economic development which is consistent with General Plan goals such as environmental, scenic, natural resource conservation, and growth management.

25.1.3 The County shall evaluate and respond to long-range infrastructure needs for existing and future residential, commercial, and industrial development.

CHAPTER IV: AREA DEVELOPMENT

The County development component of the General Plan includes the subjects of land use, current holding capacity and zoning, transportation, public services and facilities, and housing. These represent the major considerations in the spatial distribution of human activities and the facilities necessary to support them. County development encompasses the environment built by man.

The land use analysis examines the pattern of existing development; that is, it examines the extent and location of land developed with various uses. Current holding capacity analysis examines the availability of vacant land for various development uses and provides an estimation of total development potential under existing zoning. Existing zoning officially designates the permitted uses and densities of all land in the County. The transportation section describes the County's transportation network for the movement of people and goods. The adequacy of services and infrastructure is analyzed in public services and facilities. The housing needs analysis describes characteristics and trends in housing supply and conditions related specifically to the housing needs of low income households.

EXISTING LAND USE

This section discusses existing land use in Monterey County--the location of various uses is shown in Figure 10.

EXISTING LAND USE IN THE UNINCORPORATED AREA

Residential Uses

Residential land uses total approximately 14,055 acres (about 0.7% of total County area). Over 90% of the residential land use acreage is committed to single family residential units (including mobile homes)--the remainder is committed to multi-family development. Most of the residential use in Monterey County is concentrated in the northern one-third of the County.

Commercial Uses

In total acreage, the County's smallest land use category is commercial. The County contains 560 acres of commercial uses (equal to 0.03% of total County area), generally located in close proximity to residential areas and areas with a high incidence of tourist usage. General commercial facilities such as retail stores and service-oriented businesses are included in this category as well as tourist-oriented commercial operations such as hotels and motels.

Industrial Uses

Industrial land uses total 7,227 acres (0.3% of total County area) and generally include manufacturing, warehousing, wholesale operations, mineral extraction and sewage treatment plants.

Public and Quasi-Public Uses

Public and quasi-public uses are the second largest category of existing land use in the unincorporated area, totaling 602,824 acres (about 28% of total County acreage). Included in this category are educational, transportation, and religious facilities, community halls, military bases, and recreational/cultural facilities.

Streets, Highways, and Railroads

These uses total 14,213 acres (0.7% of total County acreage). Of all the highways in the County, the five major ones are: 1, 68, 101, 156, and 183. In addition, there are numerous County roads and private roads serving the developed portions of the unincorporated area. Railroad transportation is available through the northern part of the County, the entire Salinas Valley, and to the Monterey Peninsula as far as Seaside.

FIGURE 10
EXISTING LAND USE

Agricultural Uses

Agricultural land uses in the unincorporated areas of Monterey County represent a tremendous amount of acreage. Altogether, 1,210,939 acres (about 57% of the County) are devoted to irrigated cropland, dry farming, grazing, animal husbandry, and related agricultural services. The great bulk of this land, more than 80% is rangeland. Much of the remainder is intensively cultivated prime farmland (187,015 acres) and farmland of statewide importance (42,650 additional acres) according to the Soil Conservation Service definitions established for California. These excellent farmlands are most widespread in the North County, Greater Salinas, and Central Salinas Valley Planning Areas. These are the most productive and lucrative agricultural lands in the County and may yield three crops per year.

Unimproved Lands/Watershed Areas

Unimproved lands/watershed areas total 237,127 acres (about 11% of the total County area). These are lands which are generally vacant and which may serve as valuable watershed.

Major Water Bodies

This category includes the County's major inland water bodies, which total 7,571 surface acres (0.4% of total County area). Man-made storage facilities, Elkhorn Slough, and the County's six rivers are included in the total acreage.

EXISTING LAND OWNERSHIP IN MONTEREY COUNTY

Almost 30% of the County is publicly owned and generally not subject to private development. Approximately 27% of the County is owned by the U.S. Government. Land owned by Monterey County is equal to 1% of the total County area. The State of California and the incorporated cities each possess land holdings which equal 0.5% of the total County area. It should be noted that due to leasing arrangements or access restrictions, not all land in public ownership is available for use by the general public.

EXISTING LAND USE IN THE COUNTY PLANNING AREAS

Each of the County's eight planning areas possesses its own distinctive pattern of existing land use indicative of the County's varied resources, opportunities, and constraints. Agricultural land uses account for more than half of the total land use in five of the planning areas--Greater Salinas (86%), Central Salinas Valley (74%), North County (69%), South County (68%), and Toro (66%). Further emphasizing the County's rural character, five of the planning areas contain significant amounts of unimproved lands/watershed areas--Cachagua (35%), Greater Monterey Peninsula (30%), Coast (19%), Toro (18%), and North County (16%). Planning areas with a significant acreage in major water bodies include North County (2%), South County (0.7%), Greater Monterey Peninsula (0.04%), and Cachagua (0.07%). Public and quasi-public uses such as recreational and resource management uses are also important as reinforcement of the County's rural character. Planning areas with significant amounts of

public and quasi-public uses include Coast (71%), Cachagua (41%), Greater Monterey Peninsula (32%), South County (26%), Central Salinas Valley (17%), and Toro (13%).

The unincorporated portions of the County have relatively small amounts of residential, commercial, and industrial development. Only four planning areas have residential use equal to, or in excess of, 1% of the total planning area acreage--North County (6%), Greater Monterey Peninsula (4%), Toro (2%), and Greater Salinas (1%). Commercial land uses amount to less than one-half of one percent of the land uses in any given planning area. This small percentage of acreage for commercial use may be attributable to the fact that commercial uses are relatively intensive uses which generally do not require large amounts of land. In addition, most commercial uses are located within incorporated areas not included in these totals. Industrial uses, which generally have large spatial requirements, account for a larger percentage of land use in each planning area than do commercial uses. Only two planning areas, Greater Salinas and North County, have 1% industrial use. All other planning areas have less industrial use.

Streets, highways, and railroads account for a relatively small percentage of land use. The North County Planning Area, which contains three State highways, numerous County and private roads and Southern Pacific Railroad trackage, contains 3% of its total area in the streets/highways/railroad category. The Greater Monterey Peninsula, Toro, and Greater Salinas Planning Areas each have 1% of their total area in this use category. All other planning areas have less than 1% use in this category.

Although there are twelve incorporated cities in the County, only three planning areas contain any cities within their boundaries. Incorporated cities make up 15% of the total acreage within the Greater Monterey Peninsula Planning Area. These cities are Monterey, Pacific Grove, Carmel, Del Rey Oaks, Seaside, Sand City, and Marina. The Greater Salinas Planning Area, which includes the City of Salinas, has 9% of its total area committed to incorporated uses. The Central Salinas Valley Planning Area, with 0.5% of its total area committed to incorporated uses, contains the Cities of Greenfield, Gonzales, Soledad, and King City.

ISSUES FOR LAND USE

1. How much land should be identified and set aside for each of the basic use categories of residential, commercial, industrial, agricultural, public/quasi-public, and unimproved land/watershed areas?

2. To what extent should existing land uses be built upon as the foundation of the County's future planning efforts? For example, should new commercial areas be designated or should existing commercial areas be expanded?

3. What types of existing land uses should be converted to urban use categories in order to accommodate the County's growth and development? How then, should the County's largely rural atmosphere be maintained?

4. How can conflicts between different types of land use be avoided? For example, should a noise-producing auto dismantling yard be allowed near a park or a residential area?

5. Should residential development be concentrated wherever possible to use land more efficiently and to allow for more effective provision of public services?

6. Should industrial development be centralized to have access to the County's transportation system or should industrial uses be dispersed to minimize the effects of safety hazards and/or noise, air, and water pollution?

7. As the County develops, there will be a need for more recreational areas, more open space, and more public facilities. In what manner and in what locations should opportunities for public use of land be increased?

8. How can agricultural activities best be protected to ensure continued production?

9. What types of land uses are most compatible with areas of high natural resource value?

GOALS, OBJECTIVES, AND POLICIES FOR LAND USE

GENERAL LAND USE

26 GOAL

TO PROMOTE APPROPRIATE AND ORDERLY GROWTH AND DEVELOPMENT WHILE PROTECTING DESIRABLE EXISTING LAND USES.

Objective

26.1 Direct development and conservation efforts in the County through use of the planning process.

Policies

26.1.1 The County, in coordination with the cities, shall manage the type, location, timing, and intensity of growth in the unincorporated area.

26.1.2 The County shall discourage premature and scattered development.

26.1.3 The County shall designate adequate sites for a range of future land uses, ensuring balanced development of the County.

26.1.4 The County shall designate growth areas only where there is provision for an adequate level of services and facilities such as water, sewerage, fire and police protection, transportation, and schools. Phasing of development shall be required as necessary in growth areas in order to provide a basis for long-range services and facilities planning.

26.1.4.3 A standard tentative subdivision map and/or vesting tentative and/or Preliminary Project Review Subdivision map application for either a standard or minor subdivision shall not be approved until:

(1) The applicant provides evidence of an assured longterm water supply in terms of yield and quality for all lots which are to be created through subdivision. A recommendation on the water supply shall be made to the decision making body by the County's Health Officer and the General Manager of the Water Resources Agency, or their respective designees.

(2) The applicant provides proof that the water supply to serve the lots meets both the water quality and quantity standards as set forth in Title 22 of the California Code of Regulations, and Chapters 15.04 and 15.08 of the Monterey County Code subject to the review and recommendation by the County's Health Officer to the decision making body.

26.1.5 The County shall designate future land uses in a manner which will achieve compatibility with adjacent uses.

26.1.6 Development which preserves and enhances the County's scenic qualities shall be encouraged.

26.1.7 Where appropriate, the County shall develop standards and/or procedures to control development siting, design, and landscaping.

26.1.8 Development in scenic road and highway corridors shall be governed by policies located in the transportation section of this General Plan.

26.1.9 In order to preserve the County's scenic and rural character, ridgeline development shall not be allowed unless a special permit is first obtained. Such permit shall only be granted upon findings being made that the development as conditioned by permit will not create a substantially adverse visual impact when viewed from a common public viewing area. New subdivisions shall avoid lot configurations which create building sites that will constitute ridgeline development. Siting of new development visible from private viewing areas, may be taken into consideration during the subdivision process.

Definition of Ridgeline Development

Development on the crest of a hill which has the potential to create a silhouette or other substantially adverse impact when viewed from a common public viewing area.

26.1.10 The County shall prohibit development on slopes greater than 30%. It is the general policy of the County to require dedication of scenic easement on a slope of 30% or greater. Upon application, an exception to allow development on slopes of 30% or greater may be granted at a noticed public hearing by the approving authority for discretionary permits or by the Planning Commission for building and grading permits. The exception may be granted if one or both of the following findings are made, based upon substantial evidence:

A) there is no alternative which would allow development to occur on slopes of less than 30%; or,

B) the proposed development better achieves the resource protection objectives and policies contained in the Monterey County General Plan, accompanying Area Plans and Land Use Plans, and all applicable master plans. (Ref. Policies)

26.1.11 The County shall encourage clustering in all development projects, where appropriate.

26.1.12 In order to preserve its open space and rural character, the County shall encourage the voluntary restriction of development through dedication of scenic or conservation easements, transfer of development rights and other appropriate techniques.

26.1.13 The County shall encourage infilling on vacant non- agricultural lands within existing developed areas and shall encourage new development within designated urban service areas. Infilling development shall be compatible with surrounding existing development.

26.1.14 The County shall encourage that development be annexed to existing cities where annexation will facilitate the logical and economical provision of services, if annexation is feasible.

26.1.15 Only very low density development shall be allowed outside of urban service areas, areas of development concentration designated in accordance with the County's adopted *Growth Management Policy* (Appendix A), and outside of the County's existing unincorporated communities.

26.1.16 Accessibility needs of the handicapped shall be incorporated into all development proposals.

26.1.17 The placement of off-site advertising shall be discouraged due to visual clutter, scenic intrusion, and safety concerns, and may be considered only within the County's retail, general commercial, and industrial zoning districts.

26.1.18 Development proposals which are consistent with the land use plan designation (Figures 13a, 13b, and 13c) may be denied due to factors including, but not limited to, lack of public facilities and services, infrastructure phasing problems, water availability and sewage problems, or presence of environmental and/or plan policy constraints which cannot be mitigated.

26.1.19 All permanent structural development (residential, commercial, industrial) proposed in electrical transmission corridors or rights-of-way shall be prohibited.

26.1.20 All exterior lighting shall be unobtrusive and constructed or located so that only the intended area is illuminated, long range visibility is reduced, and off-site glare is fully controlled.

RESIDENTIAL

27 GOAL

TO ENCOURAGE VARIOUS TYPES OF RESIDENTIAL DEVELOPMENT THAT ARE ACCESSIBLE TO MAJOR EMPLOYMENT CENTERS AND AT LOCATIONS AND DENSITIES WHICH WILL ALLOW FOR PROVISION OF ADEQUATE PUBLIC SERVICES AND FACILITIES.

Objective

27.1 Designate adequate sites for a variety of residential development.

Policies

27.1.1 Sufficient areas for residential use shall be designated consistent with the County's growth policies and projections.

27.1.2 The County shall limit residential development in areas which are unsuited for more intensive development due to the presence of physical hazards and development constraints, the necessity to protect natural resources, and/or the lack of public services and facilities.

27.1.3 Residential development should be concentrated in growth areas.

27.1.4 If appropriate, high density residential areas shall be designated closest to urban areas or unincorporated communities.

Objective

27.2 Provide for adequate access to and circulation within residential areas.

Policies

27.2.1 Residential areas shall be located with convenient access to employment, shopping, recreation, and transportation. High density residential areas should also be located with convenient access to public transit.

27.2.2 Adequate circulation rights-of-way shall be delineated within each residential area.

Objective

27.3 Ensure compatibility between residential development and surrounding land uses.

Policies

27.3.1 The County shall discourage those new land use activities which are potential nuisances and/or hazards within and in close proximity to residential areas.

27.3.2 The County shall encourage that open space be provided within and on the fringes of residential areas.

27.3.3 Residential subdivisions shall be sited with sufficient distance from normal agricultural activities to prevent these activities from becoming hazardous or attractive nuisances to the residents of the subdivisions.

27.3.4 In areas designated for agricultural uses where development of legally subdivided land would promote incompatible residential development, the County shall solicit and encourage the voluntary donation of conservation easements or other development restrictions to the County or to a qualified private nonprofit organization in order to preserve the agricultural use of the land.

COMMERCIAL

28 GOAL

TO ENCOURAGE COMMERCIAL DEVELOPMENT IN CLOSE PROXIMITY TO MAJOR RESIDENTIAL AREAS AND TRANSPORTATION ROUTES.

Objective

28.1 Designate centers of concentrated commercial use which accommodate a mix of commercial activities and serve the County's needs.

Policies

28.1.1 The County shall designate land for commercial activities sufficient to support and serve the projected population while attempting to minimize conflicts between commercial and other uses.

28.1.2 Commercial uses shall be developed in a compact manner; no new areas of strip commercial development shall be allowed.

28.1.3 The County shall designate sufficient area for a variety of commercial centers, including services and supplies needed to maintain and operate residential and commercial structures.

28.1.4 A mix of residential and commercial uses shall be allowed in instances where good site design and utilization of the property can be demonstrated.

28.1.5 Adequate provision shall be made for professional offices, where appropriate.

Objective

28.2 Provide for adequate access to commercial developments.

Policies

28.2.1 In areas of anticipated commercial growth and expansion, provision shall be made for designation of access routes, street and road rights-of-way, off street parking, and pedestrian walkways.

28.2.2 Commercial areas shall be designated in a manner which offers convenient access.

28.2.3 Provision shall be made, wherever possible, for separate facilities adequate for the movement of pedestrians, transit vehicles, automobiles, and service vehicles.

INDUSTRIAL

29 GOAL

TO ENCOURAGE INDUSTRIAL DEVELOPMENT WHICH MAINTAINS THE QUALITY OF THE ENVIRONMENT AND IS ECONOMICALLY BENEFICIAL TO THE AREA, LOCATED IN CLOSE PROXIMITY TO MAJOR TRANSPORTATION ROUTES, AND WHICH IS COMPATIBLE WITH SURROUNDING LAND USES.

Objective

29.1 Designate sites for industrial development which will maintain the County's environmental quality and encourage the expansion of the economic base.

Policies

29.1.1 Industrial development which is compatible with Monterey County's environment shall be encouraged.

29.1.2 The County shall require that industrial areas be as compact as possible and, where feasible, designate planned industrial park areas.

29.1.3 In order to maintain a healthy environment, the County shall allow only those industries which do not violate the County's environmental quality standards.

29.1.4 The County shall work to minimize nuisances in industrial areas.

Objective

29.2 Ensure adequate access for industrial land uses.

Policies

29.2.1 The County shall designate industrial land use locations which provide adequate access to appropriate transportation facilities and resources.

29.2.2 Industrial areas shall be designated which have adequate and convenient access to population centers except where safety factors are involved.

Objective

29.3 Ensure that industrial areas are compatible with and protected from surrounding proposed and existing land uses.

Policies

29.3.1 Industrially designated areas shall be compatible with surrounding land uses.

29.3.2 The County shall designate an amount of industrial land sufficient to meet foreseeable industrial needs.

29.3.3 The County shall discourage the conversion of designated vacant industrial lands to other permanent land uses.

29.3.4 In designating industrial areas, the County shall consider the proximity of other compatible land uses which have similar levels of utility and service requirements.

AGRICULTURAL

30 GOAL

TO PROTECT ALL VIABLE FARMLANDS DESIGNATED AS PRIME, OF STATEWIDE IMPORTANCE, UNIQUE, OR OF LOCAL IMPORTANCE FROM CONVERSION TO AND ENCROACHMENT OF NON-AGRICULTURAL USES.

Policies

30.0.1 The County shall prevent non-agricultural uses which could interfere with the potential of normal agricultural operations on viable farmlands designated as prime, of statewide importance, unique, or of local importance.

30.0.2 The County shall require that permanent, well- defined buffer areas be provided as part of new non-agricultural development proposals which are located adjacent to agricultural land uses on viable farm lands designated as prime, of statewide importance, unique, or of local importance. These buffer areas shall be dedicated in perpetuity, shall be of sufficient size to protect agriculture from the impacts of incompatible development and to mitigate against the effects of agricultural operations on adjacent land uses, and shall be credited as open space.

30.0.3 The County shall allow division of viable farmland designated as prime, of statewide importance, unique, or of local importance only for exclusive agricultural purposes, when demonstrated not to be detrimental to the agricultural viability of adjoining parcels.

30.0.4 The County shall make every effort to preserve, enhance, and expand viable agricultural land uses on farmland designated as prime, of statewide importance, unique, or of local importance through application of "agricultural" land use designations and encouragement of large lot agricultural zoning.

30.0.5 The County shall support other policies that provide tax and economic incentives which will enhance competitive capabilities of farms and ranches, thereby insuring long-term preservation, enhancement, and expansion of viable agricultural lands. Examples of these policies and programs may include the following:

- o establishment of a program to purchase and lease back agricultural lands near urban or developing areas for continued agricultural use.
- o use of voluntary restriction to agricultural uses through contributions of conservation easements or other appropriate techniques.
- o use of Williamson Act Contracts.

30.0.6 Greenhouses, mushroom farms, and similar agriculture enterprises that are not on-site soil dependent or which degrade soil capabilities shall not be located on the County's prime farmlands and farmlands of statewide importance. This policy shall not limit uses accessory to soil dependent uses.

30.0.7 Where it can be demonstrated to enhance agricultural operations in areas designated for agricultural land use, farm labor housing may be considered subject to appropriate health, environmental, and growth management policy review. Farm labor housing projects shall be located to minimize the conversion of viable agricultural lands and shall be consistent with the nature of the surrounding land uses.

PUBLIC/QUASI-PUBLIC

31 GOAL

TO ENCOURAGE FUTURE DEVELOPMENT ONLY IN THOSE AREAS WHERE THERE IS PROVISION FOR AN ADEQUATE LEVEL OF PUBLIC SERVICES AND FACILITIES.

Objective

31.1 Ensure coordinated, on-going planning for public services and facilities.

Policies

31.1.1 The County shall designate for future development only those areas which have adequate public services and facilities capacity or will provide them prior to development.

31.1.2 The County shall designate adequate locations for future development of needed public services and facilities.

32 GOAL

TO ENCOURAGE PROPER PLANNING OF PUBLIC LANDS SO THAT USES ON PUBLIC LANDS ARE COMPATIBLE WITH EXISTING AND PLANNED USES ON ADJACENT PRIVATELY-OWNED LANDS.

Objective

32.1 Review and coordinate the planning of public lands.

Policies

32.1.1 The County shall coordinate its planning activities with and request to be included in the planning efforts undertaken by other public agencies with landholdings in Monterey County.

32.1.2 The County shall distribute copies of its General Plan to each public agency with landholdings in the County, requesting that any planned public land uses be compatible with private uses on adjacent lands.

32.1.3 The planning of adjacent public and private lands should be undertaken as a joint effort between all agencies involved.

33 GOAL

TO ENCOURAGE THE USE OF THE COUNTY'S MAJOR INLAND WATER BODIES FOR MULTIPLE PURPOSES SUCH AS WATER SUPPLY, FLOOD CONTROL, RECREATION, AND HYDROELECTRIC GENERATION.

Objective

33.1 Identify desirable levels of multiple use and known limitations to multiple use of the County's major water bodies.

Policies

33.1.1 The County, based on recommendations developed jointly by appropriate departments and agencies, shall recommend priorities for multiple use of the major water bodies.

33.1.2 Compatibility shall exist between surrounding land uses and multiple uses of major water bodies.

OPEN SPACE

34 GOAL

TO ENCOURAGE THE PROVISION OF OPEN SPACE LANDS AS PART OF ALL TYPES OF DEVELOPMENT INCLUDING RESIDENTIAL, COMMERCIAL, INDUSTRIAL, AND PUBLIC.

Objective

34.1 Ensure that open space needs are met through operation of the planning process.

Policies

34.1.1 The County shall encourage clustering of all types of development, where appropriate, in order to allow for a portion of each project site to be dedicated as permanent open space.

34.1.2 The County shall allow on-site development density credit for developable lands placed in permanent open space as part of a development project approval. Use of on-site development density credit will be allowed only if environmental and health factors permit.

34.1.3 Wherever possible, open space lands provided as part of a development project should be integrated into an areawide open space network.

34.1.4 Open space areas should be used as a buffer between land uses of different types and/or intensities.

34.1.5 Open space areas shall be designated, wherever possible, on the perimeter of all development under taken by the County.

34.1.6 The County, in coordinated efforts with other public agencies, shall urge that all development projects undertaken by public agencies include an open space buffer area on the perimeter of the project site.

34.1.7 The County shall support the creation of private, nonprofit land trusts and conservation organizations to receive by voluntary donation or purchase, development rights on any lands to be preserved as open space.

WATERSHED AREAS

35 GOAL

TO RECOGNIZE THE SIGNIFICANCE OF WATERSHED AREAS IN PROTECTING AND MAINTAINING THE COUNTY'S NATURAL RESOURCES AND RURAL CHARACTER.

Objective

35.1 Ensure protection of the County's critical watershed.

Policies

35.1.1 The County shall ensure that land uses in and surrounding critical watershed areas will not compromise the important resource value of these areas.

35.1.2 Any development in critical watershed areas shall be designed, sited, and constructed in a manner which minimizes negative effects on the watershed.

CURRENT HOLDING CAPACITY AND ZONING

The calculation of current holding capacity--defined as the sum of existing and potential development under current zoning regulations--provides a general indication of the amount of development possible if every parcel in the County were developed to the maximum extent. If development potential exceeds or does not meet desirable levels in certain areas, it may be necessary to increase or restrict the amount of land planned and zoned for various uses.

ESTIMATION OF HOLDING CAPACITY

Existing Development

Total existing residential development in the County amounts to 95,684 units: 28,109 units in the unincorporated area and 67,575 units in the cities. Existing commercial development totals 2,125 acres: 560 acres in the unincorporated area and 1,565 acres in the cities. Total existing industrial development amounts to 8,019 acres: 7,227 acres in the unincorporated area and 792 acres in the cities.

Development Potential

Based on the County Assessor's records, there are currently 10,339 vacant parcels in the unincorporated area and 2,432 vacant parcels in the cities. Using 1976 Census population per household figures for the County, minimum development of these parcels would house an additional 37,000 persons--30,000 in the unincorporated area and 7,000 in the cities.

Based on current zoning regulations, maximum development potential for the entire County has been estimated. The total residential development potential is 246,329 units: 229,377 units in the unincorporated area (including 51,394 potential farm labor units) and 16,952 units in the cities. Total commercial development potential is 626 acres: 337 acres in the unincorporated area and 289 acres in the cities. Total industrial development potential is 3,209 acres: 2,252 acres in the unincorporated area and 957 acres in the cities.

Total Holding Capacity

The total residential holding capacity for the County is 342,013 units: 257,486 units in the unincorporated area (including 51,394 farm labor units) and 84,527 units in the cities. Total commercial holding capacity is 2,751 acres: 897 acres in the unincorporated area and 1,854 acres in the cities. By contrast, the majority of the County's industrial holding capacity is in the unincorporated area. Of the County's total 11,228 acre industrial holding capacity, 9,479 acres are in the unincorporated area and 1,749 acres are in the cities.

Based on residential development potential, it is possible for the County's ultimate population to reach 991,838 persons--this represents more than three times the population of the County as tabulated during the 1980 Census. Based on existing city boundaries and existing land use regulations in both the County and the cities, this ultimate population would be apportioned as follows: 746,709 persons in the unincorporated area (including 149,043 persons in farm labor units) and 245,129 persons in the cities. Any significant annexations of territory by the cities would shift the balance of this population away from the unincorporated areas and into the cities.

ISSUES FOR CURRENT HOLDING CAPACITY AND ZONING

1. The County's potential for development of residential uses under current zoning is too high and should be reduced.

2. Unlike commercial and industrial development, residential development potential is spread throughout the County. Should development potential be reduced in areas where development is not desirable or feasible?

3. The total commercial holding capacity of the unincorporated area is one-half that of the cities. Should more commercial development be allowed in the unincorporated area?

4. The total industrial holding capacity of the unincorporated area is five times that of the cities. Should the amount of land available for industrial development be reduced?

GOALS, OBJECTIVES, AND POLICIES FOR CURRENT HOLDING CAPACITY AND ZONING

36 GOAL

TO MAINTAIN CONSISTENCY BETWEEN THE GENERAL PLAN AND ITS IMPLEMENTING REGULATIONS.

Policies

36.0.1 As soon as possible after adoption of the updated General Plan, the County shall revise its zoning, subdivision, and other ordinances related to implementation of the plan to ensure their consistency with the General Plan's goals, objectives, policies, and standards for population density and building intensity.

36.0.2 Lots which have been tentatively approved and on which a final map can still be timely filed in accordance with state law at the time of the adoption of this General Plan, shall be incorporated into this General Plan and shall be hereby recognized as a legal lot of record.

36.0.3 Areas which have further division or additional density restrictions in place by zoning designation on the date of adoption of this general plan shall be executed in accordance with such restrictions and zoning designation as part of the implementation process.

36.0.4 Except in areas designated as medium or high density residential or in areas designated as commercial or industrial where residential use may be allowed, an applicant wishing to apply for a subdivision under this General Plan must use the following procedures to calculate the maximum density that can be considered under the Plan and thereby prepare an application consistent with or less than the maximum allowable density:

A One factor in density determination shall be the land use designation. The maximum density allow able under the General Plan for a parcel shall be divided into the total number of acres found within the parcel. For example, a 100-acre parcel with a maximum General Plan density of 1 unit per 2.5 acres would have a General Plan density of 40 sites.

B The slope of the property shall be determined and the slope-density formula defined in this Plan applied. For example, a 100-acres parcel might consist of 50 percent of the land having a slope of over 30 percent and the other 50 percent below 19 percent. The maximum density allowable on that parcel as calculated according to slope would be 50 sites.

C All of the policies of the Plan must be applied to the parcel. Any policies resulting in a decrease in density must be tabulated. This decrease in density would then be subtracted from the maximum density allowable under the slope formula.

D The maximum density allowable according to the General Plan land use designation (Step A above) and the maximum density allowable according to the Plan policies (Steps B and C above) shall then be compared. Whichever of the two densities is the lesser shall be established as the maximum density allowable under this Plan.

E The calculations of maximum density made by an applicant will be reviewed during public hearings prior to the approval of any permits or quota allocation pursuant to this Plan.

TRANSPORTATION

In an era of decreasing funds, increasing costs, and increasing demands on transportation it is imperative to correlate Monterey County's land use activities with the capabilities of its transportation systems. By incorporating transportation information into the land use planning process, optimum use can be made of existing transportation systems, and future system expansions can be anticipated and implemented in a timely fashion.

ROAD AND HIGHWAY TRANSPORTATION

Existing Road System

Monterey County's transportation systems are dominated by a 2,274-mile network of county roads, state highways, and city streets. The 1,278 miles of county roads are by far the largest component of the network and serve functions ranging from local roads to arterials. Most travel between cities, however, takes place on the County's 288 miles of state highways. Highways 1, 68, 101, and 156 carry the highest highway traffic loads in the County while Highways 25, 146, 183, 198, and 218 serve minor arterial functions similar to major county roads. The County's state highways and major roads are shown in Figure 11. Locations of the state highways indicate their primary roles as intercity travel corridors, with county roads connecting more remote areas with cities and highways.

Use of Roads and Highways

Two types of travel data, Daily Vehicle Miles of Travel (VMT) and Average Daily Traffic (ADT), reveal more information about the use of roads and highways. Analysis of VMT data compiled between 1973 and 1979 for the County indicates several major travel trends. During the 1973-1979 period, VMT for the entire system increased 18%, with travel on state highways increasing 12%. Between 1975 and 1979 however, while use of urban systems increased 14%, use of rural county roads and highways increased only 5%, a much slower rate of increase for long-distance driving.

The roads and highways having the most significant increases in Average Daily Traffic between 1970 and 1979 show a trend of increasing traffic loads to, from, and within the County's major urban centers: the Monterey Peninsula area, Salinas, and Watsonville (just north of the county line). Of particular note are the traffic increases in the Highway 68 corridor between Salinas and the Peninsula, along Carmel Valley Road (particularly toward its western end), and Highway 1 in the vicinity of Carmel Hill.

Road and Highway Performance

Performance of the County's roads and highways is evaluated based on level of service (LOS) calculations. Six levels of service represent varying roadway conditions ranging from ideal, LOS "A," to forced flow, LOS "F." The Monterey County Transportation Commission objective for optimum driving conditions is LOS "C" or better. Examples of County roads whose present or future traffic loads indicate unacceptable levels of service include portions of Blanco Road, Carmel Valley Road, Corral de Tierra Road, Echo Valley Road, Elkhorn Road, Hall Road, Laureles Grade, Salinas Road, San Juan Road, and San Miguel Canyon

Road. All are projected to have LOS "E" or "F." Deficient levels of service also exist or are predicted for portions of State Highways 1, 68, and 156.

Road performance is also evaluated by safety, which usually, but not always corresponds to levels of service. State Highway 101, north from Espinosa Road is an example where the level of service calculated, LOS "C," does not accurately reflect the hazards associated with driving it. The section is deemed deficient not because of level of service, but because of its high accident rate.

Road and Highway Improvements

The County's Regional Transportation Plan (RTP) recommends system improvements to upgrade nearly all of the road sections mentioned as deficient by the year 2000. This long-term planning document is backed up by two short-term implementation plans, the Transportation Improvement Program (TIP) and the Transportation Systems Management Element (TSME). The countywide TIP, developed jointly by AMBAG and MCTS, implements RTP plans through a staged multi-year program of transportation improvements. The regional TSME, developed by the Monterey County Transportation Commission (MCTC), implements strategies to improve the people-moving capabilities of the existing system without requiring expensive new facilities.

The TSME program was developed to meet the challenges of ever-decreasing transportation funds and ever-increasing construction costs. Decreasing funds reflect decreases in gas tax revenues, caused by less gasoline being used in recent years and the fact that gasoline is taxed on a fixed price per gallon basis. Since state and local transportation construction projects are financed primarily by federal and state gas taxes, planned construction projects have been cut back dramatically. To compound this problem in Monterey County, an inequitably high share of the available funds are being directed toward more highly populated areas in other parts of the state. Thus, with the exception of the Toro Park interchange on Highway 68, none of the major projects recommended in the RTP are expected to be funded in the near future.

Aesthetic improvements on the County's most scenic roads and highways are provided for through the Scenic Highway Program, administered through the Planning Department. Scenic treatment is accorded to both the roadway and corridor, and for official status the Scenic Route or Highway must be approved by the State.

Monterey County has 97.4 miles of officially designated State Scenic Highways, which include portions of Highways 1, 68, and 156. In addition, the County has 17.0 miles of County Scenic Routes, which include Laureles Grade and Interlake Road. No additions have been made to the County's Scenic Highway system since 1973.

FIGURE 11
STATE HIGHWAYS & MAJOR ROADS

PUBLIC TRANSIT SERVICES

Monterey-Salinas Transit

The merging in 1981 of Monterey Peninsula Transit and the Salinas Transit System produced Monterey-Salinas Transit (MST), a publicly owned and operated transit system. MST provides essentially the same services as did the two separate systems, but with greater operating efficiency. The current fleet of 52 buses provides service to the greater Monterey and Salinas areas, plus routes to Carmel Valley and North County. Service was expanded in 1982 with the arrival of 21 new buses. Transit ridership in Monterey County has increased nearly 300% since 1975, with at least a 40% increase between 1979 and 1980.

Greyhound Lines

Greyhound Lines is an intercity passenger carrier with sixteen bus stops in Monterey County. Local service is provided between the Monterey Peninsula cities, Salinas, and other Salinas Valley cities. Intra and interstate passenger services are also provided.

AIR TRANSPORTATION

Monterey County is served by three public air facilities, Monterey Peninsula Airport, Salinas Municipal Airport, and Mesa Del Rey Airport (King City). The two latter airports are owned and operated by their respective cities while the Monterey airport is owned and operated by the Monterey Peninsula Airport District, a separate jurisdiction. A brief summary of these airports is provided in Table 8. General aviation use of these airports has been increasing steadily throughout the 1970s, but only Monterey Peninsula is served by certified air carriers.

Monterey County also contains over thirty private airstrips and agricultural landing fields, as well as three military airfields.

RAILROAD, WATER, PIPELINE, AND BICYCLE TRANSPORTATION

AMTRAK Passenger Service

Rail passenger service is provided to Monterey County by two AMTRAK trains. One is the Coast Starlight, a daily train in each direction between Los Angeles and Seattle. Salinas is the train's only stop in Monterey County, allowing connections to Los Angeles or San Jose and Oakland. The other train, called the Spirit of California, stops in Salinas en route between Sacramento and Los Angeles. There is currently no direct rail passenger service between Monterey County and San Francisco, but reinstatement of the Del Monte Express between Monterey and San Francisco is being considered.

Southern Pacific Transportation Company Freight Service

All rail freight service in Monterey County is provided by Southern Pacific. Freight stations are located at Castroville, Gonzales, Salinas, and Watsonville Junction (Pajaro). There are no current plans for expanding rail freight service in the County.

Water Transportation

The two harbors in Monterey County, Monterey Harbor and Moss Landing Harbor, are both classified as small craft harbors, both serving commercial fishing vessels and pleasure craft. The number of commercial and pleasure craft are 250 each at Monterey Harbor, while at Moss Landing the numbers are 370 and 175, respectively. Both harbors take in similar tonnages of fish, each netting in the range of 5,000 to 10,000 tons per year. Demand for moorings in both harbors exceeds the spaces available, with waiting periods over five years expected for berths. Consequently, each harbor has plans to expand in the near future.

Pipeline Transportation

Natural gas and crude oil are the only two commodities transported by pipeline for any great distance in Monterey County. Pacific Gas and Electric (PG&E) owns and operates pipelines to distribute and supply natural gas to most communities in the greater Monterey Peninsula area, in North County, and in the Salinas Valley. PG&E also uses an underwater pipeline to supply oil to its Moss Landing Power Plant. Oil is unloaded from ocean tankers offshore from Moss Landing and transported underwater to storage tanks behind the power plant.

Another oil pipeline, owned and operated by Mobil Oil, transports about 3,000 barrels of crude oil per day from oil fields near San Ardo to Estero Bay in San Luis Obispo County.

Bicycle Transportation

Recently the Monterey County Transportation Study completed a comprehensive map and listing of existing and proposed bikeways in Monterey County, including the cities. Development of bicycle facilities is primarily occurring in the greater Monterey Peninsula cities, with current plans to close gaps between city networks.

The City of Salinas is in the process of developing a bikeway system plan. While the greatest potential for bicycle use is for intra-city movements, efforts are underway to improve bicycling conditions along the County's most scenic routes, particularly Highway 1 along the Big Sur Coast.

TABLE 8
PUBLIC AIRPORTS IN MONTEREY COUNTY

ISSUES FOR TRANSPORTATION

1. The trend of increasing traffic loads to, from, and within the County's major urban centers has resulted in congestion on many of the County's major roads and highways. How can increases in traffic be best accommodated on roads serving growth areas?

2. State and local funding of major road and highway improvement projects may not be forthcoming. How will budget constraints affect implementation of the County's Transportation Plan?

3. Automotive and truck transportation modes remain highly susceptible to fluctuations in price and availability of fuel, posing potential threats to the County's tourist and agricultural economies, respectively.

4. Large capacity trucking, as required for industry and commerce, present special highway and surface street access problems.

5. None of the proposed scenic routes in the 1974 Scenic Highway Element have been designated. To what extent should this program be carried out?

6. How can transit use and car pooling be increased or other measures be taken to reduce energy consumption, roadway congestion, and air pollution in Monterey County?

7. Land use compatibility related to noise and safety has become a critical issue at Monterey Peninsula Airport due to increasing pressure for development.

8. Should the County actively pursue reinstatement of the Monterey - San Francisco passenger rail service?

9. What can be done to alleviate the critical shortage of berths in both Monterey and Moss Landing Harbors?

10. The establishment of bicycling as a viable transportation alternative in Monterey County has been hindered by the lack of adequate bicycle facilities such as bikeways and sheltered parking. Where are these facilities most needed?

GOALS, OBJECTIVES, AND POLICIES FOR TRANSPORTATION

37 GOAL

TO PROMOTE A SAFE, EFFECTIVE, AND ECONOMICAL TRANSPORTATION SYSTEM THAT WILL SERVICE THE EXISTING AND FUTURE LAND USES OF THE COUNTY.

Objective

37.1 Coordinate county transportation planning activities with all affected agencies and jurisdictions.

Policies

37.1.1 The County shall conduct land use planning with the understanding that the Monterey County Transportation Commission will integrate transportation planning with local land use plans.

37.1.2 Revisions of the Monterey County Transportation Plan and other regional transportation planning documents should be coordinated with the County's General Plan.

Objective

37.2 Promote optimum use of existing and future transportation facilities.

Policies

37.2.1 Transportation demands of proposed development shall not exceed an acceptable level of service for existing transportation facilities, unless appropriate increases in capacities are provided for.

37.2.2 Land uses requiring concentrated commodity movements shall be located with adequate access to necessary transportation facilities.

37.2.3 Operation and construction of existing and proposed public transportation facilities shall be protected from encroachment by incompatible land uses.

Objective

37.3 Support the safety standards established by transportation-related agencies, and guide land use so as to ensure the safe operation of the County's transportation systems.

Objective

37.4 Reduce the number of miles traveled per person.

Policies

37.4.1 The County shall encourage overall land use patterns which reduce the need to travel.

37.4.2 The County shall encourage the provision, where feasible, of bicycle and automobile storage facilities to be used in conjunction with public transportation.

Objective

37.5 Achieve a comprehensive and diverse transportation system in the County.

Policies

37.5.1 The design and location of new development shall consider and incorporate provisions for appropriate transportation modes.

37.5.2 Public facilities shall be located and designed to allow for convenient access and efficient transport of all intended users.

38 GOAL

TO MINIMIZE THE NEGATIVE IMPACTS OF TRANSPORTATION IN THE COUNTY.

Objective

38.1 Plan for transportation modes and strategies that ensure good air quality, reduce noise, reduce the consumption of fossil fuels, and reduce the need to devote additional lands to transportation use.

Policies

38.1.1 The County shall support the implementation of measures for reducing air pollution from transportation sources.

38.1.2 The effects of road noise on County roads and highways shall be mitigated to comply with all noise control policies of this General Plan.

38.1.3 The County shall encourage travel in non-peak hours.

38.1.4 The County shall encourage transportation alternatives such as bicycles, car pools, transit, and compact vehicles.

38.1.5 Adequate traffic capacity shall be a criterion for development consideration.

ROAD AND HIGHWAY TRANSPORTATION

39 GOAL

TO PROVIDE FOR A ROAD AND HIGHWAY NETWORK TO MEET THE NEEDS OF EXISTING AND ANTICIPATED MOVEMENTS OF PEOPLE AND COMMODITIES.

Objective

39.1 Provide an adequate road system that is within the County's ability to finance and maintain.

Policies

39.1.1 All available public and private sources shall be used for the funding of road and highway development, improvement, and maintenance.

39.1.2 The cost of new roads shall be borne as equitably as possible among benefiting property owners and/or users.

39.1.3 Rights-of-way needed for new roads or expansion of existing roads shall be planned for; land uses that would preclude the timely development of such rights-of-way shall be prohibited.

39.1.4 New development shall be located where there is existing road and highway capacity or where adequate road and highway capacity will be provided.

Objective

39.2 Provide an integrated system of roads and highways that serve land use needs.

Policies

39.2.1 All new road and interior circulation systems shall be designed, developed, and maintained according to adopted County standards.

39.2.2 The needs of bicyclists, pedestrians, utilities, and drainage shall be considered and, where appropriate, provided for on all public rights-of-way.

39.2.3 Proposals to abandon County roads shall address the impacts of abandonment on local land uses identified in the General Plan, and shall also address the impacts of alternate public uses of the rights-of- way, such as bikeways, or horseback riding and hiking trails on adjacent private land.

39.2.4 Additional local and collector roads shall be located and designed so as to minimize disruption of existing development, discourage through auto traffic, and provide for bicycle and pedestrian traffic.

39.2.5 Driveways, mid-block access points, intersections, and on-street parking shall be limited along major roads and highways, where possible.

39.2.6 Pedestrian and bicycle paths shall be separated from major roads and highways, where appropriate, and also shall be provided between adjacent communities, where appropriate.

Objective

39.3 Improve the performance and safety of the County's roads through ongoing traffic monitoring and improvement programs.

Policies

39.3.1 The County shall continue its program of traffic problem identification and shall continue its efforts to improve congested and critical locations.

39.3.2 Traffic on major County roads shall be monitored and carefully studied to identify trends in use, traffic flow, and overall performance.

Objective

39.4 Accommodate the special needs of goods movement on the County's roads and highways while minimizing their negative impacts.

Policies

39.4.1 Priority shall be given to the improvement of highways and arterial roads that carry a significant amount of goods movement, particularly agricultural goods.

39.4.2 Land uses generating significant and regular goods movement shall be provided with easy access to the highways and arterials most capable of carrying large trucks; where feasible, this access shall be complemented by rail access.

39.4.3 On-street truck loading and unloading shall be discouraged on arterials during peak traffic flow hours.

SCENIC HIGHWAYS

40 GOAL

TO MAINTAIN AND ENHANCE A SYSTEM OF SCENIC ROADS AND HIGHWAYS THROUGH AREAS OF SCENIC BEAUTY; THIS WITHOUT IMPOSING UNDUE RESTRICTIONS ON PRIVATE PROPERTY OR CONSTRICTING THE NORMAL FLOW OF TRAFFIC.

Objective

40.1 Incorporate the provisions of existing State Scenic Highway and County Scenic Route corridor Plans into this General Plan. Where appropriate, local area plans may propose additional scenic routes to be officially designated as State Scenic Highways or County Scenic Routes.

Policy

40.1.1 Application to the state for official designations of State Scenic Highways or County Scenic Routes shall be coordinated between all appropriate state and local jurisdictions and affected property owners; the applications shall be com pleted and submitted on a timely basis in accordance with the County's or the state's schedules for completing the required scenic improvements to the right-of-way.

Objective

40.2 Employ a cooperative planning effort among all public and private interests to implement appropriate land use techniques and controls for maintaining the scenic beauty and atmosphere of the scenic corridor.

Policies

40.2.1 Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.

40.2.2 Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density which, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.

Objective

40.3 Ensure that the location, design and construction of the scenic road or highway itself blends into and compliments the accepted scenic corridor.

Policies

40.3.1 The agencies involved in establishing the scenic highway or route, whether they have jurisdiction over the corridor or the right-of-way, shall coordinate their efforts for the integrated design and implementation of the project; this same "team" approach shall also be required for new or relocated roads and highways within all scenic corridors.

40.3.2 The County shall promote special scenic treatment and design within the right-of-way, to include high way directional signs, guardrails and fences, lighting and illumination, provision of scenic outlooks, road lanes, frontage roads, vegetation, grading, and highway structures.

PUBLIC TRANSIT SERVICES

41 GOAL

TO PROMOTE PUBLIC AND/OR PRIVATE TRANSIT SERVICES THAT ARE VIABLE TRANSPORTATION ALTERNATIVES.

Objective

41.1 Encourage a transit system capable of accommodating 5% of all commuter trips by the year 2000.

Policies

41.1.1 The County shall endorse the efforts of transit operators to improve their services and equipment, including aggressive marketing and education.

41.1.2 Developers of major traffic generating activities shall provide fixed transit facilities such as bus shelters and pullouts, consistent with the anticipated demand.

41.1.3 In accordance with land use policies, new development shall be encouraged to concentrate along major transportation corridors and near cities to make transit services to these areas more feasible.

41.1.4 Transit or para-transit services using public funds shall be required to coordinate service with other transit or para-transit operators, for both intra and inter-county transit, to the maximum degree feasible.

Objective

41.2 Promote opportunities for shopping, employment, education, health care, and enjoyment of recreational resources through public and/or private transit use.

Policies

41.2.1 Transit use shall be encouraged through land use designations and zoning which cluster areas of employment, areas of parking, areas of commercial use, and recreation areas, where appropriate. Car pool parking areas shall also be encouraged in land use planning and subsequent subdivision/commercial development review.

41.2.2 Transit and bus parking facilities shall be required at major hotels, motels, convention centers, and other tourist-serving areas.

Objective

41.3 Support door-to-door transportation services to increase the mobility of the handicapped and frail elderly who have substantial difficulty using buses.

Policies

41.3.1 The County shall provide for coordination between all social service transportation providers.

41.3.2 The County shall endorse and where cost-effective, support transit operators' efforts to accommodate low-mobility persons on regularly scheduled public transit.

41.3.3 The County shall continue to provide door-to-door transportation programs for low-mobility groups according to guidelines approved by the Monterey County Transportation Commission.

AIR TRANSPORTATION

42 GOAL

TO PROMOTE SAFE, EFFECTIVE, AND EFFICIENT USE OF EXISTING AND FUTURE AIR FACILITIES.

Objective

42.1 Enhance and encourage safe flight operations at all airports within the County.

Policy

42.1.1 The County shall prohibit land use activities within unincorporated areas which interfere with the safe operation of aircraft.

Objective

42.2 Provide, where feasible, for compatible land uses in areas that may be impacted by airport operations and provide measures to mitigate safety and noise problems in impacted areas.

Policies

42.2.1 The County shall coordinate with the appropriate agencies to investigate impacts of airport operations on surrounding areas.

42.2.2 The County shall implement measures in unincorporated areas that provide for the continued safe operation of airports.

42.2.3 Land uses in the vicinity of public airports shall be consistent with the airports' comprehensive land use plans.

Objective

42.3 Control the location, development and use of private airstrips and agricultural landing fields.

Policy

42.3.1 Private airstrips and agricultural landing fields shall be controlled to ensure that they do not permanently preclude cultivation of prime farmlands or farmlands of statewide importance; that they are outside of flight paths to and from existing airports; and that they do not provide a hazard or annoyance for neighboring areas.

RAILROAD TRANSPORTATION

43 GOAL

TO ENCOURAGE A RAIL SYSTEM THAT OFFERS EFFICIENT AND ECONOMICAL TRANSPORT OF PEOPLE AND COMMODITIES.

Objective

43.1 Protect the potential for future rail transportation.

Policies

43.1.1 Where appropriate, major industrial and commercial centers shall be located and designed to accommodate future rail support facilities.

43.1.2 The County shall encourage passenger rail service to urban centers, where feasible.

WATER TRANSPORTATION

44 GOAL

TO PROMOTE SAFE, CONVENIENT, AND APPROPRIATE WATER TRANSPORTATION FOR MONTEREY COUNTY.

Objective

44.1 Encourage the continued operation and orderly expansion of harbor facilities.

Policies

44.1.1 The expansion of the harbors or their facilities shall mitigate adverse environmental impacts on marine and shoreline habitats.

44.1.2 Land use activities in the immediate vicinity of harbors shall be compatible with the continued optimum commercial and recreational operations of the harbor.

44.1.3 Plans for significant increases in harbor and adjacent activities shall address impacts on land-based transportation modes.

Objective

44.2 Oppose construction or operation of mooring facilities posing significant hazards or threats to marine or coastal resources.

BICYCLE TRANSPORTATION

45 GOAL

TO PROVIDE FOR A SAFE, CONVENIENT BICYCLE TRANSPORTATION SYSTEM INTEGRATED WITH OTHER TRANSPORTATION MODES.

Objective

45.1 Map an integrated system of suggested bicycle routes for Monterey County as part of each area plan, and use the map as an initial step for establishing a comprehensive bicycle plan.

Policies

45.1.1 The comprehensive bicycle plan shall be coordinated among all appropriate private and public interests and agencies.

45.1.2 Primary emphasis for establishing bicycle routes shall be within urban areas.

45.1.3 Bicycling shall be encouraged as a viable transportation mode for visitor-serving areas.

45.1.4 Bicycle routes in transportation corridors shall be improved, where feasible.

45.1.5 Construction or expansion of all major arterials shall consider separate bike paths.

Objective

45.2 Promote a bicycle system integrated with other transportation modes.

Policies

45.2.1 All visitor-serving locations shall be encouraged to provide adequate and secure bicycle parking facilities.

45.2.2 Multi-modal transfer facilities, such as park-and- ride lots, should provide adequate and secure bicycle parking facilities.

PUBLIC SERVICES AND FACILITIES

Because of their high costs and lasting impacts, provision of public services and facilities has become an issue of major importance. Careful planning for public services and facilities is needed to avoid uncontrolled growth and to ensure efficient use of scarce public funds. A brief information summary of the County's most important service and facility categories is provided below.

EMERGENCY SERVICES (POLICE AND FIRE PROTECTION)

Fire protection services are provided through special districts and by local residents on a volunteer basis. Almost all special districts organized for fire protection services rely heavily on volunteer help. It should be noted that special districts and volunteer fire companies provide structural fire protection while the California Department of Forestry is charged with wildland fire protection services.

There are 21 organizations which provide fire protection services, yet many parts of the County are without structural fire protection. Most of the unprotected areas are in remote and sparsely populated portions of the County. However, there are some exceptions--most notably North County near Pajaro, the Monterey Peninsula in the Monterey II area, and South County near San Lucas and Bradley.

The most important current issue is not how to provide more fire protection services but how to keep the existing ones. Property tax revenues, a traditional funding source, have been reduced substantially. Clearly, the potential for alternative revenue sources and improving efficiency in service delivery must be evaluated.

In contrast to fire protection services which are provided through many independent self-governing districts, the County provides almost all of its police services through the Sheriff's Office. This office is also charged with operating the county jail facilities. The many duties of the Sheriff include uniformed patrol, crime investigation, and crime prevention.

The County's growth and development patterns as expressed in the General Plan will affect the availability of police services. Concentrated growth will reduce response times and increase the efficiency of vehicle patrols, while scattered development creates larger service areas and increases response times.

As the County's population increases so will the need for Sheriff's deputies. Also, emphasis should be placed on crime prevention techniques through an aggressive promotion of the neighborhood watch program and public awareness programs.

EDUCATIONAL FACILITIES

The County provides its public educational services through 22 elementary school districts, seven high school districts, and two community college districts. There are also 31 private primary, secondary, and post-secondary educational facilities located throughout the County. Because of enrollment increases projected for some of the public schools, expansion is planned in the near future in the Alisal, Chualar, King City, Monterey Peninsula, Spreckels, Salinas High, and Santa Rita School Districts.

HUMAN SERVICES (HEALTH, MEDICAL, AND SOCIAL SERVICES)

Almost all areas of the County have access to adequate levels of human services such as acute care hospitals, convalescent homes, mental health facilities, and public health and social services. However, in the more remote rural areas of the County, human services tend to be less available. In these areas, human services providers have targeted high risk groups in order to assure their access to services. Targeted groups/services include protective services to children and support services for parents of small children and for the elderly in areas such as nutrition, housing, transportation, in-home care, and medical care.

PARK AND RECREATION FACILITIES

Almost 14 percent of the County's land area, 293,781 acres, is devoted to park and recreation facilities operated by various governmental entities. The county parks system, managed by the Parks Department, makes up about 10 percent of the County's total park acreage. There are currently eight county regional parks in the County which offer a rich variety of recreational opportunities for residents and tourists. Expanded park and recreational opportunities must be provided to accommodate future needs within the County.

HISTORIC PRESERVATION

Preservation of the County's historic and cultural resources, like its natural resources, has become an important planning issue. Monterey County has had a particularly rich historic past and contains 49 sites of national and/or state significance. In addition to those historic sites on national and state registers, the County has identified about 220 sites on the County historic inventory.

The County recognizes the need to discover and identify places of historical significance and preserve the physical evidence of its historic past. Therefore, it has initiated the development of a countywide historic preservation ordinance. Through the Parks Department's Historical Coordinator and Historical Advisory Committee, a set of policies has been developed aimed at preserving those sites which have proven historical significance. All the policies stress provision of incentives to property owners such as property tax reductions and other forms of subsidy. These policies constitute the County's Historic Preservation Plan.

WATER SERVICE

Most of the water used in County residences, business and industry is obtained from groundwater sources. Wells which are used to obtain groundwater are operated by many different entities: cities, special assessment districts, investor-owned utilities, mutual water companies, and individual residents. The existence of so many water providers makes prudent water management a difficult, yet critical, task.

WASTEWATER TREATMENT PLANT FACILITIES

There are two means of sewage disposal in Monterey County: septic disposal systems and wastewater treatment plant systems. A septic disposal system, requiring a leach field, generally lends itself to low density residential development. On the other hand, a wastewater treatment plant system, having the capacity to process large amounts of sewage, allows for more concentrated development. Wastewater treatment plants facilities are, therefore, the key to the kinds of concentrated and directed development advocated in the County's adopted Growth Management Policy.

There are 26 wastewater treatment plants serving Monterey County providing various levels of sewage treatment. The largest plant, supplying services to Pajaro and Las Lomas, is located in Watsonville. Many of the County's treatment plants are operating at either design or operating capacity. This means that there is a limit to the number of future hookups to these plants. The lack of capacity for effective sewage treatment in the County is expected to hinder the kind of concentrated development desired for affordable housing and efficient land use.

SOLID WASTE DISPOSAL

There are 15 solid waste disposal sites located throughout the County accepting about 2,908 tons of solid waste per day. Of these sites, two are privately owned and operated, eight are owned and operated by the County, one is city operated, one is operated by a special district, and three are owned and operated by the U.S. Government. In the near future, it is likely that the Jolon Road, the Johnson Canyon Road, and the Lewis Road landfills will become privately operated rather than be County operated.

Solid Waste Management Plan

The Monterey County Solid Waste Management Plan, mandated by the California Solid Waste Management and Resource Recovery Act (1972), is a long-term strategy for the management of solid waste generated within the County. Solid waste management includes the provision of safe disposal sites and transfer stations, recycling, energy recovery as well as programs to reduce the amount of solid waste generated. The plan, which carries a 20-year time frame, examines the suitability of existing and potential dump sites, discusses current

solid waste management administrative and operational procedures, and assesses the financing alternatives to implement the plan.

Recommendations in the plan concerned with management of solid waste are made by the County's Solid Waste Management Plan Committee. This Committee is composed of representatives from each city, the unincorporated area, appropriate county departments, and the private sector. The Committee formulates the plan to satisfy state standards and regulations. These are promulgated by three state agencies including the State Solid Waste Management Board, which formulates state solid waste management policy and approves solid waste management plans, the Department of Health Services, and the State Water Resources Control Board. Together, these agencies regulate the creation of dump sites, the disposal of hazardous wastes, and the protection of water resources.

The future of solid waste management in Monterey County will involve employing innovative technologies which allow for economical waste processing to create marketable waste by-products such as fuel and raw materials. By the year 2000 the County will also have established educational and public information programs which emphasize conservation, recycling, and resource recovery. During this period, some of the County disposal sites may close and solid waste may be consolidated into two major disposal sites at the current Marina and Johnson Canyon Road (near Gonzales) disposal sites. However, most closings will not occur until after 1990. Prior to that year, probably only the San Ardo, Bradley and the Parkfield sites will be closed.

The current era of limited resources has directed public attention toward resource conservation and resource recovery. Closing and consolidating disposal sites will increase refuse volume for economical resource recovery. Any decision pertaining to high technology processing of solid waste to produce energy and to recover materials will be largely dependent on the technology available at that time.

ISSUES FOR PUBLIC SERVICES AND FACILITIES

1. Can the high crime rate in certain areas of the County be reduced by increased sheriff's patrols and should other public service alternatives such as youth employment, parks and recreation, and neighborhood crime prevention programs be considered?

2. Much of the unincorporated area has no organized fire protection. With Proposition 13 severely depleting fire service revenues, how can a minimum level of fire protection be provided?

3. Given fluctuating enrollment within the County's schools, should the County Planning Department aid school districts by providing population forecasts for growth areas?

4. How can the County's vocational training programs be coordinated to produce a labor force with skills required by the kinds of industries encouraged to locate in the County?

5. Some of the County's residents have less access to health and medical services than do other County residents. Should the County encourage rural health clinics to service some of the County's rural areas?

6. The County's libraries are enjoying continued popularity. Should the County encourage large, more complete facilities or smaller, less centralized ones?

7. The County as a whole has over 290,000 acres in federal, state, county, municipal, and special district park lands-- about one acre of parkland for every County resident. Should the County continue an acquisition program or should it emphasize and develop recreational facilities--particularly riding and hiking trails--within existing parks?

8. The unincorporated area contains about 120 historic sites which have been identified to date. Most of the identified sites are historically significant to the County but not prominent enough to be protected by national and state historical registers. Should the County move to reserve these sites through cooperative agreements between the landowner and the County?

9. The County has 30 water service companies and a substantial number of mutual water companies and private wells which draw from common water tables. Should the County encourage greater coordination among those who draw from common water tables to ensure a sustained water supply?

10. As the County's population increases, there will be an increased need for solid waste disposal sites. Should these sites be centralized or decentralized? Which parts of the County should be evaluated for suitability as solid waste disposal sites?

11. What steps can the County take to ensure adequate provision of public utilities to service future development?

GOALS, OBJECTIVES, AND POLICIES FOR PUBLIC SERVICES AND FACILITIES

EMERGENCY SERVICES

46 GOAL

TO ENCOURAGE FINANCIAL SUPPORT MECHANISMS AND ORGANIZATIONAL STRUCTURES WHICH WOULD MAINTAIN EMERGENCY SERVICES AT LEVELS ADEQUATE FOR THE PROTECTION OF LIFE AND PROPERTY.

Objective

46.1 Delivery of at least a minimum of fire protection, where feasible, by responsible agencies throughout the County by 1985.

Policy

46.1.1 The County, in cooperation with LAFCO and other appropriate special districts, shall study and encourage the most cost-effective alternative of providing fire protection services while maintaining or improving fire protection service levels in the County.

Objective

46.2 Reduce crime through greater application of neighborhood, rural, and industrial crime prevention techniques.

Policy

46.2.1 The County should, through the County Sheriff's Department, support and promote efforts to organize neighborhood, rural, and industrial crime prevention techniques and conduct residential security surveys and public awareness programs.

Objective

46.3 Consider adequate levels of police protection and crime investigations for the protection of life and property in reviewing new development proposals.

EDUCATIONAL FACILITIES

47 GOAL

TO PROMOTE A BROAD RANGE OF EDUCATIONAL OPPORTUNITIES WITHIN EXISTING AND FUTURE POPULATION CENTERS.

Objective

47.1 Plan for spatial needs in public schools.

Policies

47.1.1 The County Planning Department with the cooperation of other appropriate agencies shall provide, at the earliest possible occasion, its best estimate of increased enrollment generated by new housing development to the affected school districts.

47.1.2 The County shall assist school districts, where appropriate, in reserving sites for future schools in or near areas of development.

47.1.3 The County, through the Office of Education, shall encourage coordination between those school districts experiencing increasing and declining enrollments to provide for the reallocation of surplus facilities in a cost-effective manner.

Objective

47.2 Support funding for interim school facility expansion to accommodate increased enrollment in school districts impacted by residential growth.

Policy

47.2.1 The County shall impose a housing impact fee on all new residential development in districts which demonstrate overcrowded classroom conditions for the purpose of funding interim school facilities.

Objective

47.3 Study and recommend cost-effective multi-purpose uses for all County public school facilities.

Policy

47.3.1 The County, through the Office of Education, shall encourage cost-effective multi-purpose functions of school facilities during off-school hours as appropriate for community meeting space and recreation space.

Objective

47.4 Expand, through the Office of Education, existing curriculum by 1985 which helps prepare students for job opportunities found in Monterey County.

Policies

47.4.1 The County shall encourage coordination between such agencies as the Private Industry Council, the Over all Economic Development Policy Committee, the CETA program, the California Employment Development Department, and local school districts in order to match employee skills with employer requirements.

47.4.2 The County shall, through internship programs, provide meaningful work experience in county government to qualified high school and community college students.

HEALTH AND MEDICAL SERVICES

48 GOAL

TO ENCOURAGE THE AVAILABILITY OF HEALTH AND MEDICAL SERVICES, PARTICULARLY IN RURAL AREAS.

Objective

48.1 Provide sufficient personnel for health inspections.

Policy

48.1.1 The County shall increase the extent and frequency of health inspections in areas of food, milk and dairy operations, water systems, public housing, institutions, labor camps, swimming pools and recreation places as well as inspections related to hazardous substances, occupational health and noise hazards.

Objective

48.2 Provide an increased level of health services to high risk consumers, primarily in rural areas.

Policies

48.2.1 The County shall support public health nurse services at levels which will service the health needs of the County's rural residents.

48.2.2 The County shall support the Family Practice and Residency Program at Natividad Medical Center.

48.2.3 The County shall provide resources needed for the following public health programs:

- o immunization;
- o maternal health;
- o child abuse and neglect;
- o child health screening;
- o communicable disease control; and
- o perinatal services.

Objective

48.3 Improve coordination of health agencies and other public and private human service agencies.

Policy

48.3.1 The County shall encourage coordination between the County Health Department, Social Services Department, and all related public and private human service agencies.

SOCIAL SERVICES

49 GOAL

TO ASSIST THOSE RESIDENTS WHO ARE UNABLE TO PROVIDE FOR THE SUBSISTENCE NEEDS OF THEMSELVES AND THEIR FAMILIES.

Objective

49.1 Provide access to emergency shelters on the Monterey Peninsula and in the King City area by 1984.

Policies

49.1.1 The County shall place a high priority on meeting the needs of families in crisis and shall direct its departments to aid in locating and establishing community crisis facilities.

49.1.2 The County shall make community crisis facilities geographically accessible to those areas demonstrating need and shall encourage bilingual staffing in appropriate locations.

Objective

49.2 Increase protective service capacities in areas of foster care, emergency shelters and child abuse education programs by 1985.

Policy

49.2.1 The County shall promote a safe home environment and the reduction of child abuse through public awareness programs and other measures deemed appropriate.

Objective

49.3 Provide increased transportation services for seniors and the handicapped by procuring more state special transit funds when available.

Policy

49.3.1 The County shall place a high priority on making County services accessible to seniors and handicapped and shall aid its departments to procure the necessary funding for special transit programs.

Objective

49.4 Provide senior citizens with appropriate day care services in the County, if economically feasible.

Policy

49.4.1 The County shall place a high priority on meeting the needs of the homebound frail elderly and shall direct its departments to aid in locating and establishing adult day care facilities or other appropriate services which maintain older persons in an independent setting.

Objective

49.5 Aid in locating senior citizen multi-use centers in the County.

Policies

49.5.1 The County shall place a priority on procuring and coordinating funds to establish senior citizen multi-use centers. Such facilities should be geographically accessible in those areas demonstrating need and shall encourage bilingual staffing, where appropriate.

49.5.2 An adult senior residence center may be allowed on the Carmelo School site.

Objective

49.6 Increase the capacity to store and retrieve social services data and provide computer linkage with other related county departments by 1985.

Policy

49.6.1 The County shall support computer storage and retrieval systems which are compatible with other related county department computer systems.

LIBRARY SERVICES

50 GOAL

TO INCREASE EDUCATIONAL, INFORMATIONAL AND LEISURE OPPORTUNITIES IN THE COUNTY BY PROVIDING ADEQUATE LIBRARY SERVICES.

Objective

50.1 Reserve sites for future library facilities in major growth areas by 1985.

Policy

50.1.1 In areas of major development concentration, the County shall designate locations for library facilities in accordance with current standards.

Objective

50.2 Increase library services by 1985 to residents who experience access problems because of age or handicap.

Policies

50.2.1 The County shall encourage the delivery of library services to all areas and residents of the County.

50.2.2 The County shall pursue funding for library services including state funds and private contributions.

Objective

50.3 Expand library facilities and services as needed.

Policy

50.3.1 The County shall expand library services in those areas which demonstrate the greatest need.

PARK AND RECREATION FACILITIES

51 GOAL

TO PROVIDE RECREATIONAL OPPORTUNITIES, PRESERVE NATURAL SCENIC RESOURCES AND SIGNIFICANT WILDLIFE HABITATS, AND SIGNIFICANT HISTORIC RESOURCES BY ESTABLISHING A COMPREHENSIVE COUNTY REGIONAL PARKS AND TRAILS SYSTEM.

Objective

51.1 Develop a parkland classification system by 1983.

Policies

51.1.1 Parks planning shall occur in accordance with the County General Plan. Proposed park development shall be evaluated for short- and long-term impacts on land use, natural resources, circulation, noise, and overall county growth patterns. Impact evaluation shall consider tourist attendance at park sites.

51.1.2 Park development shall be based on a parkland classification system developed by the Parks and Planning Department staffs which will specify resources management guidelines, principles, and park development standards for each park category and will be contained in a Comprehensive Parks Department Policy Statement.

51.1.3 Recreational trails shall not cross agricultural lands used for agricultural purposes unless such trails are part of a development permit or where natural boundaries exist that can separate the trails from agricultural uses.

Objective

51.2 Prepare a study by 1983 which evaluates and recommends the best method to achieve equitable distribution of parks and recreation services.

Policies

51.2.1 Provision of County parks should occur in coordination with federal, state and local agencies, special districts and other recreation providers to avoid duplication of services and to ensure a full range of recreation opportunities.

51.2.2 County parks should be developed and distributed equitably, where feasible, in terms of population, geographic location, and recreation needs.

51.2.3 County parks should be accessible to all County residents including the handicapped and elderly, where feasible.

51.2.4 An inventory of public and private areas particularly suited for future park and recreation purpose shall be performed, with particular emphasis on those areas having access to lakeshores, beaches, rivers and streams.

Objective

51.3 Achieve the principle of economic self-sufficiency for local recreation needs within the County park system by 1985, without compromising the above goal.

Policies

51.3.1 The County shall encourage the formation of an overall park system that is self-supporting by employing user fees, concessionaire revenues, soliciting grants and private contributions, requesting volunteer help, and by any other means which further cost-effective park operations.

51.3.2 The County Parks Department, in striving for economic self-sufficiency of the overall parks system, shall continue to place a high priority on meeting the recreation needs of county residents.

Objective

51.4 Consider sites for community parks in unincorporated communities by 1985.

Policy

51.4.1 While the County does not include small (less than 50 acres) urban type community parks in its park lands classification system, it shall be the policy of the County to facilitate the acquisition, development, and operation of such facilities by other agencies, special districts, and community groups serving these areas of the County. Joint use of school site areas for community parks and the possibility of obtaining grant monies for development and maintenance shall be explored.

HISTORIC PRESERVATION

52 GOAL

TO DESIGNATE, PROTECT, PRESERVE, ENHANCE, AND PERPETUATE THOSE STRUCTURES AND AREAS OF HISTORICAL, ARCHITECTURAL AND ENGINEERING SIGNIFICANCE WHICH CONTRIBUTE TO THE HISTORICAL HERITAGE OF MONTEREY COUNTY AND TO ENHANCE MONTEREY COUNTY'S HISTORICAL HERITAGE AND DIVERSE CULTURAL BACKGROUND BY ENCOURAGING THE SYSTEMATIC COLLECTION AND PRESERVATION OF HISTORIC RECORDS AND ARTIFACTS AND THE PROMOTION OF RELATED CULTURAL EVENTS.

Objective

52.1 Protect the County's cultural resources by developing a historic preservation plan and a historic preservation ordinance by 1985 which establish the necessary tools to protect the County's cultural resources.

Policies

52.1.1 The County shall compile and maintain a current inventory of cultural resources in unincorporated areas of the County and encourage the same of incorporated cities.

52.1.2 The County shall encourage and assist property owners to submit applications to qualify appropriate properties and buildings on the National Register of Historic Places and/or the State Landmark program. Those achieving such status shall be given "HR" zoning.

52.1.3 The County shall work with property owners to mitigate the destruction or alteration of historic resources by zoning identified historic sites as "HR" or Historic Resources zones. The "HR" reclassification would be implemented as follows:

- o Either at the time of requests for demolition or alteration of the resource, or
- o At the time of mutual agreement between the County and the property owner to preserve that historic resource.

52.1.4 The County shall appoint an Architectural Review Board to review restoration, rehabilitation, alteration and demolition proposals of those cultural resources identified by the cultural resources inventory.

52.1.5 The County shall support any such tax incentive, mutual covenants, protective covenants, purchase options, preservation easements, building, fire, health and County code modifications and any other methods deemed mutually agreeable between County and landowner which will help to preserve historic resources.

52.1.6 The County shall, through monies acquired from grants, donations and other revenue sources, provide funds for the restoration and enhancement of historic resources.

52.1.7 The County shall encourage lending institutions to reinvest in culturally significant neighborhoods where conventional loans are available and shall encourage the flow of low interest mortgage and home improvement loans.

52.1.8 The Monterey County Historical Advisory Commission shall:

- Work for the continuing education of county residents concerning historic resources;
- Seek financial support from local, state, and federal governments as well as the private sector to protect, preserve, and enhance the County's historic resources; and
- Coordinate its activities with all groups concerned with the preservation of historic resources.

Objective

52.2 Preserve the County's public records of historic value by initiating a preliminary study of present records management policies which outlines problems, identifies appropriate storage areas, makes recommendations for a records management program, and identifies public and private funding sources for the implementation of such a program by 1985.

Policies

52.2.1 The County shall inventory existing County records to determine those which have historic value, unify archives and records management policies within the county government and private archives, and accept donations of artifacts, manuscripts or monetary gifts which are to be used for acquisition of historical records.

52.2.2 The County shall support the revision of appropriate sections of the California Government Code to provide a strong statutory base for the management and preservation of state and local records.

Objective

52.3 Support existing cultural events and generate new programs by providing activity sites within the Monterey County Parks system and by developing and enhancing interpretive centers at San Lorenzo, San Antonio, Laguna Seca, Toro, Royal Oaks, and Jacks Peak Parks by 1985.

Policy

52.3.1 The County shall promote Monterey County's historical heritage through the recognition of existing cultural events and shall implement new activities such as tours, workshops, speaking engagements, interpretive programs, and festivals within the County Parks System.

WATER SERVICE

53 GOAL

TO PROMOTE ADEQUATE WATER SERVICE FOR ALL COUNTY NEEDS.

Objective

53.1 Achieve a sustained level of adequate water services.

Policies

53.1.1 The County shall encourage coordination between those public water service providers drawing from a common water table to assure that the water table is not overdrawn.

53.1.2 The County shall, through the Flood Control and Water Conservation District and other appropriate agencies, assure adequate monitoring of wells in those areas experiencing rapid residential growth.

53.1.3 The County shall not allow water consuming development in areas which do not have proven adequate water supplies.

53.1.4 New development shall be required to connect to existing water service providers which are public utilities, where feasible.

53.1.5 Proliferation of wells, serving residential, commer cial, and industrial uses, into common water tables shall be discouraged.

WASTEWATER TREATMENT PLANT FACILITIES

54 GOAL

TO ENSURE ADEQUATE LEVELS OF WASTEWATER TREATMENT BY DIRECTING GROWTH INTO AREAS WHERE DENSITIES ARE EITHER LOW ENOUGH FOR EFFECTIVE SEPTIC SYSTEM DISPOSAL OR HIGH ENOUGH TO SUPPORT SEWAGE TREATMENT PLANT FACILITIES.

Objective

54.1 Ensure provision of adequate sewage treatment plant facilities for high density development.

Policies

54.1.1 The County shall require provision of sewage treatment plant facilities for residential development within areas of development concentration.

54.1.2 The County shall require developer consortiums to contribute to the funding of sewage treatment plant facilities in areas where developments are geographically related.

54.1.3 The County shall study the imposition of a sewage impact fee on all new residential, commercial, and industrial development in Monterey County. Monies from this fund will be used to supplement funding for wastewater treatment plant facilities within the area of this development.

54.1.4 The County shall study alternatives in public and private financing techniques for the express purpose of funding sewage treatment plant facilities. The study shall consider shared financing, formation of assessment districts, user fees, state and federal sources, developer reimbursement, sales tax, and local income taxes.

Objective

54.2 Improve groundwater recharge through the use of reclaimed wastewater in accordance with health and safety standards.

Policies

54.2.1 The County shall, to the fullest extent possible, actively promote to federal and state levels of governments the continuation of existing research on the Monterey Wastewater Reclamation Study for Agriculture.

54.2.2 The County shall expeditiously implement the proper application of reclaimed wastewater when proven safe to do so.

54.2.3 The County shall be attentive to the state of the art in reclamation technology and, where applicable and cost-effective, shall encourage implementation thereof.

SOLID WASTE

55 GOAL

TO PROVIDE FOR THE ORDERLY, SYSTEMATIC DISPOSAL OF SOLID WASTES IN A MANNER WHICH WILL PROTECT THE ENVIRONMENT AND ENSURE THE CONTINUED HEALTH AND SAFETY OF ALL COUNTY RESIDENTS.

Objective

55.1 Provide for efficient, cost-effective disposal sites and the initial development of a resource recovery program by 1985.

Policies

55.1.1 The County shall support the adopted Solid Waste Management Plan to achieve solid waste management objectives.

55.1.2 The County shall designate an adequate number of solid waste disposal sites consistent with the County's Solid Waste Management Plan.

55.1.3 The County, in determining cost-effectiveness, shall consider all costs to both the provider and the consumer.

55.1.4 The County shall limit oil field waste disposal sites to only the number and capacity needed to serve the industry of the region.

PUBLIC UTILITIES

56 GOAL

TO PROMOTE THE EFFICIENT DISTRIBUTION OF PUBLIC UTILITIES BY RESERVING LAND USES FOR UTILITY SITES AND ACCESS CORRIDORS WHICH PROVIDE UTILITIES FOR PLANNED POPULATION CENTERS.

Objective

56.1 Provide for adequate public utilities to planned growth areas.

Policy

56.1.1 The County shall, when planning for development, provide for utility corridor rights-of-way.

Objective

56.2 Ensure the aesthetic placement of utility lines.

Policies

56.2.1 The County shall, in accordance with the Monterey County Subdivision Ordinance, require that all new utility lines be placed underground.

56.2.2 The County shall seek to place existing utility lines underground whenever feasible.

HOUSING

(Amended November 10, 1992)

UPDATE

The following sections previously addressed under the Housing heading contained in this document have been replaced by the adopted ***1992 Monterey County Housing Element of the General Plan****:*

SUMMARY OF COUNTY HOUSING GOALS, POLICIES, AND PROGRAMS;

GOALS, OBJECTIVES, AND POLICIES FOR HOUSING;

AFFORDABLE HOUSING;

PRESERVATION OF HOUSING STOCK;

INTER-JURISDICTIONAL COOPERATION AND COORDINATION.

Actions by the Board of Supervisors

On November 10, 1992, by Resolution #92-471, the Board of Supervisors for the County of Monterey adopted an amendment to the Housing Element of the Monterey County General Plan updating, among other sections, the sections named above.

Those sections and all other required contents are now addressed in a separate document named the ***"Monterey County Housing Element of the General Plan."***

Document Availability

The Monterey County Housing Element of the General Plan is available accompanying this document and related area plans at the Monterey County Planning and Building Inspection Department.

CHAPTER V: COUNTYWIDE LAND USE PLAN

COUNTYWIDE LAND USE PLAN

The Monterey County land use plan, consisting of Figures 13a, 13b, 13c, and 14, is a graphic schematic representation of the general distribution and general location, extent, and intensity of future land uses and transportation routes in the unincorporated area. The land use plan, which must be used in conjunction with General Plan goals, objectives, and policies found in this text under headings for Natural Resources, Environmental Constraints, Human Resources, and County Development, constitutes a "blueprint for the future" of Monterey County for the next 20 years. The land use plan fulfills the state law requirement that a general plan must "...include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals..."*

Because the land use plan is countywide in scope, it provides a relatively general level of detail. An increased level of detail will be supplied, as appropriate, through preparation of plans for each of the County's eight planning areas. These area plans will provide, where appropriate, adjustments or refinements to the countywide plan in order to reflect neighborhood or community concerns which cannot be feasibly addressed at the countywide level. Although adjustments and refinements are possible at the area plan level, these changes must be consistent with the intent and overall direction of the countywide plan. Thus, changes at the area plan level which would require changes in land use type or intensity at the countywide level shall be allowed only if they are consistent with all the goals, objectives, and policies of this General Plan, the County's adopted Growth Management Policy, and adopted Economic Development Policy. Area plan preparation will be completed after adoption of the countywide General Plan. Development which is consistent with the countywide General Plan may be approved prior to completion of the area plans.

In addition, the land use plan shows only very generalized proposed land uses in the Coastal Zone based on the County's adopted or most recently proposed Local Coastal Program/Land Use Plans (LCP/LUPs). LCP/LUP land uses shown on Figures 13a and 13b are generalized in part because of the mapping scale which must be used to show the entire County on one map. Also, in order to show LCP/LUP proposed land uses within the countywide plan context, it was necessary to generalize the LCP/LUP land use categories so that they are consistent with the broader countywide land use plan designations. Because of their more detailed land use designations and because the Coastal Act mandates that the County meet very stringent and inflexible requirements for planning within the Coastal Zone, no attempt is made in this section to summarize LCP/LUP proposed land uses. For detailed proposed land use information in the Coastal Zone, it is necessary to review the Monterey County LCP/LUP for the appropriate geographic segments--North County, Del Monte Forest, Carmel Area, and Big Sur.

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FIGURES 13a

FIGURES 13b

FIGURES 13c

PREPARATION OF THE LAND USE PLAN

The land use plan was prepared after careful consideration of various factors which are critical with regard to the County's planning program. These factors include countywide goals, objectives, and policies adopted by the Citizens Advisory Committee, the Growth Management Policy, the Economic Development Policy, spheres of influence and general plans for the various cities, existing land use, existing county and state plans (including plans for improvement and re-alignment of roads and highways), and critical factors which act as "growth determinants."

Growth determinants--factors which induce, accommodate, limit, or preclude growth--are analyzed in detail in the General Plan Update Program background reports which were prepared after an exhaustive two-year study and reviewed by the Citizens Advisory Committee. Growth determinants include slope, water availability/quality, soil erosion, known sewage treatment problem areas, significant botanical and natural areas, flooding, fire hazard, areas of seismic and geologic instability, existing land use, problems related to vehicular access, and inherent soil suitability for structural development, intensive agriculture, and grazing. Areas subject to flooding are identified on Figure 6. Plans, programs, and criteria for development in and near flood prone areas are discussed in policies 16.1.1 through 16.4.2.

MONTEREY COUNTY LAND USE PLAN

LAND USE DESIGNATIONS

At the countywide level, all proposed major land uses are indicated by one of seven basic designations: residential, commercial, industrial, agricultural, resource conservation, public/quasi-public, and transportation. These basic designations, along with an overlay designation for urban reserve, are discussed in the following paragraphs. Examples given to explain each land use designation are not exhaustive, and it is envisioned that more specific uses will be included, as appropriate, at the area plan level.

It must be remembered that the countywide land use plan is general in nature. Although every effort has been made to be as precise as possible in mapping future land uses, it is acknowledged that the countywide land use plan map must allow for some flexibility regarding interpretation of the exact location and extent of such uses. Furthermore, all references to development density are expressed in gross acres, and all densities are maximum densities. These maximum densities will be allowed only where there is provision for an adequate level of facilities and services and where all plan policy requirements and criteria can be met.

Residential

This category applies to areas to be used for the development of housing at various densities. Within the time frame of this plan, the County will direct residential development into areas designated according to the following density categories*:

Rural Density--greater than 5 acres per unit;
Low Density--5 acres per unit up to 1 acre per unit;
Medium Density--less than 1 acre per unit up to 0.2 acres per unit (i.e., more than 1 unit per acre up to 5 units per acre); and
High Density--less than 0.2 acres per unit up to 0.05 acres per unit (i.e., more than 5 units per acre up to 20 units per acre).

Commercial

This category applies to areas which are suitable for the development of retail and service commercial uses, including visitor accommodation and professional office uses. In general, building intensity for commercial areas shall conform to standards which limit building height to a maximum of 35 feet and lot coverage to a maximum of 50 percent, excluding parking and landscaping requirements. It is anticipated that further detailed implementation and possible modification of these standards will be undertaken at the area plan and zoning implementation phases.

Industrial

This land use category applies to areas designated for the development of suitable types of manufacturing (with emphasis on agriculturally-related manufacturing), research, mineral extraction, and processing operations. In general, building intensity for industrial areas shall conform to standards which limit building height to a maximum range of 35 feet to 75 feet and lot coverage to a maximum of 50 percent, excluding parking and landscaping requirements. It is anticipated that further detailed implementation and possible modification of these standards will be undertaken at the area plan and zoning implementation phases.

Agricultural

This category includes the sub-categories of farmlands, rural grazing lands, and permanent grazing lands.

Farmlands. The farmlands sub-category includes those farmlands designated by the USDA Soil Conservation Service as prime, of statewide importance, unique, or of local importance. The minimum parcel size for these farmlands shall be 40 acres.

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*Where clustering is allowed, total site density shall not exceed the density allowed by the appropriate residential category. In addition, on development sites where clustering is allowed, minimum lot sizes may be reduced consistent with environmental, health, and other planning requirements.

Rural and permanent grazing lands are those which, according to the USDA Soil Conservation Service, display a high or moderate degree of capability/ suitability for grazing of livestock.

Rural Grazing Lands. This land use sub-category is applied to grazing lands which are located in the County's developing areas, which are not restricted by a 20-year Williamson Act contract, and on which the County intends to allow mixed residential and agricultural land uses.

In rural grazing areas, minimum parcel sizes shall range from a 10-acre minimum to a 160-acre minimum, but they shall not be less than the existing zoning designation on the date of adoption of this General Plan. The local area plan citizens advisory committees shall recommend the appropriate rural grazing land lot sizes for their communities, but they shall not be less than the existing zoning designation on the date of adoption of this General Plan.

Clustering of residential uses shall be encouraged provided that total site density shall not exceed that allowed by the appropriate rural grazing land use category. Density for clustering shall be numerically consistent with minimum lot size; e.g., in an area which is designated rural grazing lands with a 10-acre minimum, allowable density shall be 10 acres per unit. As a condition of clustered residential development approval, the developer shall be required to enter into a permanent restriction to ensure continued grazing use on those portions of the property not developed for residential use.

Permanent Grazing Lands. This land use sub-category is applied to those portions of the County in which exclusive grazing use is to be preserved, enhanced, and expanded.

On permanent grazing lands, minimum parcel sizes shall be 40 acres and larger, but they shall not be less than the existing zoning designation on the date of adoption of this General Plan. The local area plan citizens advisory committees shall recommend the appropriate permanent grazing land lot sizes for their communities, but they shall not be less than 40 acres nor shall they be less than the existing zoning designation on the date of adoption of this General Plan.

Only when they are clearly an accessory use to the exclusive agricultural use of the property, residential units may be developed at a density of 40 acres or more per unit.

Subdivision of land may be allowed only for agricultural purposes, for farm labor housing, or in order to create a building site for immediate family members and spouses.

The division of property to create a one-acre minimum building site may be considered by the County if the division is to accommodate housing for members of the immediate family of the property owner who earn their livelihood from grazing use of the family land immediately contiguous to the parcel being created by subdivision. Such subdivision shall be conditioned to allow for the exclusive occupancy by immediate family members and their spouses. Likewise, another condition shall require the parcel to be an accessory use to the ranch in question or to an adjoining ranch, providing the residence is accessory to the adjoining agricultural use and is occupied exclusively by immediate family owners and spouses of the owners or lessors.

Lands within the permanent grazing lands sub-category may be merged with adjacent lands which are involved in active grazing operations.

Resource Conservation

This category is intended to ensure conservation of a wide variety of the County's resources while allowing for some limited use of these properties. Typical of lands included in this category are watershed areas, riparian habitats, scenic resources, and lands which are generally remote, have steep slopes, or are inaccessible. This category also includes the floodways of the County's major rivers as well as its major water bodies. Uses in resource conservation areas must be in keeping with the conservation intent of this category. For example, allowed uses may include grazing and other agricultural uses, passive recreation such as camping, riding, and hiking, and timber harvesting conducted under an approved forest management plan.

Minimum parcel size in resource conservation areas shall range from a 10-acre minimum to a 160-acre minimum but they shall not be less than the existing zoning designation on the date of adoption of this General Plan. The local area citizens advisory committees shall recommend the appropriate resource conservation lot sizes for their communities, but they shall not be less than the existing zoning designation on the date of adoption of this General Plan. Residential uses are not a primary use in this category and will be allowed only if the applicant can demonstrate that conservation values are not compromised. Density for residential uses, if allowed, shall range from 10 acres or more per unit to 160 acres or more per unit.

Public/Quasi-Public

This category is applied to a wide variety of existing and proposed uses which are either operated by a public agency or which serve a large segment of the public. Public/quasi-public uses include the following:

- Schools (public and private)
- Parks, Recreation Areas, and Public and Privately Operated Recreational Facilities (i.e., tennis clubs and golf courses with accessory uses such as a clubhouse, pro shop, restaurant and/or administrative/business office)
- Natural Reserves (includes areas such as Elkhorn Slough Estuarine Sanctuary and undeveloped portions of Los Padres National Forest)
- Emergency Services (i.e., police, fire, and hospital)
- Solid and Liquid Waste Disposal
- Military
- Religious Facilities
- Other Public Facilities

Transportation

This category includes highways, major arterials (i.e., major county roads), scenic routes, recreational trails, railroads, airports, and harbors.

Urban Reserve

This is an overlay designation which may be used in conjunction with any of the County's land use categories. It is used to denote areas which the County believes should be annexed and developed in a phased manner as part of an incorporated city in order to ensure effective provision of urban services. Until such time as annexation occurs, the County will allow those land uses which are shown on the land use plan in conjunction with the urban reserve overlay. While under County jurisdiction, allowed land uses within urban reserve areas are specified at densities which will not compromise the future annexation plans of any city, will promote beneficial county traffic patterns, and will enhance emergency preparedness.

Area of Development Concentration

Areas of development concentration are those portions of the unincorporated area within which development is to be concentrated in order to better achieve other aspects of growth management such as preservation, enhancement, and expansion of agricultural lands and protection of other natural resources. Areas of development concentration shall provide adequate infrastructure to the development such as water, sewage treatment, roads, commercial facilities, schools, and fire protection. Developments of this type should be proposed as specific plan amendments to the General Plan, shall be in consonance with the goals, objectives, and policies of the General Plan, and must meet criteria delineated in the Monterey County Growth Management Policy (Appendix A).

The "Comprehensive Planned Use" overlay is intended to be used in conjunction with the underlying land use designation. Its purpose is to facilitate a comprehensive approach for specifically designated properties where a mix of uses is permitted and/or where there are unique natural and scenic resources or significant recreational/visitor serving opportunities. Particular attention is to be given towards siting and planning development to be compatible with existing resources and adjacent land uses.

Special Use

Schools, churches, hospitals, and public facilities such as community halls, although classified as public/quasi-public uses, may be considered in any land use category provided that such use is compatible with existing land uses in the area.

Spheres of Influence and Coastal Zone Boundary

Two important boundary lines are shown on the land use plan which, although not land use designations perse, are of critical concern for the County's planning program. The first of these are adopted or proposed sphere of influence boundaries. These represent the probable 20-year growth areas for the cities and must be approved by the Monterey County Local Agency Formation Commission (LAFCO). The second important boundary shows the Coastal Zone within Monterey County as established by the California Coastal Act of 1976. Within the Coastal Zone, the County has prepared detailed land use plans as part of the previously discussed Local Coastal Program.

LAND USE PLAN PHILOSOPHY

The land use plan is based on four primary philosophical considerations or assumptions. These are that the County's most productive farmlands and grazing lands must be preserved, enhanced and expanded; that diversified economic development requires the designation of additional industrial sites; that the County's natural resources must be preserved, enhanced and expanded; and that, in order to make best use of County resources, development should be directed toward specified growth areas where facilities and services can be efficiently provided and should be restricted in the remainder of the County.

MAJOR RECOMMENDATIONS

The following sections describe, in part, major recommendations for each of the designations shown graphically on the land use plan. Although not mapped separately, adopted specific plans for Toro Vista and Carmel Valley Ranch are incorporated by reference. Where there are sub-categories described as part of a major land use designation, it must be remembered that examples related to the sub-categories are not necessarily exhaustive. Further detail may be provided at the area plan level. In addition, Table 9 provides data which allows comparison of the acreage in each of the proposed land use categories with the amount of acreage already committed to that category by existing development. A review of the General Plan text, the land use plan map, and Table 9 provides a complete overview of the scope of land uses proposed as part of this General Plan.

Residential

The plan concentrates new residential development in areas which, for the most part, are already committed to some degree of residential development. Areas designated as residential in this land use plan can accommodate approximately 97,000 persons. Much of the County's planned residential development should occur at rural density or at low density. Additional residential uses are allowed in other land use categories and could accommodate a total of 58,000 additional persons based on total buildout. Although plan policies will tend to lower the actual population increase, the plan can theoretically accommodate a total of approximately 155,000 additional persons.

Rural density residential use is designated in the Dunbarton Road area of North County; in the Salinas area northwest of San Juan Grade Road and along Old Stage Road; in the Toro area along a portion of River Road and south of Toro Regional Park; along the entire westerly side and along portions of the easterly side of Laureles Grade; in the Aguajito area; in Carmel Valley southeast of the Village, southeast of Garland Ranch Regional Park, and south of the Carmel River in the lower valley; in Cachagua near Prince's Camp; and in South County at Lockwood, in the Bryson-Hesperia area, north and south of the intersection of Bryson-Hesperia Road and Interlake Road, in the Pleyto Road area, and for most of Parkfield.

Low density residential is shown on the land use plan in North County in and south of Aromas, near Lewis Road and Vega Road, and along San Miguel Canyon Road and Pesante Road; in the Salinas area along San Juan Grade Road north of Crazy Horse Road, in the vicinity of the Natividad Road/Old Stage Road intersection, and in the Boronda area; in the Toro area along River Road between Highway 68 and Pine Canyon Road, along portions of Corral de Tierra Road and San Benancio Road, and along Highway 68 near Toro Regional Park; in Carmel Valley; in Arroyo Seco at Sycamore Flats; in Pine Canyon southwest of King

City; and in South County near Argyle Road, at the Jolon Road/ Pleyto Road intersection, and in the communities of Bradley, San Lucas, and Parkfield.

Medium density residential is designated in the Toro area along River Road near Pine Canyon Road, along Highway 68, and along the portions of Corral de Tierra Road and San Benancio Road nearest to Highway 68; at the mouth of Carmel Valley; and in Pine Canyon near King City. Sewage treatment facilities or capacity must be available in these areas before new development at medium densities can occur.

High density residential development is planned at five locations, each of which are designated development incentive zones (DIZs) for affordable housing in the County's adopted Housing Element. These five areas planned for high density housing--the existing communities of Pajaro, Castroville, Las Lomas, Chualar, and San Ardo--have existing sewage treatment facilities, but system improvements may be needed to fully realize further high density potential.

Commercial

The plan shows that existing areas designated for commercial uses will be retained but not significantly expanded in Pajaro, Aromas, Carmel Valley, the Toro area along Highway 68, in Cachagua at Prince's Camp, in San Lucas, San Ardo, Bradley, and Parkfield. In areas where the plan shows new or intensified residential or recreational uses, new or significantly expanded commercial uses are proposed. The plan shows expansion of commercial uses along Highway 101 in North County at San Miguel Canyon Road, Prunedale North Road, and at Vierra Canyon Road; and in South County at Lockwood, at the intersection of Jolon Road and Pleyto Road, and at the intersection of Interlake Road and San Antonio Road.

New commercial uses are planned at Reese Circle in North County; in the Toro area near River Road between Highway 68 and Pine Canyon Road; in Carmel Valley east of Val Verde Drive, south of the Carmel River in the lower valley, east of the Valley Hills Shopping Center, east of Robinson Canyon Road between the Carmel River and Carmel Valley Road, northeast of the Carmel Valley Village, and southeast of the Village west of the Carmel River; and northwest of Greenfield at the intersection of Highway 101 and Cypress Avenue.

With regard to the approximately nine-acre parcel of land between the Carmel River and Carmel Valley Road and extending easterly from Robinson Canyon Road, a commercial use limited to corporate offices to be utilized for the management and operation of the adjacent Carmel Valley Ranch development will be considered. This use will be restricted to the westerly four acres of the property. Restricted access to Robinson Canyon Road precludes more intensive commercial use of this property.

In addition to the sites described above, a special need for service centers has been identified in Carmel Valley and five potential service center sites have been suggested for identification. There may be application made for the location of these service centers at the identified sites. Additionally, the location and deletion of potential sites may be considered at the area plan level.

Industrial

The plan shows that existing industrial sites in the County should be retained, including the Kaiser dolomite quarry near Salinas and the San Ardo oil fields in South County. In addition,

the plan proposes expansion of the existing industrial area southeast of Castroville as well as eastward expansion of the Kaiser dolomite quarry. Three completely new industrial areas are planned: one in the Prunedale area south of Highway 156 and just west of Prunedale South Road, one off Metz Road near Greenfield, and one northwest of San Lucas. Finally, property at the northwest corner of Somavia Road and Highway 101 is planned for agricultural-industrial use with a 60-acre minimum building site.

The locations of these new and expanded industrial areas have been carefully considered in light of agriculturally-related industrial needs, agricultural protection, transportation availability, access to necessary work force, and consistency with existing or proposed city spheres of influence.

Agricultural

Farmland. The plan designates as farmland most of the existing and potential cropland in the Pajaro Valley and Salinas Valley, and some of the smaller agricultural valleys which extend laterally from the Salinas Valley. Also included in the farmlands sub-category are some of the scattered croplands in the south and southeast portions of the County.

Rural Grazing. Rural grazing lands are designated in South County west of Lockwood, near Pleyto Road, and northeast of San Antonio Reservoir; at Reliz Canyon southwest of Greenfield; in the Arroyo Seco area; at Chualar Canyon; in portions of the upper Corral de Tierra; and in an area south of Carmel Valley off Schulte Road.

Permanent Grazing. The plan designates permanent grazing lands in the easterly and southeasterly portions of the County; in some areas west of the Salinas Valley; in portions of the Toro area; north and south of the Carmel Valley and northeast of the Carmel Valley Village; in the Cachagua area; and south of the Pajaro Valley.

Resource Conservation

Resource conservation is shown on the land use plan in the North County water shortage area near Highway 101; along Highway 68 between the City of Monterey and the Toro area; in the Toro area off River Road, in the center of the Corral de Tierra/San Benancio Road "loop," and south of Toro Regional Park; in some portions of the Gabilan foothills east of the Salinas Valley; and south of Carmel Valley and northeast of Carmel Valley Village; and Rancho San Carlos subject to Comprehensive Planned Use Policies. Application of the resource conservation category in conjunction with the urban reserve overlay adjacent to incorporated cities is intended to encourage annexation prior to any intensive property development.

TABLE 9
Comparative Land Use

Resource conservation is also applied in the County's more remote areas and covers a large portion of the County west of the Salinas Valley and east of Los Padres National Forest and Hunter Liggett Military Reservation. Resource conservation is also applied to private in-holdings within the National Forest.

Rivers and water bodies designated as part of the resource conservation category include the County's major rivers; Elkhorn Slough; Espinosa Lake; San Antonio, San Clemente, and Los Padres Reservoirs; and a proposed water storage facility on the Arroyo Seco River at the "Pools" site.

Public/Quasi-Public

Major mapped uses in this category include the Los Padres National Forest; Elkhorn Slough Estuarine Sanctuary; military bases at Fort Ord, Hunter Liggett and Camp Roberts; public schools; solid and liquid waste disposal sites; state and county parks; and public and privately operated recreational facilities and their accessory uses.

Lands administered by the U.S. Bureau of Land Management (BLM) are indicated with solid boundary lines. Although the County has no jurisdiction over BLM lands at the present time, a land use of either resource conservation or permanent grazing is shown in the event that the land is sold to a private individual and becomes subject to County jurisdiction.

The land use plan shows the location of fifteen solid waste disposal sites operated by the County, the City of Salinas, the Monterey Peninsula Garbage and Refuse Disposal District, the U.S. Government, and by the private sector. The sites are all existing and no new sites are contemplated in the County's adopted Solid Waste Management Plan. The eight County operated sites include one in North County off Lewis Road; at Johnson Canyon outside of Gonzales; near King City at Jolon Road; outside of the South County communities of San Ardo, Bradley, and Parkfield; and at both the north and south shores of San Antonio Reservoir. The City of Salinas site is located in North County off Crazy Horse Road. Only solid waste collected within the City may be disposed of at the site. The site operated by the Monterey Peninsula Garbage and Refuse Disposal District is shown north of Marina. Three sites operated by the U.S. Government are shown on the land use plan--two at Fort Ord and one at Hunter Liggett Military Reservation. These sites are for military use only. Two existing private waste disposal sites serving the oil fields (the Rancho Los Lobos drilling waste disposal site and the Texaco trash dump) are shown on the land use plan south of San Ardo.

The land use plan also shows the location of three solid waste transfer stations: the Salinas transfer station located in the Boronda area; the Monterey Peninsula transfer station located in Sand City; and the Carmel Valley transfer station located in the Carmel Valley Village.

The only new proposals for public/quasi-public use shown on the plan are for parks, recreation facilities, and schools. A significant increase in recreational uses is planned for the San Antonio Reservoir area, both within the boundaries of the property owned by Zones 2 and 2A of the County Flood Control and Water Conservation District and outside that area in privately owned land south of the Zone 2 and 2A ownership. Within the Zone 2 and 2A ownership, it is envisioned that recreation facilities will be developed under guidance of the County Parks Department. Recreation facilities south of this area should be developed by the private sector. A new park and recreation facility is also shown at Espinosa Lake and could

be developed by either the public or private sector. The land use plan also shows a parks and recreation designation for the recent "Blomquist Addition" to the Monterey Peninsula Regional Parks District. This property is located east of the Carmel Valley Village and north of Carmel Valley Road. The designation for a proposed recreational development is shown on property located southeast of Carmel Valley Village and immediately west of the Carmel River. Recreational development of this property should be undertaken by the private sector in conjunction with the resort and visitor serving commercial uses to be located at an existing house and equestrian center located on the property.

Two new school sites are shown in areas planned for future residential growth. Both proposed school sites are in the Toro area, one at the Toro Vista project site and one at the Las Palmas project site. Additional school sites may be designated as a result of detailed analysis done at the area plan level.

Transportation

The only major additions/improvements to the County's transportation system shown on this countywide land use plan are improvements to the highway and road system. No major changes are proposed for airports, harbors, railroads, or the public transit system serving the County. Improvements planned for state highways include the Highway 101 re-alignment through North County, improvement of Highway 68 to a four-lane roadway, and the construction of a new alignment for Highway 1 through Hatton Canyon. With the exception of the Pesante Road extension in North County, no new County roads are shown on the land use plan. However, improvements are proposed for some existing roads to accommodate traffic generated by additional development over the next 20 years. County roads which will require improvement include Hall Road, San Miguel Canyon Road, Elkhorn Road, River Road, Corral de Tierra Road, and Carmel Valley Road.

In order to protect the future alignments of proposed new or improved highways and roads, that portion of the County Streets and Highways Plan which establishes Official Plan Lines (Ordinance No. 499) is incorporated by reference as part of this countywide land use plan.

It is proposed that all of the designated scenic routes in the County be retained. It is further proposed that additional routes be studied for official scenic designation while recognizing that scenic routes are, in general, not compatible with agricultural operations in rural areas of the County.

These include the following state highways:

- Highway 1 from the Pajaro River to its junction with Highway 68;
- Highway 146 from Soledad to the San Benito County line/Pinnacles National Monument;
- Highway 198 from San Lucas to the Fresno County line; and
- Highway 25 from Highway 198 to the San Benito County line.

The following County roads are shown as proposed scenic routes and may become official scenic routes only after proper study and certification:

- Crazy Horse Road;
- Old Stage Road between Crazy Horse Road and Williams Road;
- San Juan Grade Road from Crazy Horse Road to the San Benito County line;

- Palo Colorado Road;
- Old Coast Road;
- Reservation Road from Marina to Highway 68;
- Elm Avenue from Greenfield to Arroyo Seco Road;
- Arroyo Seco Road to Carmel Valley Road and along Carmel Valley Road to its terminus at Highway 1;
- Bitterwater Road from King City to the San Benito County line;
- Jolon Road from King City to Bradley; and
- Nacimiento Lake Drive from Jolon Road to the San Luis Obispo County line.

Recreational Trails

The County Recreational Trails Plan, adopted in 1971, is the basis for a countywide trails system proposed as part of this General Plan. The trails plan map provided as part of this General Plan links both residential and recreational areas through the use of equestrian, hiking, and bicycle trails. The trails plan is shown on a separate map (Figure 14) for greater clarity--it is, however, part of the countywide land use plan. The locations of proposed countywide trails shown on Figure 14 are generalized. It is important to remember that if appropriate, each area plan will show more detailed trail alignments based on the countywide trails plan as well as new trails to serve local needs identified at the area plan level.

The trails plan map shows a proposed countywide equestrian and hiking trail system that traverses both coastal and inland portions of North County. It extends around the Salinas area, through the Highway 68 corridor, into Toro Park, along Pine Canyon Road in the Toro area, around the Monterey Peninsula from the City of Monterey to Asilomar, through Carmel Valley, through the Los Padres National Forest and Hunter Liggett Military Reservation, and from Hunter Liggett to King City.

Proposed bicycle trails are shown on the plan map from Asilomar to Monterey, along Highway 68 from Monterey to Salinas, and along Carmel Valley Road from Highway 1 to Laureles Grade.

Urban Reserve

The urban reserve overlay, used to designate an unincorporated area which the County believes should be developed through annexation to an incorporated city, is shown in eight portions of the County. Urban reserve is shown northwest of Salinas in the Boronda area; northeast of Salinas between Natividad and Williams Road; south of Salinas between the airport and Highway 101; north of the City of Marina; east of the City of Monterey and in the Aguajito area; and adjacent to the Cities of Gonzales, Soledad, and Greenfield.

Area of Development Concentration Study Areas

Areas of development concentration are not mapped on the land use plan at this time. The following is a partial list of area of development concentration study areas and is not intended to be an all inclusive list or a commitment to ADC designation:

- the River Road area bounded by Pine Canyon Road on the east, River Road on the north, Highway 68 on the west and Toro Regional Park on the south, excluding the St. Johns College and Marks properties;
- portions of Carmel Valley;
- the area north of Russell Road between Harrison Road, San Juan Grade Road, the Hebert Road extension, and the boundary between Rancho Bolsa Nueva y Moro Cojo and Rancho Bolsa de Escarpines;
- the Pine Canyon area southwest of King City; and
- Laguna Seca Ranch.

FIGURE 14
TRAILS PLAN

CHAPTER VI: PLAN IMPLEMENTATION

PLAN IMPLEMENTATION

The Monterey County General Plan, consisting of countywide strategies and a countywide future land use map, is a comprehensive long-range plan designed to guide the County's development and resource conservation. It is the product of an analysis of information found in background reports and resource maps compiled in an exhaustive study of the County. It reflects physical opportunities and limitations for growth.

The General Plan is to be used as the basis for discretionary actions by the Board of Supervisors and the Planning Commission. Area plans will be developed to explicitly apply the policies of the General Plan to each parcel of property. While the General Plan sets the framework for community development, the day-to-day actions of the County truly shape the community. Thus, the manner in which the Plan is implemented is the real test of the worth of its goals, objectives, and policies.

Most tools for implementation of the General Plan derive from the County's corporate powers and police powers. State law requires the County to have subdivision and building regulations; most other measures are optional. If the goals, objectives, and policies of the General Plan are to be served effectively, the implementing measures must be carefully chosen, adapted to local needs, and carried out as an integrated program of complementary and mutually reinforcing actions. In addition to the requirements that the General Plan address nine specific elements and be internally consistent, implementing measures must be consistent with the General Plan. Ordinarily an action, program, or project is consistent with the General Plan if it will further the objectives and policies of the General Plan and not obstruct their attainment.

Some of the more important implementation measures for the County include zoning regulations, subdivision regulations, capital improvements programming, delineation of urban service boundaries, preparation of specific plans, and project review under the California Environmental Quality Act.

ORDINANCES

Zoning Ordinance

Zoning is the primary tool for implementing the General Plan. In its simplest form, zoning is the division of a geographical area into districts, accompanied by a written description of allowable land uses and development standards for each of the districts. The function of zoning is to translate the comprehensive, long-range, and relative broad policies of the General Plan into single purpose, short-range, and specific development standards for each piece of property in the County. Proper zoning will help to ensure that development on any parcel in the County is in conformance with the updated General Plan. Planning law stipulates that noo open space zoning ordinance may be adopted, no building permits issued, and no subdivision map approved unless consistent with the Plan’s policies regarding open space. Revising the zoning ordinance to secure conformity with the General Plan will include the establishment of appropriate zoning districts and densities to implement the Plan,

specification of zoning for each parcel, and continued enforcement and amendment as appropriate.

Subdivision Ordinance

In order to ensure conformity to the General Plan, the County is directed to regulate the "design and improvement" of subdivisions, which includes the physical layout of lots, dedication of public improvements and easements, and other measures. Furthermore, the County is authorized by the Subdivision Map Act to require dedication of public improvements or require payment of in-lieu fees for improvements such as streets, drainage, local transit, school sites, parks and recreation, coastal access, and erosion control.

The subdivision ordinance should address the issues of on-site improvements, off-site improvements, and protection of environmentally sensitive areas. Specific subdivision proposals must demonstrate consistency with the General Plan on these points as well as on the issue of proper timing or other issues addressed in the subdivision ordinance.

Other Ordinances

Other existing ordinances and policies which will be reviewed in the interest of consistency with the General Plan and to facilitate its implementation include the Erosion Control Ordinance, the Noise Pollution Ordinance, the Official Plan Line (OPL) Ordinance, the Building Ordinance, energy policies, and the Growth Management Policy. These must reflect the goals, objectives and policies adopted in the Monterey County General Plan.

CAPITAL IMPROVEMENTS PROGRAM

The network of publicly owned facilities such as roads, streets, water and sewer facilities, public buildings, and parks forms the skeletal structure of a community. Certain public facilities, particularly water and sewer facilities and roads and streets, play a major role in determining the location, intensity, and timing of future development.

Because of their importance in the growth of the community, state law requires that decisions about capital facilities be reviewed for consistency with the adopted General Plan. All departments within the County and all other local governmental agencies, including cities, school districts, and special districts that construct capital facilities, must annually submit to the Planning Commission a list of projects being planned or constructed in the coming year. The Planning Commission must review the projects for conformity to the General Plan. A similar review for individual capital projects is also required.

Rather than consider individual capital improvement projects or only those projects to be undertaken in a single year, the County will prepare and annually revise a Capital Improvements Program (CIP) covering a period of at least six years. Because of the tremendous influence that capital improvement projects have on physical development within a jurisdiction, the Capital Improvements Program has important strategic value for implementing General Plan policies. It can help shape and phase growth according to adopted policies.

Major steps in the development of a CIP are (1) selection of necessary improvements and projects to implement the General Plan, (2) establishment of priorities to promote staged

development of capital facilities in a manner consistent with the General Plan, and (3) development of adequate and equitable financing for each project. The CIP should be

reviewed annually and revised to reflect the County's evolving needs and fluctuating

ONGOING REVIEW

Due to the nature of the General Plan, most of its implementation is an ongoing process. Further specification and guidance is extended through the development of urban service boundaries/spheres of influence, specific plans, and review under the California Environmental Quality Act (CEQA).

A sphere of influence represents the probable 20-year physical boundaries and service area for local cities or special districts. Within a sphere of influence, urban development will be directed to areas adjoining existing urban areas that are within the urban service boundary of a city or special district. The urban service boundary concept is designed to accommodate urban development phased over a five-year time period. It is anticipated that incorporating the urban service boundary concept into the overall General Plan framework will provide a valuable tool for controlling the location and timing of urban development in Monterey County.

Specific plans may be used in all or part of the County to ensure systematic execution of the General Plan. A specific plan must include all detailed regulations, conditions, programs, and proposed legislation to implement each of the required General Plan elements. By coordinating efforts of the public and private sectors in a detailed manner, specific plans provide for the efficient and focused application of General Plan policies in developing portions of the County.

Every proposed development project must be evaluated for potential environmental effect under regulations set forth in the California Environmental Quality Act. This review ensures that the same concern for the environment which went into the formulation of the General Plan will be brought to bear on each development project proposed under the Plan. Preparation of an environmental impact report will be required for those projects which may have significant effects on the environment.

The General Plan may be amended to reflect changing community values, conditions, and needs. With a few exceptions, no mandatory element may be amended more frequently than three times during any calendar year. Each amendment may encompass several different changes. General Plan amendments are considered projects and are subject to environmental review under CEQA. The Plan should only be considered for amendment when the County determines, based on new information, that a change is necessary.

Monterey County's Growth Management Policy and its General Plan must be consistent with one another. Data and policies in the Plan supporting the objectives of growth management can provide a solid rationale upon which the regulations may rest. A share of the countywide growth management allocation shall be incorporated into each area plan.

The Growth Management Policy and the General Plan should be in harmony to avoid conflicts. Competing interests, obligations, and objectives are balanced in the General Plan. Furthermore, tools used to implement the General Plan are often used to implement the Growth Management Policy: zoning and subdivision regulations and capital improvements program. Use of all implementation tools must be consistent with the General Plan.

CHAPTER VII: ENVIRONMENTAL IMPACT REPORT

State law requires that an EIR be prepared and certified before a general plan can be adopted. The EIR for the Monterey County General Plan was certified on September 29, 1982. This copy of the Monterey County General Plan does not contain the General Plan EIR and its accompanying Appendix G. However, the complete text of this EIR and Appendix G are available at the County Planning Department and also are available for review at the following libraries:

BIG SUR LIBRARY

CARMEL (HARRISON MEMORIAL) LIBRARY

CARMEL VALLEY BRANCH LIBRARY

CASTROVILLE BRANCH LIBRARY

HARTNELL COLLEGE LIBRARY

KING CITY LIBRARY

MONTEREY CITY LIBRARY

PACIFIC GROVE LIBRARY

PRUNEDALE BRANCH LIBRARY

SALINAS (JOHN STEINBECK) LIBRARY

SEASIDE BRANCH LIBRARY

SOLEDAD BRANCH LIBRARY

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

The General Plan, will guide decisions to be made by the Board of Supervisors and Planning Commission, and therefore will have a significant effect on Monterey County's environment. This environmental impact report (EIR) provides an analysis of the proposed plan's environmental effects as required by the California Environmental Quality Act (14 Cal. Admin. Code Sec. 15037a(1)). Although a general plan and an EIR for a general plan are legally distinct, they must address many of the same concerns.

The similarities between the General Plan and its EIR, however, do not extend to their distinctly separate mandates. Given the expectations for growth and development in Monterey County, the General Plan establishes the type and location of development and, through its implementation, the rate of growth. The environmental review makes known the adverse consequences of that growth. This EIR, in conjunction with the general plan text, contains all of the requirements of CEQA as specified in Article 9 Section 15140.

Many of the CEQA requirements for this General Plan EIR have already been satisfied in various sections of the General Plan or in its numerous background reports. Where this is the case, rather than repeat this information in the EIR, appropriate sections are referenced with an explanation of how the particular requirement has been met. Complete sets of the background reports are available at all public libraries in Monterey County, and at the County Planning Department Office in Salinas.

PROJECT DESCRIPTION

A description of the Plan is contained in its Preface (p. i) and Introduction (pp. 1-7). These sections describe the County's general planning process, including its requirements, past plans, preparation, organization, and relationship to other County plans. The project formally consists of the Plans goals, objectives, and policies and the land use plan. The project is divided into general subject areas as follows: Natural Resources (pp. 16-24), Environmental Constraints (pp. 38-41; 54-62; 72-78; and 81-83, Human Resources (pp. 93-94), and County Development (pp. 101-111; 114-115; 123-132; and 138-150). The land use plan is described on pages 153-169.

Of the 2,127,360 acres encompassed by the County, 1,504,510 acres are under the County's jurisdiction and the purview of the General Plan. The County's land use decisions, however, can also be expected to influence the 12 incorporated cities within its boundaries, and its neighboring counties. These neighbors include Santa Cruz County to the north, San Benito, Kings, and Fresno Counties to the east, and San Luis Obispo County to the south.

ENVIRONMENTAL SETTING

A series of 18 General Plan background reports preceded the draft of the General Plan update. Brief summaries of the information contained in the background reports can be found in the Plan, indexed under each chapter as follows: Natural Resources (geography and climate; geology, minerals and soils; water resources; vegetation and wildlife habitats; ocean resources; environmentally sensitive areas; and energy resources); Environmental Constraints (seismic and geologic hazards; flood hazards; fire hazards; miscellaneous hazards; air quality; water quality; and noise hazards); Human Resources (demography; social and economic setting); and County Development (existing land use; current holding capacity and zoning; transportation; public services and facilities; and housing). Should a greater level of detail than is contained in the summaries be desired, Table 10 provides a cross reference between each of the Plan's major subjects and the appropriate background reports. The relationship between the nine required general plan elements, the various permissive elements, and the components of the Monterey County General Plan is explained in Table 1 of the General Plan text. A listing of selected references used in preparing the plan and its background reports is located in Appendix D (page D-1). Additional references are cited in the footnotes of each background report.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This environmental assessment section consists of a matrix of environmental effects and a list of impacts and mitigation measures. The environmental effects matrix (Table 11) contains all of the General Plan's goals, objectives and policies which would have an impact on the environment. Only those goals and objectives which lacked clarifying policies were assessed for their potential impacts. Impacts from all other goals and objectives were assessed under their associated policies. Natural and man-made resources are listed across the top of the matrix. Goals, objectives, and policies contained in the Plan are listed vertically on the left side of the matrix in the same order as they appear in the Plan.

The matrix was scored with a plus or a minus symbol depending on the type of impact each policy might have on a particular aspect of the environment. A plus (+) symbol indicates a potentially beneficial impact. A minus (-) symbol indicates a potentially adverse impact. In some cases, policies were determined to have both potentially beneficial and adverse impacts. Where this was the case, the box was scored with both symbols.

Following the matrix is a listing of impacts and associated mitigation measures which describe in a general way: 1) the potential impacts on each resource and 2) the measures which would mitigate those potential impacts. Only those policies which were felt to have a significant effect on the environment appear in the matrix. Impacts on each resource were ascertained by reading down each of the resource columns of the matrix and determining the type of impacts posed by the various objectives and policies. These impacts were then generalized into broad types and listed under each of the resources affected. Impacts of and mitigation measures for four major capital improvement projects shown on the land use map are discussed at the end of this section.

TABLE 10
Cross Reference of General Plan Subjects With Background Reports

Subject	***Report(s)***
Natural Resources	Physical Features and Natural Resources of Monterey County; Overview of Monterey County Archaeology
Seismic and Other Geologic Hazards	Environmental Constraints Analysis of Monterey County, Part I: Seismic and Geologic Hazards
Flood, Fire, and Chemical Hazards	Environmental Constraints Analysis of an Emergency Preparedness Monterey County, Part II: Flood, Fire and Miscellaneous Hazards; Emergency Preparedness
Air and Water Quality	Environmental Constraints Analysis of Monterey County, Part III: Air and Water Quality
Noise Hazards	Environmental Constraints Analysis of Monterey County. Part IV: Noise Hazards
Population, Economic, and Socioeconomic Monterey Social Characteristics	Demographic Analysis of Monterey County, Analysis of Monterey County; Historical Overview of Monterey County; Agricultural Background Study of Monterey County
Land Use	Existing Land Use of Monterey County; Agricultural Background Study of Monterey County; Historical Overview of Monterey County
Current Holding Capacity and	Current Holding Capacity of Monterey Zoning Analysis County
Transportation	Transportation Analysis of Monterey County
Public Services and Facilities	Public Services and Facilities Analysis of Monterey County; Fiscal Capacity Analysis of Monterey County; Parks and Recreation Element Background Study
Housing	Housing Needs Analysis, Housing Plan

TABLE 11
Natural Resources

TABLE 11
Natural Resources (Contd.)
Seismic and Other Geologic Hazards
Flood, Fire, Miscl. Hazards & Emergency Preparedness

Table 11
Flood, Fire, Miscl. Hazards & Emergency Preparedness (Contd.)
Air and Water Quality

Table 11
Air and Water Quality (Contd.)
Noise Hazards/Human Resources/Land Use

Table 11
Land Use (Contd.)
Transportation

Table 11
Transportation (Contd.)
Public Services & Facilities

Table 11
Housing

GEOLOGY

Impacts

1. The development of land underlain by fault traces could result in severe property damage and human casualties in the event of a major earthquake.

2. The development of land subject to slope failure could result in landsliding during an earthquake, resulting in property damage and human casualties.

3. The development of land subject to liquefaction could result in ground failure during an earthquake, resulting in property damage and human casualties.

4. Development in low-lying coastal plains could expose County residents and property to rapid inundation from tsunamis, or waves generated by undersea seismic phenomena occurring great distances from the Monterey Coast.

5. Existing sub-standard structures throughout the County could fail during a moderate-to-major earthquake, causing property damage and human casualties.

6. Transportation systems in the County could be disrupted due to the failure of existing substandard structures and facilities.

7. Information on site specific geologic hazards in high risk areas which is introduced late in the review process may allow improper siting and engineering.

*Mitigation Measures**

1. The potential hazards of developing on fault traces would be mitigated by policies 15.1.1 through 15.1.6.

2. Slope failure due to seismic activity is addressed by policies 15.1.1, 15.1.4 through 15.1.6, and 15.1.8.

3. Liquefaction hazards would be mitigated by policy 15.1.7.

4. Tsunami hazards would be reduced to insignificant levels with the implementation of policies 15.1.1 and 15.1.14.

5. Seismic hazards due to substandard structures would be reduced to insignificant levels through policy 15.2.1.

_____

*Mitigation measures apply to the potential impacts with the corresponding number in each of the resource categories.

6. Impacts to transportation systems due to seismic activity would be mitigated by policies 15.2.2 and 15.2.4.

7. Site specific geologic hazards would be identified early in the development review process through policies 15.1.4, 15.1.5, 15.1.6 and 15.1.7.

SOILS

Impacts

1. New development could result in a reduction of prime agricultural soils available for cultivation.

2. Continued development, with attendant grading activity and concentrated runoff, would increase the erosion potential of adjacent and/or downstream properties.

Mitigation Measures

1. The development of prime agricultural soils would be reduced to an insignificant level by objective 4.1, and policies 4.1.2, 4.1.3, and policies 30.0.1 through 30.0.5.

2. Increased erosion hazard would be mitigated by policies 3.2.1 through 3.2.4, 15.1.12, 15.1.15 and 17.3.13.

HYDROLOGY

Impacts

1. Inadequate drainage facilities associated with new development may concentrate runoff and may generate flows in excess of drainage system capacity.

2. New development could significantly reduce groundwater recharge due to an increase in impervious surface area.

3. Development in floodplains could result in severe property damage, human casualties, and increased flooding downstream in the event of a major flood.

4. Development in dam inundation areas could result in severe property damage and human casualties in the event of total dam failure and subsequent flooding.

5. Groundwater supplies may be significantly reduced by overdrafting, with consequent impacts to vegetation and water quality, particularly where saltwater intrusion may occur.

Mitigation Measures

1. Inadequate drainage facilities resulting from new development would be mitigated by policies 5.1.2, 5.2.1, 5.2.2, 16.2.6 and 16.2.7.

2. Reduced groundwater recharge would be mitigated by policy 5.1.2.

3. Hazards resulting from development in floodplains would be reduced to insignificant levels by policies 16.2.1 through 16.2.5.

4. Hazards resulting from development in dam inundation areas would be reduced to insignificant levels by policy 16.2.1.

5. Groundwater depletion due to overdrafting would by mitigated by policies 5.1.2, 21.1.10, and 53.1.3 through 53.1.5.

VEGETATION

Impacts

1. Increased development could result in the reduction of native habitat.

2. Increased development could result in the loss of habitat vital to rare and/or endangered plant species.

3. New development could remove existing mature trees.

4. Increased development could significantly decrease or eliminate areas of unique biotic habitat.

Mitigation Measures

1. Significant losses of native botanical habitat would be reduced to insignificant levels by policies 7.1.1, 7.1.2, 7.2.2 and 20.1.3.

2. Significant loss of habitat vital to rare or endangered plant species would also be reduced to insignificant levels by policies 7.1.1, 7.1.2, 11.1.1 and 20.1.3.

3. Significant losses of existing mature trees would be mitigated by objective 8.2.

4. Depletion of unique biotic habitat would be reduced to insignificant levels by policies 7.1.1, 7.1.2, 10.1.2, 11.1.5, and 16.2.9.

WILDLIFE

Impacts

1. Development across or within established wildlife corridors would significantly affect wildlife populations by restricting feeding and breeding.

2. Development within areas of unique importance to fish and wildlife populations could significantly impact fish and wildlife populations.

3. Habitat vital to the existence of rare, endangered, or threatened wildlife species, could be irretrievably damaged or destroyed by new development.

Mitigation Measures

1. Development in wildlife corridors would be mitigated by policy 9.1.1.

2. Impacts resulting from the development of unique areas vital to wildlife would be mitigated by policies 9.1.1, 9.1.2 and 11.1.3 through 11.1.5.

3. The reduction of habitat for rare, endangered, or threatened species would be reduced to insignificant levels by policy 9.1.1 and 11.1.2.

ENERGY CONSERVATION

Impacts

1. New development may increase demands for energy in all land use categories--agricultural, industrial, commercial, residential, recreational, etc.

2. New development areas may require increased consumption of transportation energy for each trip.

Mitigation Measures

1. The increased impacts on energy use which new development would generate would be effectively mitigated by objective 13.1 and policies 13.3.1 through 13.3.3.

2. Transportation energy per generated trip, as increased with new development, would be mitigated by policies 13.2.1, 13.2.2, 37.4.1, 37.4.2, 37.5.1 and 38.1.4.

VISUAL

Impacts

1. New development within scenic corridors could significantly reduce the visual resource in that corridor.

2. Increased development elsewhere in the County where unique features of high scenic value exist could irretrievably compromise those features, even without covering or defacing said features.

Mitigation Measures

1. Impacts to scenic corridors would be reduced to insignificant levels through the implementation of policies 40.3.1 and 40.3.2.

2. Impacts to unique features of scenic value, resulting from increased development, would be mitigated by policies 7.2.1, 26.1.9 and 56.2.2.

AIR QUALITY

Impacts

1. Reduction of the County's forests and open spaces will reduce the capacity of these areas to photosynthesize carbon dioxide into oxygen.

2. The air quality of Monterey County could be significantly impacted by increased development in the County, with attendant transportation, dust, and particulate pollution.

3. The air quality of Monterey County could be significantly impacted by increases in heavy industrial land uses due to the particulate and photochemical pollution associated with such uses.

Mitigation Measures

1. The reduction of forest and open space lands would be mitigated by policies 4.1.2, 4.1.3, 16.2.9 and 20.1.3.

2. Impacts to air quality as a result of increased development in the County would be reduced by policies 20.1.1, 20.1.2 and 20.1.4.

3. Impacts to air quality resulting from the establishment of new heavy industries in the County would be reduced by policies 20.1.2 and 20.2.1.

WATER QUALITY AND SEWAGE

Impacts

1. The insufficient management of wastewater effluent generated by new development could significantly impact public health by contaminating soil, groundwater, and surface water.

2. Increased dumping of agricultural wastewater into surface waters and aquifers, coupled with increased pesticide use and the increasing chemical complexity of commercial pesticides and herbicides, could significantly impact public health and safety.

3. Development in areas having low suitability for septic sewage systems could significantly impact public health and safety due to overloading of septic systems and slope failure.

Mitigation Measures

1. The adequate treatment and disposal of effluent would be ensured by policies 21.1.6 through 21.1.9, 54.1.3, 62.1.2 and 62.1.5.

2. Water quality impacts generated by the distribution of agricultural wastewater would be mitigated by policies 21.1.3, 21.1.4, 21.2.4, 54.2.1 and 54.2.2.

3. Impacts to public health and safety resulting from the proliferation of septic systems in areas of marginal suit ability for septic systems would be mitigated by policies 3.2.1, 21.3.3 and 21.3.4.

NOISE

Impacts

1. Development in the County may lead to an increase in existing noise levels on adjacent lands and within transportation corridors with a corresponding decrease in relative property values, reduction in the quality of life, and increase in human stress.

2. Development in the vicinity of noise-generating land uses could also adversely affect the quality of life and peace of mind enjoyed by the affected residents.

3. Land uses of an inherent noise-generating nature could adversely impact residents living in adjacent areas.

Mitigation Measures

1. The impacts of new development on existing noise levels would be mitigated by policies 22.2.1 and 22.2.6.

2. Noise impacts resulting from development adjacent to existing noise generators would be reduced to insignificant levels by policies 38.1.3, 42.2.1 and 48.3.1.

3. Noise impacts generated by specific new land uses would be mitigated by policies 22.2.4, 22.3.2 and 48.1.1.

TRANSPORTATION

Impacts

1. Increased development in the County could severely impact existing vehicular traffic corridors, exceeding the design capacities and decreasing the levels of service of several County roads and highways.

2. The lack of state funding to improve state highways to meet new demands generated by increased development could severely decrease the levels of service on state highways.

3. Increased tourism will result in corresponding increases in vehicular traffic and may reduce levels of service.

4. New development may increase demands on public transit.

5. Increased competition for use of roads and highways by motor vehicles and bicycles, plus decreases in levels of service, could decrease public safety.

Mitigation Measures

1. Effects of increased traffic would be mitigated by policies 20.1.2, 20.1.5, 28.2.3, 29.2.1, 29.2.2, 37.2.1, 37.2.2 and 38.1.3.

2. Increased demands on state highways due to new development would be mitigated by policies 37.2.1, 38.1.3 and 39.1.2.

3. Increases in vehicular traffic due to growing tourism would be mitigated by policies 20.1.2, 20.1.4, 28.2.3 and 37.2.1.

4. Increased demands on public transit would be mitigated by policies 20.1.5, 27.2.1, 37.1.1 and 37.5.1.

5. Traffic hazards created by increased bicycle use would be reduced to insignificant levels by policies 13.3.3 and 20.1.2.

PUBLIC SERVICES AND FACILITIES

Impacts

1. New development patterns may increase the demand for police surveillance and lengthen emergency response times.

2. Development in areas that lack organized fire protection face a greater risk of property loss and human casualty.

3. Decreases in the level of fire protection may increase fire hazards.

4. Significant impacts to public safety and security could result from the lack of communications, shelter, transportation, and emergency supplies in the aftermath of any major natural disaster.

5. Increases in development, county population, and tourism may increase the demand for regional park facilities.

6. Lack of coordination between all major groundwater users may degrade groundwater quality and reduce availability.

7. Lack of coordination between wastewater treatment facilities may contribute to inefficient treatment of wastewater.

Mitigation Measures

1. Impacts to police services resulting from new development would be mitigated by policy 46.2.1.

2. Impacts to new development in areas without protection from structural fires would be mitigated by policy 17.4.8.

3. Reductions in fire district levels of service would be mitigated by policy 17.2.2.

4. Public safety and security impacts resulting from major natural disasters would be mitigated by policies 16.2.10 and 19.1.1 through 19.1.3.

5. Increased demand for park services and facilities would be mitigated by policies 51.2.1, 51.2.2, 51.2.4 and 52.3.1.

6. Impacts resulting from the lack of coordination between major groundwater users would be mitigated by policies 6.1.1, 6.1.2, 21.1.6, 21.1.8 through 21.1.10, 21.2.2, 21.3.1, 53.1.1, 53.1.4 and 53.1.5.

7. Impacts resulting from the lack of coordination between wastewater treatment facilities would be mitigated by policies 21.3.1, 21.3.2, 21.3.4 and 54.1.3.

ARCHAEOLOGY AND HISTORY

Impacts

1. Development in areas of high archaeological sensitivity could irretrievably damage existing archaeological resources and severely compromise their cultural and scientific value.

2. New development in the County could result in the damage or loss of features and structures having significant historical value.

Mitigation Measures

1. Impacts to archaeological resources resulting from new development would be mitigated by policies 12.1.3 through 12.1.5.

2. Impacts to historical resources resulting from new development would be mitigated by policies 52.1.1 through 52.1.7 and 52.2.1.

HOUSING

Impacts

1. The protection and conservation of natural areas (wildlife habitats, threatened plants, mature native trees, etc.), farmlands, and mining operations could reduce the availability of land for residential development. The reduction in land available for residential development could have the net effects of increasing housing costs and displacing development to outlying areas.

2. Requiring development to (1) occur in growth areas, (2) avoid environmentally hazardous locations, and (3) respect the Countys rural character could limit the supply of land available for residential use and thereby increase housing costs.

3. Restricting residential development to be within road and highway capacities could decrease the amount of land available for development and/or increase the cost of development by requiring road improvements.

4. Maintaining the County's rural character could reduce housing density options and increase per unit housing costs.

5. Segments of the population may be precluded from entering the housing market in some areas because of more stringent building standards and their associated costs.

Mitigation Measures

1. Potential adverse impacts on housing supply due to preservation of agricultural, mining, and wilderness areas are mitigated by the vast amount of land available county wide and by policies within the General Plan. Increasing housing densities and encouraging in-fill development would further reduce potential adverse impacts. These are included in the Plan as objective 62.1, policies 62.1.6 and 62.1.7.

2. Potential adverse impacts to the housing supply and to housing costs would be mitigated by policies 57.1.1, 57.1.3, 58.1.1, 58.1.2, 58.1.5 and 58.1.6.

3. Potential impacts to housing supply and costs because of a lack of highway infrastructure would be mitigated by policy 58.1.1, 58.1.5 and 62.1.5.

4. Impacts to housing costs because of low density development would be mitigated by objective 58.1, policies 58.1.5, 60.1.1 and objective 62.1.

5. Increased housing costs due to higher building standards would be mitigated by policies 57.1.3, 58.1.3, 58.1.4, 58.1.7, 60.2.1, 62.1.8 and 62.1.10.

CAPITAL IMPROVEMENT PROJECTS

The following is a brief discussion of the impacts of, and mitigation measures for, the four capital improvement projects proposed in the land use plan summary. The land use plan shows three major circulation improvements: the Highway 101 bypass, the Hatton Canyon Freeway, and improvements to Highway 68.

First, Highway 101 is shown bypassing the Prunedale area from approximately Russell Road to San Benito County. While some of the right-of-way for this route has been acquired by the State of California, actual construction of the bypass is not anticipated prior to 1990. At present the State Department of Transportation is considering abandoning the route.

Construction of the bypass would result in significant adverse impacts to the environment including grading impacts, visual impacts, and increased noise levels along the route. The project would also be growth inducing by removing a constraint to development. To a lesser extent, wildlife in the project area would be adversely impacted, primarily through the blocking of migration routes and the relative isolation of wildlife communities located between the old and new freeway alignments. However, the magnitude of this impact has not yet been studied. The impacts of this project should be considered in a cumulative context due to the many forms of development pressure being exerted throughout the County. The extension of Pesante Road to Crazy Horse Canyon Road would impact residents in Pesante Canyon. The extension of the road would be growth inducing, and increased traffic will raise noise levels.

The proposed Highway 101 bypass would also have beneficial impacts in that relatively unsafe traffic conditions on the existing roadway would be reduced by construction of a safer

roadway. Traffic volume, and therefore noise and turning hazards, would be significantly reduced by the diversion of through traffic to the new route. Increased residential development could also be expected with the development of the Highway 101 bypass.

The adverse impacts already discussed would be mitigated by the use of extensive landscaping and visual treatment as proposed by policies 40.3.1 and 40.3.2 of the General Plan text. Locally occurring varieties of native plant species should be used. A split-level roadway would reduce the visual impact and the need for extensive grading. More specific impacts and mitigation measures would be discussed in the EIS prepared for the project once construction is authorized.

Second, the land use plan proposes that Highway 1 east of Carmel be routed through Hatton Canyon. While a thorough environmental assessment of this bypass would be prepared prior to proceeding with the project, several obvious impacts can now be anticipated.

Construction of a freeway through Hatton Canyon would require a significant amount of grading, with unavoidable visual impacts, particularly when viewed from Carmel Valley Road or from residences situated on the ridges which define the canyon. Increased noise levels would also adversely impact these residences.

Beneficial impacts resulting from this project would include increased vehicle safety over that provided by the existing roadway, improved traffic flow, and reduced noise levels along the existing route.

The significant adverse effects mentioned above could be reduced to insignificant levels by constructing a split-level roadway to minimize cuts and fills and to reduce visual impacts. Land sculpturing and landscaping the right-of-way--including extensive plantings of Monterey Pine (p. radiata)--would help mitigate visual and noise impacts. Further mitigation measures could be proposed by the EIR/EIS for the Hatton Canyon routing at such time that said report is prepared.

Third, the Plan proposes improvements to Highway 68. Near-term improvements would include a bypass near the Corral de Tierra Road intersection and the eventual widening of the highway to four lanes.

Construction of the bypass and widening of Highway 68 would include significant grading and vegetation impacts. This would result in an unavoidable visual impact, particularly when viewed from the foothills above. Changes in the highway's visual appearance may hasten the conversion of the areas rural character to one more urban. This is especially relevant because Highway 68 is a State Scenic Highway. A secondary impact from this project would be the increased noise generated by increased volume of traffic traveling at greater speeds. The project would be growth inducing for the entire area.

The proposed bypass and widening would also have beneficial impacts--primarily increased safety along the travel route and improved travel times.

The adverse impacts mentioned above could be mitigated by extensive land sculpturing, landscaping with native and naturalizing plant species, and with visual treatment as proposed

by policies 40.3.1 and 40.3.2 in the General Plan. Impacts of soil and vegetation disturbance could be mitigated by using the existing right-of-way and by providing a split-level roadway where necessary to reduce grading impacts. Growth inducing impacts would not be mitigated, but are justified by an overriding social concern--the provision of a safe highway. More specific impacts and mitigations would be discussed in the EIR prepared for the project once construction is authorized.

The land use plan also shows a dam and reservoir on the Arroyo Seco River at the area known as "The Pools." This is a proposed earthen dam for the impounding and distribution of surface water for agricultural and other uses, and to recharge aquifers in the Salinas Valley. A complete EIR/EIS will be prepared for the dam project prior to construction which will thoroughly address the specifics of the project.

The proposed dam and reservoir would have significant adverse impacts to the environment. The reservoir would flood a small portion of the Ventana Wilderness Area. Two rare and endangered plant species--Malacothalmus palmeri var. lucianus and Sidalcea hickmanii var. hickmanii--are believed to occur in the area to be inundated. There are, however, known sites for a number of these species within one mile of the Pool Reservoir site. Loss of wildlife habitat in riparian, oak woodland, and grassland areas would be compounded by their lost value as a scenic resource.

Beneficial impacts resulting from the construction of the dam would include improved recreational fishing, hydroelectric power generation, an agricultural water distribution system, the recharge of aquifers in the Salinas Valley, and the possible halting of saltwater intrusion into the 180- and 400-foot aquifers in the northern part of the Salinas Valley.

The adverse impacts mentioned above could be mitigated by establishing new plant populations in similar situations elsewhere in the forest. In order to reduce impacts to the wilderness area, boating on the reservoir could be prohibited. Water discharge from the dam could be required to include adequate flow for rainbow trout habitat. While this would not mitigate any specific impact resulting from the dam, it could offset adverse fishery impacts due to dam construction by improving upon existing natural conditions.

UNAVOIDABLE ADVERSE IMPACTS

Despite the mitigation measures identified in the preceding section, there will be some significant environmental impacts resulting from the implementation of the General Plan that cannot be entirely mitigated or avoided. The potential scope and intensity of these impacts vary considerably; the following table (Table 12) identifies these "unavoidable" impacts without reference to their relative environmental significance.

IRREVERSIBLE CHANGES TO THE ENVIRONMENT

Implementation of the General Plan represents a commitment to development of approximately 39,492 acres of partially developed and open space land. Although subsequent approval must be given before actual construction begins, the adoption of the General Plan forms the basis for these approvals.

Development in accord with the General Plan will entail irretrievable use of energy resources for project construction, heating and cooling of buildings, and transportation of people and goods. Construction of infrastructure, housing, and commercial buildings represents an irretrievable commitment of a variety of materials. The provision of water, electricity, and gas contribute to a depletion of natural resources, in some cases non-renewable. Urban development also creates a demand for public services.

While the transformation of agricultural/open space land to an urban community is not irreversible, the large amount of capital, materials, and energy invested in the project makes an eventual return to agricultural use within the development unlikely. Urban development of agricultural and open space land also results in an escalation of land values.

Reconfiguration of the existing topography will result in an irretrievable loss of natural land forms, existing native and naturalized vegetation, wildlife, and visual open space.

An irreversible impact on downstream watercourses will result from altered land use. The construction of impermeable surfaces will increase the amount of runoff to downstream watercourses. The quality of run-off will be irreversibly altered by the introduction of oils, trash, chemical fertilizers, insecticides, and other substances from new development.

Increased traffic noise and decreased air quality will be cumulative impacts associated with implementation of the General Plan.

Development of a dam at Arroyo Seco could allow for expansion of growth in the Salinas Valley by removing a water constraint. Conversion of open space to urban uses represents, for all intents and purposes, an irreversible change to the environment.

Some irreversible changes may accompany development at even very low densities, such as those recommended for the grazing and resource conservation land use categories. Development at minimum densities of from 10 to 160 acres would of course produce few of the dramatic environmental changes associated with urban development. However, given the often environmentally sensitive and remote nature of these areas, the potential changes from a

single or small number of residential units could have a much greater impact than if located in a more developed area. At residential densities of 160 or even 40 acre minimums there is less danger of overstressing critical resources, compromising sensitive habitats, conflicting with grazing operations, or allowing widespread exposure to environmental hazards. At a density of one residential unit per 10 acres, however, some conflicts could arise between residential uses and grazing operations and/or the maintenance of valuable resources--enough to establish an irreversible trend in an area from resource management to residential use.

SHORT-TERM USES VERSUS LONG-TERM PRODUCTIVITY

A basic premise of the General Plan is to achieve a proper balance between the County's need for growth and its need to conserve its resources for the future. The Plan arrives at this balance through a two-part process: the policy plan establishes priorities, while the land use plan translates those priorities into a map for guiding land use decisions.

The policy plan establishes policies that both encourage and discourage structural development. For example, residential and industrial development is encouraged to satisfy the County's needs for housing and jobs, while other policies restrict or prohibit development in order to preserve agricultural lands and protect other non-renewable resources. By directing growth to areas which can accommodate development with the least environmental degradation, long-term productivity is ensured.

The land use plan directs growth by establishing various land use categories which allow varying densities for development. In areas where farmlands and permanent grazing lands are to be preserved, for example, the density is only one residential unit per a minimum of 40 acres. For encouraging urban-type residential development, the density may range as high as 20 units per acre. Two of the land use categories in the plan, however, are not so definitive in their minimum or maximum densities. The rural grazing and resource conservation categories range from 10-acre minimums to 160-acre minimums.

The variable minimums for the two categories represent a greater degree of protection for the resources in some areas and less in others. If the intent of the plans policies is to maintain the long-term productivity of the resources on these lands then uniform protection of the resources should be afforded with a uniform minimum density. If, however, there is some rationale for establishing the variable densities based on environmental constraints or resource analysis, this rationale should be explained in the land use plan text.

TABLE 12
Unavoidable Adverse Environmental Impacts

Environmental Component		***Impacts***
Soils	--	Increased erosion.
	--	Removal of viable agricultural lands and grazing lands from production.
Hydrology	--	Degradation of watershed areas.
	--	Interruption of natural stream flows.
Vegetation	--	Reduction in expanses of native vegetation.
	--	Replacement of native plant species with exotic species.
	--	Removal of mature, native trees.
Wildlife	--	Reduction and displacement of species from loss and degradation of habitats.
	--	Changes in wildlife species composition.
Energy Conservation	--	Increased consumption of fossil fuels and other non-renewable energy resources.
	--	Continued inefficient use of energy resources.
Visual Impact	--	Continuing loss of open space and reduced scenic amenities.
Air Quality	--	Reduced air quality, primarily from mobile sources.
Water Quality/Sewage	--	Increased erosion and sedimentation in water courses.
	--	Continuing degradation of groundwater quality.
	--	Increased demand for sewage treatment facilities.
Noise Impacts	--	Increased ambient noise levels, particularly in the vicinity of major roadways.
Transportation	--	Increased traffic congestion and road safety hazards.
Public Services and Facilities	--	Increased demand for public services and facilities.
Archaeological/Historical	--	Increased potential for disruption of archaeological sites and loss of archaeological resources.
Housing	--	Increased demand on the available housing stock and on undeveloped land.

Source: Monterey County Planning Department, 1982.

GROWTH INDUCING IMPACTS

The General Plan guides growth by designating its type, density, and location. While market demand influences when and where growth will take place, the market will be guided to a degree by the General Plan. The plan offers an inducement for growth in areas designated for development or provision of services. Densities in these areas may range from 5 acres per unit down to 0.05 acres per unit. Conversely, the plan discourages growth in areas unsuitable for development or in valuable resource areas. Under the farmland and permanent grazing designations, for example, growth and development are discouraged by the minimum density of 40 acres per unit. For the rural grazing and resource conservation categories minimum densities range from 10 to 160 acres. The smaller minimum of 10 acres, however, may actually induce growth in some of the County's least populated areas by allowing splitting of very large parcels into numerous smaller ones with the possibility of a house being built on each new parcel.

The land use categories shown on the land use plan map (Figure 13) indicate the general types of development and maximum densities allocated throughout the County. Further descriptions of the types of development envisioned and their locations are provided in the land use plan text. The text also contains a table indicating the additional acreages allocated in the Plan for development. Residential acreage would increase by 36,951 acres under the Plan, with commercial and industrial acreages increasing by 253 and 1,336 acres, respectively.

Other growth inducements arise as constraints to development are removed. Some sewage systems are already at capacity, and many sections of County roads and highways are already carrying greater traffic loads than considered desirable in the Monterey County Transportation Plan (LOS "E" and "F" are considered undesirable levels of service); thus, these two factors provide major constraints for additional development. Whether implemented by the County or the state, construction of sewage treatment facilities and road and highway projects identified in the Plan would induce growth in those areas.

Similar inducements for growth may occur from another project proposed in the Plan, the Arroyo Seco dam and canal. The project would supply additional water to both agricultural and residential users in areas within the lower Salinas River watershed that are currently experiencing groundwater overdrafting problems. In those areas where this overdrafting has provided the constraint to development, supplying additional water could induce growth.

ALTERNATIVE TO THE PROPOSED PROJECT

Adoption of the no project alternative would extend the purview of the 1968 General Plan and sixteen sectional plans into the future. The 1968 General Plan projected and planned for a population of 529,000 by 1985. This figure is almost twice that of the current 1982 population of 296,000. Because of the greater development and lack of corrective actions, impacts associated with the 1968 General Plan are generally broader in scope and greater in severity than the proposed project. Table 13 provides a comparison between the proposed project and the "no project" alternatives.

Impacts to geology and soils would be in excess of those listed for the Plan. Residential development allowed by the 1968 General Plan would reduce the amount of agriculturally viable land from production, increase erosion potential, and expose more people to geologic hazards. Geologic hazards could become acute for development allowed near fault zones or other unstable geologic conditions.

Agricultural activities could also generate adverse soil impacts. Without remedial measures, current erosion problems due to intensive agricultural practices could be expected to prevail and worsen.

Secondary impacts from the above could include a decrease in agricultural production, a loss in revenue to the County, and increased costs to the County because of the increased provision of public services and disaster assistance.
Groundwater quality which is now acceptable in most areas for domestic use, may degrade further as effluents from septic systems concentrate in aquifers. Areas in North County, Carmel Valley, and near the City of Greenfield would be especially susceptible to contamination.

Groundwater quality for industrial use could also be adversely affected with implementation of the 1968 General Plan. Without corrective measures, continued overdrafting of the aquifers would further degrade water quality due to salt water intrusion. This could continue the increase in water cost as growers are forced to dig deeper wells.

Regional water supply demands would increase as a result of urban uses. With the growth proposed by the 1968 General Plan, areas experiencing water supply problems would increase, although the exact extent is not known. To some degree this demand may be offset by the reduction in agricultural land use and an associated reduction in water demand.

Hazards from flooding, fire, and chemical use would increase as development is allowed to continue in hazard prone areas. Exact impacts to structures and people are impossible to predict, but loss of some structures and increased human suffering can be expected.

Continued implementation of the 1968 Monterey County General Plan would also have adverse effects on the circulation system. Levels of service for the major roads and highways will continue to decrease as residential development occurs. Ultimately road improvements, including widening and the building of new roads, would have to take place to accommodate growth. This is one of the cumulative impacts of the 1968 General Plan.

Other cumulative impacts would affect air quality and the need for public services. Increased development, as allowed by the 1968 General Plan, could degrade the Countys air quality due to increased industrial use and vehicle miles traveled. Increased development would also amplify the demand for public services and facilities. This demand could exceed the Countys financial ability to provide services, resulting in economic hardship for the County.

TABLE 13
Comparison Between the Proposed Project
and no Project Alternatives

[ADA Compliant Transcription of Original with Added Chapter Numbers]

Appendix A
Monterey County
Growth Management Policy[1/]

The Board of Supervisors Finds and declares that managed growth and orderly development are essential to the proper utilization of land in Monterey County. Proper utilization of the land will contribute directly to the social, cultural, environmental, fiscal, and economic well-being of the County.

1. ***Establishment of Growth Areas***

   Managed growth must be incorporated into the General Plan of the County. In so doing, the General Plan must be written to include appropriate growth areas within the County. These areas must recognize the diversity among the lands of the County and provide for the planning of each area in a way that utilizes its unique characteristics.

   The policies for each planning area to be defined within the General Plan must countenance differences between the planning areas in terms of natural resources physical and environmental attributes, economic development, and sociocultural development. Furthermore, growth areas shall be designated only where there is provision for an adequate level of services and facilities such as water, sewer, fire protection, and drainage, and be coordinated with school authorities.

2. ***Development of Cities and Areas Around Cities***

   Cities have been created in Monterey County to provide urban areas with local governmental services essential to sound urban development such as sewers, storm drains, water, police protection, fire protection, neighborhood parks, schools, and community recreation programs. The ability of cities to cope with the social, economic, land use and political problems created by urbanization is dependent in large part on their ability to service and control urban development in their urban service areas.

1/ Adopted by Board of Supervisors Resolution #79-478 dated October 9, 1979.

Inhabitants residing in an urban service area of a city have a community of interest with that city and should e part of that city so that they may receive

necessary city services as well as participate in, and contribute to, the resolution of social, political, land use, and economic issues of their urban community. Community. Except as noted below, urban development should be discouraged in areas lying outside the boundaries of urban service areas in order to discourage premature and unnecessary conversion of open space outside the urban service areas.

3. ***Establishment of New Areas of Development Concentration***[2/]

New areas of development concentration shall, where appropriate, be encouraged if they can be shown to better achieve other aspects of growth management such as the preservation of prime agricultural lands or the protection of other natural resources. They shall provide urban services to the residences such as provision of water, sewage treatment, roads, commercial facilities, schools, and fire protection. Developments of this type should be proposed as specific plan amendments to the General Plan.

The Following criteria shall be used for the purposes of identifying any new "areas of development concentration" as that term is used in the Monterey County Growth Management Policy.

A) The area is not contiguous with existing concentrations, but is in reasonably close proximity to an existing city or other employment center and contains existing semi-rural development.

B) The area has available, or provision will be made for, appropriate levels of public services to serve the higher intensity land uses proposed for areas of development concentration.

C) The parcel sizes and ownerships of the undeveloped land within the area lend themselves to orderly higher intensity development rather than piecemeal or sprawl development. Such higher intensity development may be rural, suburban or urban in character, depending upon the natural resources, physical and environmental attributes, economic development, and sociocultural development of the particular area.

1/ Adopted by Board of Supervisors Resolution #79-478 dated October 9, 1979.

D) A new area shall no under any circumstances be located where it may adversely impact significant prime or productive agricultural lands.

E) Protection and conservation of the natural resources of the overall planning area, especially the scenic quality of rural areas and the preservation of prime agricultural land, will be enhanced by concentrating development within the designated area.

Open space should be retained wherever advisable to maintain the rural quality of life in the County. Clustering of development is to be encouraged. Development should be minimized on visually sensitive slopes. The density of development outside the urban service areas of urban concentrations should be low.

Minor subdivision will be discouraged, especially outside urban service areas. Minor subdivision approval will normally result in the property being rezoned to prevent further lot divisions.

Environmental research should be conducted on large segments of the County, coincidental with the planning areas or designated growth areas or sub-areas where possible. Developers will participate financially in this research through a prorate cost sharing arrangement at such time as their projects are filed.

It will be a goal for Monterey County to develop a proportionate share of housing affordable by low and moderate income families.

A new system of evaluation of applications shall be established. Each application should be according to its strengths and weaknesses in accordance with the General Plan and its policies and elements, except master plans adopted subsequent to this policy for planning areas shall be taken into consideration. Evaluation systems shall be the subject of public hearing before the Planning Commission and the Board of Supervisors prior to their adoption. The criteria of evaluation shall be written and made available to the public. Each applicant shall be given a numerical score based upon an analysis of the evaluation criteria. Applications not found to meet minimum evaluation criteria shall not be given further consideration.

2/ Added by Board of Supervisors Resolution No. 81-546, November 3, 1981.

Agriculture continues to be the basis of the economy of the County. Agricultural lands in Monterey are some of the world's finest. Productive agricultural lands are our greatest resource and must be preserved. Protection of this land can be provided through the use of such devices as zoning, scenic easements, and Williamson Act contracts. Furthermore, development of lands adjoining productive agriculture lands must be nonpolluting and not otherwise detrimental to the agricultural uses. The improvement of roads and other facilities serving areas of productive agricultural lands should be delimited consistent with the agricultural uses.

4. ***Priorities for Growth***

Priority for growth will be given first to infilling within existing urban areas. The next priority will be for development on lands adjacent to existing and densely settled urban areas where the necessary services and facilities are available, except where this impacts prime and productive agricultural lands. Growth areas adjoining urban areas shall be within the spheres of influence of the cities and coincide with the area to which the cities are providing services or in areas immediately surrounding high density concentrations with the County such as the Carmel Valley Village and Castroville, except as in paragraph #3

5. ***Low and Moderate Income Housing***[3/]

A managed growth program must consider, and provide for, the housing needs of all economic segments of the community. Toward this goal, it is the County's intent to increase residential densities in designated growth areas over those indicated as land use designations of the County General Plan. Residential densities may be increased only where such increase is determined to provide for low and moderate income housing needs and is in accord with environmental, health, and safety provisions, and where such increase in density is not unduly excessive and does not violate policies of the elements of the General Plan.

Appendix B
Glossary

Active Fault: A fault along which there has been displacement during the last 11,000 years.

Affordability: The ability of low and moderate income households to accommodate housing costs without having to pay a disproportionate share of their income. Those households occupying housing units whose housing costs are greater than 25% to 30% of their gross income are considered to be "overpaying."

Agricultural Land Uses: Those uses of an agricultural nature which occur on farmlands designated as prime, of statewide importance, unique, or of local importance. Agricultural land uses also include grazing and any other uses which occur on properties designated as agricultural on the General Plan and/or area plan land use map(s).

All-Weather Road Surface: A drivable road having a weight bearing capability to support the loads of fire fighting equipment used or likely to be used by the local fire protection agency.

Ambag: Association of Monterey Bay Area Governments—a voluntary association of local governments organized under the California Joint Powers Authority for the purpose of providing regional planning services in the areas of the economy, transportation, land use, housing, air quality, and water quality.

Ambient Air Quality: Existing air quality for an air basin or sub-basin.

Ambient Sound: Existing background sound.

Average Daily Traffic (ADT): The average number of vehicle traveling (in both directions) on a particular section of road during a 24-hour period.

Broadleaf Evergreen: A plant community encompassing the evergreen oak woodlands and forests whose representative species include madrone, tanoak, live oak, blue oak, and valley oak.

CEQA: California Environmental Quality Act of 1970—a public law requiring all public agencies (state and local) to prepare and certify an environmental impact report on

any project they propose to carry out which may have a significant effect on the environment. Shrubs usually found on dry slopes and ridges.

Chaparral: An evergreen plan community of drought-adapted shrubs usually found on dry slopes and ridges.

CNEL: Community Noise Equivalent Level—the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m. and after addition of ten decibels to sound levels in the night before 7 a.m. and after 10 p.m.

Coastal Scrub: A plant community related to the chaparral community in that it consists primarily of low-growing, woody shrubs. However, the coastal locale and heavier soils of the coastal scrub communities contribute to faster growing, more herbaceous plants than those in the chaparral communities.

Coastal Strand: A plant community most commonly comprised of low-lying succulent plants found on sand dunes and bluffs close to the ocean.

Collector Road: A road for traffic moving between arterial and local roads, generally providing access to adjoining land.

Commercially Valuable Timber: Wood used for building or carpentry, harvested at a rate greater that 2,500 board-feet per month or greater than 15,000 board-feet per year.

Coniferous Forest: A plant community dominated by concentrations of conifer trees, which in Monterey County include coast redwoods, closed cone conifers (such as the Monterey pine, bishop pine, Monterey cypress, and Gowen cypress), and combinations of Douglas fir, knobcone pine, ponderosa pine, Coulter pine, Sargent cypress, and Santa Lucia fir.

Conservation: For the goals, objectives, and policies discussed in this Plan, conservation means planned management of natural resources to prevent waste, destruction, or neglect.

County Scenic Route: A segment of roadway that has been officially designated by the Director of California Department of Transportation.

Critical Structure: A structure whose continued use during and after a disaster is critical or whose failure might be catastrophic. Examples of critical structures include large dams, plants manufacturing or storing toxic chemicals or explosives, hospitals,

utility centers not owned or operated by a public utility, fire and police stations, bridges, and structures which can accommodate large numbers of persons such as schools, hotels, civic buildings, and civil defense shelters.

Critical Watershed: That portion of the watershed which provides water for beneficial uses such as irrigation, municipal, domestic, commercial, industrial, and riparian habitats through recharge of the groundwater aquifer and/or surface water diversion and/or storage.

Daily Vehicle Miles of Travel (VMT): The average number of miles traveled daily (24-hour) on a particular road system.

dB: Decibel—a convenient scale for expressing sound pressure levels. Such a scale is needed because the human ear is sensitive to an extremely wide range of sound pressure levels. The decibel scale is a logarithmic scale based on pressure levels, and is expressed in a range of 0 to 140. Zero decibels is the lowest level of sound detectable by the human ear, while a jet aircraft takeoff at 200 feet measures approximately 120 dB.

dBA: A-Weighted Sound Level—the sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

Developable Lands: Those lands which are considered developable with regard to the County's policies, criteria, and standards as well as state law.

Development Rights: These rights, along with others such as mineral rights and water rights, are commonly associated with real property ownership. Development rights, subject to local, state, and federal regulations, provide the legal basis for property development.

Economic Base: Two types of industries make up a region's economic base: basic or export industries which produce goods and services that bring in income form outside the area, and service or residentiary industries which produce goods and services that are consumed by local residents.

Economic Development: A process to influence local economic conditions by stimulating private investment in existing and potential firms, thereby expanding an area's employment opportunities.

Encourage: For the goals, objectives, and policies discussed in this Plan, this word implies a general endorsement, but not necessarily administrative, financial, or other county support.

Farmlands: Lands classified in one of the following four categories of the Important Farmlands Inventory developed through the USDA Soil Conservation Service. Explicit criteria for each category is available at the local Soil Conservation Service office and at the Planning Department.

- Prime Farmlands – Land best suited for producing food, feed, forage, fiber, and oilseed crops, and having the soil quality, growing season and moisture supply needed to produce sustained high yields of crops economically when treated and managed according to modern farming methods. In California, these lands must be irrigated to qualify.
- Farmland of Statewide Importance – Land other than prime farmland that has a good combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. In California, these lands must be irrigated to qualify.
- Unique Farmlands – Land other than prime farmland and farm land of statewide importance that is currently used for the production of specific high value food and fiber crops.
- Farmlands of Local Importance – Land which meets all the criteria for Prime Farmlands or Farmlands of State wide Importance Except that it is not irrigated.

Farmlands of Local Importance: (See Farmlands).

Farmlands of Statewide Importance: (See Farmlands).

Fault: A fracture in the earth's crust along which there ahs been displacement of land masses relative to one another.

Fault: A fracture in the earth's crust along which there has been displacement of land masses relative to one another.

Fault Trace: The intersection of a fault with the earth's surface.

Fault Zone: A zone consisting of interconnected, closely spaced faults and fault traces.

Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technical factors.

Female Headed Household: Family where the principal income earner is a female and there is no spouse present.

Fire Department: The local fire authority or where no local authority exists, the County Fire Warden.

100-Year Floodplain: The area encompassing the 100-year floodway and the 100-year floodway fringe; a 100-year flood has one percent chance of occurring in any given year.

100-Year Floodway: That portion of the valley floor required to carry the water's flow; a 100-year flood has a one percent chance of occurring in any given year.

100-Year Floodway Fringe: That portion of the valley floor outside of the 100-year floodway which could be completely obstructed without increasing the floodwater surface elevation more than one foot at any point.

Fuel Loading: The quantity of flammable vegetation and other fuel per unit of land area. Fuel loading is one criterion for measuring fire hazards.

Fuel Management Plan: An action program to lessen the wildland fire risk by reducing the zone of combustible material or converting the zone to one less hazardous to fire.

Fuel Modification Zone: An area where the fuel loading has been reduced by converting one vegetative cover for another.

Goal: The ultimate purpose of an effort stated in a way that is general in nature and immeasurable; a broad statement of intended direction and purpose.

Grassland: A plant community consisting primarily of annual grasses and herbs on soils having too little moisture to support larger types of vegetation.

Ground Rupture: A break in the earth's surface along a fault, also called surface faulting.

Growth Areas: Areas designated for intensified development by the Housing Element as development Incentive Zones (DIZs), by the Growth Management Policy as Areas

of Development Concentration (ADC), or by the policies and the land use map as defined in this County General Plan.

Household: All persons occupying a housing unit.

Housing Unit: The place of permanent or usual abode, including a single family dwelling, a single unit in a two family dwelling, multi-family or multiple dwelling, a unit of a condominium or cooperative housing project, a non-kitchen unit, a mobile home, or any other residential unit which either is considered to be real property under state law or cannot be moved without substantial damage or unreasonable cost.

Inactive Fault: A fault along which there has been no major displacement for more than 3,000,000 years.

Intensity (Earthquake): A subjective determination of the severity of an earthquake at a particular place as judged by its effects on earth materials, structures and persons. Earthquakes are assigned to value form I to XII on the Modified Mercalli Scale.

LAFCO: Local Agency Formation Commission – a local agency comprised of city, county, and at-large representatives; established by state law to review and approve city incorporations, special district formations, annexations to and detachment from local agencies, and other boundary changes involving local governments.

Large Family: A family of five or more related persons occupying one household.

Ldn: Day-Night Average Level—the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night before 7 a.m. and after 10 p.m.

Level Of Service (LOS): An indication of a road's performance based on an evaluation of driving conditions, with six performance levels ranging from "ideal" (LOS A) to "forced flow" (LOS F).

Liquefaction: The loss of soil strength due to seismic forces acting on water-saturated granular soil; it is a common result of earthquakes in areas underlain by saturated unconsolidated deposits.

Local Road: A road providing direct access to abutting land and designed to discourage through traffic.

Low Income Household: A household whose income does not exceed 80% of the median income of the Standard Metropolitan Statistical Area (SMSA).

Magnitude (Earthquake): A quantitative measure of the energy released during an earthquake, as measured by a seismograph. Earthquakes are assigned numbers on the logarithmic Richter Scale—those rated above 7 are classified as major; 5 to 7, moderate; 1 to 5, minor.

Minor Arterial: a major road or highway serving local and long-distance trips in less concentrated traffic-generating areas and generally providing some direct access to adjoining land.

Moderate Income Households: A household whose income does not exceed 120% of the median household income in a given Standard Metropolitan Statistical Area (SMSA).

Multiple Dwelling Units: Duplexes, triplexes, and fourplexes.

Objective: A measurable goal; a statement of desirable accomplishment within a specific time frame that is definite enough to know when and if it has been achieved.

On-Site Development Density Credit: Credit to a developer who agrees to cluster development on a portion of a parcel in a manner which does not exceed the allowable overall density on that parcel. Credit is generally granted to preserve open space.

Open Space: Any open land or other space (such as a river) which is predominantly lacking in structural development. Open space includes natural areas, wetlands and open water wildlife habitats, farmlands and grazing areas, and park recreation areas.

Overcrowding: A condition which exists when housing units provide insufficient living space to meet the needs of a household. A housing unit is determined to be overcrowded when there are 1.01 or more persons per room.

Para-Transit: Accessor transportation systems, such as jitneys, car pooling, van pooling, taxi service, and dial-a-ride arrangements.

Planning Area: One of eight geographic sub-areas of Monterey County established for purposes of the General Plan Update Program. They are the Toro, North County, Greater Monterey Peninsula, Central Salinas Valley, South County, Greater Salinas, Coast, and Cachagua Planning Areas.

Policy: A specific statement guiding action and implying a clear commitment.

Potentially Active Fault: A fault along which the most recent major displacement occurred between 11,000 and 3,000,000 years ago.

Preservation: Use of long-term or permanent safeguards to guarantee the viability of natural or man-made resources.

Prime Farmland: (See Farmlands).

Principal Arterial: A high-volume major road or highway primarily serving through or long-distance travel between states, regions, or metropolitan areas with limited, if any, direct access to adjoining land.

Promote: For the goals, objectives, and policies discussed in this Plan, this word implies an endorsement reinforced with a moderate level of administrative, financial or other county support.

Public Utility: A company regulated by the California Public Utilities Commission.

Public Utilities facilities: Production, storage, transmission, distribution, and recovery facilities for water, sewage, energy, and other similar utilities owned or operated by a public utility.

Rare and Endangered Species: Plant and animal species identified by the California Department of Fish and Game, the United States Fish and Wildlife Service, the Smithsonian Institute and/or the California Native Plant Society as rare, endangered, and/or threatened.

Ridgeline Development: Development on the crest of a hill which has the potential to create a silhouette or other substantially adverse impact when viewed from a common public viewing area.

Right-Of-Way: A strip of land commonly allocated for transportation purposes, such as a public road, a railroad, or a utility transmission line.

Riparian Habitat: A natural plant community dependent upon a water body or water course, generally supporting a rich diversity of wildlife.

Riparian Woodland: A plant community with lush growths of trees and shrubs, supported by wet conditions along seasonally and permanently flowing fresh water streams and rivers.

Scenic Easement: The right to permanent scenic use of all or a portion of a given parcel. A scenic easement is generally granted to the County by the property owner in exchange for reduced property tax liability.

Scenic Highway Corridor: The visible area outside the scenic highway's right-of-way, generally described as "the view from the road."

Seiches: Back and forth waves of landlocked or semi-landlocked bodies of water caused either by sudden changes in atmosphere and wind pressure or by seismic activities.

Slope: The natural or artificial incline of ground, with the degree of incline numerically expressed as "percent slope," or the vertical rise divided by the horizontal run.

Soil Association: A grouping of soil series with similar properties.

Soil Series: A collection of soils with similar profiles developed from similar parent materials under comparable climatic and vegetational conditions.

Sphere of Influence: A plan for the probable 20-year physical boundaries and service areas for local cities and/or special districts.

State Scenic Highway: A segment of a state highway that has been officially designated by the Director of California Department of Transportation as part of the State Scenic Highway System.

Strategy: A means by which plans are devised and carried out to achieve a desired situation; for the purpose of this General Plan, strategies are realized through the use of goals, objectives and policies.

Strip Development: The development of urban uses such as housing or commerce in narrow bands, generally one lot deep, along the frontage of roads and highways.

Support: For the goals, objectives, and policies discussed in this Plan, this word implies an endorsement reinforced with a high level of administrative, financial, or other county support.

Tertiary Road: A roadway providing access frontage to not more than a total of 100 anticipated and existing dwelling units.

Total Holding Capacity: The sum of existing and potential residential, commercial, and industrial development allowable in the County under existing land use regulation.

Transfer of Development Rights: Also known as Transfer of Development Credits, this approach to land use regulation allows for development rights to be severed from a given parcel of land and legally transferred to another parcel known as a "receiver" parcel. The additional development rights may be bought and sold within the private marketplace or by public agencies. Once development rights are severed from a given parcel, that parcel is permanently restricted from property development.

Transit: Vehicles or systems engaged in the transportation of people of people by public or private conveyance, primarily rail or bus systems.

Tsunami: The term "tsunami," originated from the Japanese words "tsu" (harbor) and "nami" (wave), is used to describe sea waves of seismic origin.

Urban Service Boundary: The limits of an area within a sphere of influence which is expected to accommodate urban development over a five-year period.

Vacancy Rate: The ratio of vacant available housing units to the total housing stock in a given area which is used as an indicator of the general availability of housing. Critical vacancy rate for rental units 4.5%, for ownership units, 1%.

Very Low Income Households: A household whose income does not exceed 50% of the median household income in a given Standard Metropolitan Statistical Area (SMSA).

Viable: A used to modify agricultural lands, including all categories of farmlands and grazing lands, it is a measure of potential productivity of commercial agricultural commodities. Factors for consideration include, but are not limited to, the soils' inherent crop producing potential (or range site potential), climatic conditions, water accessibility, availability of developable water, parcel size when not contiguous to other agricultural lands, whether the land is contiguous with other agricultural lands, and whether modern management techniques are feasible on the property. Land does not cease to be agriculturally viable upon becoming feasible for development or through non-management.

Water Consuming Development: All development which requires water.

Watershed: An area or region drained by, or contributing water to, a spring, stream, river, lake, or other bodies of water.

Waterway: A natural drainage course for water, either perennial or intermittent, including rivers, streams, and creeks.

Wetlands: Plant communities that include fresh and salt water marshes, generally found in areas of shallow, standing or sluggishly moving water. Salt water marshes are partially in contact with the ocean so that they are influenced by tidal action and currents.

Williamson Act: Allows local government to enter into long-term contracts with agricultural land owners by lowering property taxes as an incentive to continue agricultural use of the land. Also known as the California Land Conservation Act of 1965.

Appendix C
Monterey County
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Appendix E
Subject Listing of Goals, Objectives, and Policies

Subject	Chapter Found	Goal, Objective, and Policy Number
Access	Chapter 1: Natural Resources	10.3.1
	Chapter 4: County Development	27.2, 27.2.1 28.2.2 29.2, 29.2.1, 29.2.2 37.5.2 51.2.3
Affordable Housing	Chapter 4: County Development	57, 57, 57.1, 57.1.1 57.1.2, 57.2, 57.2.1, 57.2.2 57.2.3, 57.2.4 57.2.5 59, 59.1, 59.1.1 59.1.2
Agricultural Lands	Chapter 1: Natural Resources	4., 4.1, 4.1.1 4.2.1
	Chapter 2: Environmental Constraints	21.1.4 21.2.4
	Chapter 3: Human Resources	24.1.1, 25.1.1
	Chapter 4: County Development	27.3.3 30, 30.0.1, 30.0.2, 30.0.3, 30.0.4, 30.0.5 30.0.6, 30.0.7 42.3, 42.3.1 60.2.1
Air Quality	Chapter 2: Environmental Constraints	20, 20.1, 20.1.1, 20.1.2, 20.1.3, 20.1.4, 20.1.5, 20.2, 20.2.1, 20.2.2, 20.2.3, 20.2.4, 20.2.5, 20.2.6, 20.2.7
	Chapter 4: County Development	38.1, 38.1.1
Air Transportation and Airports	Chapter 4: County Development	42, 42.1, 42.1.1, 42.2, 42.2.1, 42.2.2, 42.2.3, 42.3, 42.3.1
Archaeological Resources	Chapter 1: Natural Resources	12, 12.1, 12.1.1, 12.1.2, 12.1.3, 12.1.4, 12.1.5, 12.1.6, 12.1.7, 12.2
Bicycle Transportation	Chapter 4: County Development	37.4.2 39.2.2, 39.2.4, 39.2.6 45, 45.1, 45.1.1, 45.1.2 45.1.3, 45.1.4, 45.1.5, 45.2, 45.2.1, 45.2.2
Billboards	Chapter 4: County Development	26.2.17 40.2.1

Subject	Chapter Found	Goal, Objective, and Policy Number
Building Design Requirements	Chapter 1: Natural Resources	13.4, 13.4.1, 13.4.2, 13.4.3
	Chapter 2: Environmental Constraints	15.1.10, 15.2 15.2.1 15.5.1, 15.5.2, 15.5.3 17.4.2, 17.4.3, 17.4.10 20.2.1 22.2.2
Chemical Hazards	Chapter 2: Environmental Constraints	18, 18.1, 18.1.1
	Chapter 4: County Development	55.1.4
Circulation (see Transportation)		
Coastal Resources (see Ocean Resources)		
Commercial Land Use	Chapter 2: Environmental Constrains	20.1.4, 20.2.1 21.2.3
	Chapter 4: County Development	28, 28.1, 28.1.1, 28.1.2, 28.1.3, 28.1.4, 28.1.5, 28.2, 28.2.1, 28.2.2, 28.2.3 43.1.1
Development Incentive Zones	Chapter 4: County Development	57.2.5 58.1.2, 58.1.3, 58.2, 58.2.1, 58.3 61.2, 61.2.1, 61.2.2, 61.3.1 62.1.1
Development Potential (Holding Capacity)	Chapter 4: County Development	36, 36.0.1, 36.0.2, 36.0.3
Development Site Designs (see Seismic, Flood, and Fire Hazards, Air and Water Quality, Natural Resources, Land Use, Transportation, and Housing)		
Earthquake Hazards	Chapter 2: Environmental Constraints	15, 15.1, 15.1.1, 15.1.2, 15.1.3, 15.1.4, 15.1.5, 15.1.6, 15.1.7, 15.1.8, 15.1.9, 15.1.10, 15.1.11, 15.1.12, 15.1.13, 15.1.14, 15.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5, 15.3, 15.3.1, 15.3.2, 15.4, 15.4.1, 15.4.2, 15.4.3, 15.4.5, 15.5, 15.5.1, 15.5.2, 15.5.3, 15.5.4

Subject	Chapter Found	Goal, Objective, and Policy Number
Economic Development	Chapter 3: Human Resources	23, 23.1, 23.1.1, 23.1.2, 23.2, 23.2.1, 23.2.2, 23.2.3, 23.2.5, 24, 24.1, 24.1.1, 24.1.2, 24.1.3, 24.1.4, 25.1, 25.1.1, 25.1.2, 25.1.3
	Chapter 4: County Development	29.1, 29.3.2 30.0.5 47.4, 47.4.1 63, 63.1, 63.1.1
Emergency/Disaster Preparedness (see also Fire and Police Protection)	Chapter 2: Environmental Constraints	15.3.2 19, 19.1, 19.1.1, 19.1.2, 19.1.3, 19.1.4
	Chapter 4: County Development	46, 46.1, 46.1.1, 46.2, 46.2.1
Energy Conservation/ Resources	Chapter 1: Natural Resources	13, 13.1, 13.2, 13.2.1, 13.2.2 13.3, 13.3.1, 13.3.2, 13.3.3, 13.4, 13.4.1, 13.4.2, 13.4.3, 14, 14.1, 14.1.1, 14.1.2, 14.2, 14.2.1, 14.3
	Chapter 4: County Development	37.4, 37.4.1 38.1, 38.1.3 64, 64.1, 64.1.1, 64.1.2
Environmentally Sensitive Areas (see also Vegetation and Wildlife)	Chapter 1: Natural Resources	7.1, 7.1.1, 7.1.2 11, 11.1, 11.1.1, 11.1.2, 11.1.3, 11.1.4, 11.1.5, 11.2
Erosion and Soils Management	Chapter 1: Natural Resources	3.1, 3.1.1 3.2.3 5.2, 5.2.1 10.3.2
	Chapter 2: Environmental Constraints	16.1, 16.2 16.4, 16.4.1, 16.4.2 21.1.3, 21.1.4
Facilities Financing (see also Public Services and Facilities)	Chapter 4: County Development	26.1.4 31.1.2 54.1.2, 54.1.3, 54.1.4
Farmland (see Agricultural Lands)		
Farmworker Housing (See also Housing	Chapter 4: County Development	30.0.07 59.1.1 59.1.2 62.2.1

Subject	Chapter Found	Goal, Objective, and Policy Number
Fire Protection/Hazards	Chapter 2: Environmental Constraints	17, 17.1, 17.1.1, 17.1.2, 17.1.3, 17.2, 17.2.1, 17.2.2, 17.2.3, 17.3, 17.3.1, 17.3.2, 17.3.3, 17.3.4, 17.3.5, 17.3.6, 17.3.7, 17.3.8, 17.3.9, 17.3.10, 17.3.11, 17.3.12, 17.3.13, 17.3.14, 17.3.15, 17.4, 17.4.1, 17.4.2, 17.4.3, 17.4.4, 17.4.5, 17.4.6, 17.4.7, 17.4.8, 17.4.9, 17.4.10, 17.4.11, 17.4.12, 17.5, 17.5.1, 17.5.2, 17.6, 17.6.1, 17.6.2, 17.6.3, 17.6.4
	Chapter 4: County Development	46.1, 46.1.1
Flood Hazards	Chapter 2: Environmental Constraints	16, 16.1, 16.1.1, 16.1.2, 16.2, 16.2.1, 16.2.3, 16.2.4, 16.2.5, 16.2.6, 16.2.7, 16.2.8, 16.2.9, 16.3, 16.3.1, 16.3.2, 16.4, 16.4.1, 16.4.2
Forestry (see also Vegetation)	Chapter 1: Natural Resources	8, 8.1, 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.2
General Plan Consistency/ Planning Process (see also Intergovernmental/ Interagency Coordination)	Chapter 1: Natural Resources	1.1.1 8.1.2 13.1, 13.2, 13.3
	Chapter 2: Environmental Constraints	15.1.1, 15.5
	Chapter 3: Human Resources	25, 25.1, 25.1.2
	Chapter 4: County Development	26.1 32.1.1, 32.1.2 33.1, 33.1.1 36, 36.0.1, 36.0.2, 36.0.3 37.1, 37.1.2 39.2.3 40.1, 40.1.1, 40.2 51.1.1 58, 58.1, 58.1.1, 58.1.2, 58.1.3 63, 63.1, 63.1.1, 63.1.2, 63.1.3, 63.1.4, 63.1.5, 63.1.6
Geologic Hazards (see also Earthquake Hazards)	Chapter 2: Environmental Constraints	15, 15.1.4, 15.1.5, 15.1.7, 15.1.8, 15.1.9, 15.1.10, 15.1.11, 15.1.12, 15.1.13, 15.1.14, 15.2, 15.3, 15.3.1, 15.3.2, 15.4, 15.4.1, 15.4.2, 15.4.3, 15.4.4, 15.4.5, 15.5.2, 15.5.3, 15.5.4

Subject	Chapter Found	Goal, Objective, and Policy Number
Grading	Chapter 2: Environmental Constraints	15.1.12, 15.1.15 21.2
Grazing Lands (see Agricultural Lands)		
Growth Areas	Chapter 4: County Development	26.1.4 27.1.3 61, 61.1, 61.1.1, 61.2, 61.2.1, 61.2.2, 61.3, 61.3.1, 61.3.2
Growth Management	Chapter 1: Natural Resources	13.2.1, 13.2.2
	Chapter 2: Environmental Constraints	20.1.1 21.1.1
	Chapter 3: Human Resources	23.2.5
	Chapter 4: County Development	26, 26.1.1, 26.1.2, 26.1.4, 26.1.14, 26.1.15, 26.1.18 27, 27.1.1, 27.1.3, 27.1.4 28, 28.1 29, 29.1.2 41.1.3 54 56.1 63.1.5
Harbor Facilities and Activities	Chapter 1: Natural Resources	10.2.1
	Chapter 4: County Development	44, 44.1, 44.1.1, 44.1.2, 44.1.3, 44.2
Hazards (see also specific hazard categories	Chapter 4: County Development	27.3.1 42.3.1 48.1.1
Health and Medical Services	Chapter 4: County Development	48, 48.1, 48.1.1, 48.2, 48.2.1, 48.2.2, 48.2.3, 43, 48.3.1
Historical and Cultural Resources	Chapter 1: Natural Resources	12.2
	Chapter 4: County Development	51 52, 52.1, 52.1.1, 52.1.2, 52.1.3, 52.1.4, 52.1.5, 52.1.6, 52.1.7, 52.1.8, 52.2, 52.2.1, 52.2.2, 52.3, 52.3.1

Subject	Chapter Found	Goal, Objective, and Policy Number
Housing (see also Residential Development)	Chapter 4: County Development	47.2.1 48.1.1 52.1.7
	Second Units	57.1.1
	Manufactured	57.1.2, 57.2.2, 57.2.3,
	Zero-Lot-Line	57.2.1
	Accessory Apts.	57.2.4
	Mixed Uses	57.2.5
	New Construction	58, 58.1, 58.1.1, 58.1.2, 58.1.3
	Incentives	58.2, 58.2.1
	Affordable	57, 57.1, 57.1.1, 57.1.2, 57.2, 57.2.1, 57.2.2, 57.2.3, 57.2.4, 57.2.5 59, 59.1, 59.1.1, 59.1.2 60, 60.1, 60.1.1, 60.2.1
	Preservation	60, 60.1, 60.1.1, 60.2.1
	Suitable Sites	61, 61.1, 61.1.1, 61.2, 61.2.1, 61.2.2, 61.3, 61.3.1
	Land Bank	61.3.2
	Finance	62, 62.1, 62.1.1, 62.1.2, 62.1.3, 62.1.4, 62.2, 62.2.1
	Coordination	63, 63.1, 63.1.1, 63.1.2, 63.1.3, 63.1.4, 63.1.5, 63.1.6
	Energy Conservation	64, 64.1, 64.1.1, 64.1.2
	Fair Housing	65, 65.1, 65.1.1, 65.2
	Rentals	65.2.1, 65.2.2
	Shelters	65.3, 65.3.1

Subject	Chapter Found	Goal, Objective, and Policy Number
Industrial Development/ Land Use	Chapter 2: Environmental Constraints	20.2.1 21.2.3 22.2.4
	Chapter 3: Human Resources	24.1
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	Chapter 2: Environmental Constraints	15.1, 15.1.1 16.1, 16.2, 16.2.1, 16.2.2, 16.2.3 17.3.3, 17.4 18.1.1 20.1, 20.1.2, 20.1.5 21.2, 21.2.2, 21.3.3 22.2, 22.2.1, 22.2.3, 22.2.4
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Mineral Resources/Mining	Chapter 1: Natural Resources	2, 2.1, 2.1.1, 2.1.2, 2.2, 2.2.1, 2.2.2, 2.3, 2.3.1, 2.3.2, 2.4
Natural Resources (See specific natural Resources categories Such as Soils, Energy)		

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Noise Problems and Controls	Chapter 2: Environmental Constraints	22, 22.1, 22.1.1, 22.1.2, 22.1.3, 22.2, 22.2.1, 22.2.2, 22.2.3, 22.2.4, 22.2.5, 22.2.6, 22.3, 22.3.1, 22.3.2, 22.3.3
	Chapter 4: County Development	38.1, 38.1.2 42.2, 42.2.1 48.1.1
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Open Space	Chapter 1: Natural Resources	1, 1.1, 1.1.1, 1.1.2 8.2
	Chapter 2: Environmental Constraints	16.2.2
	Chapter 4: County Development	26.1.12 27.3.2 30.0.2 34, 34.1, 34.1.1, 34.1.2, 34.1.3, 34.1.4, 34.1.5, 34.1.6, 34.1.7 40.2.1, 40.2.2
Parks	Chapter 4: County Development	51, 51.1, 51.1.1, 51.1.2, 51.1.3, 51.2, 51.2.1, 51.2.2, 51.2.3, 51.2.4, 51.3, 51.3.1, 51.3.2, 51.4, 51.4.1 52.3, 52.3.1
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	Chapter 2: Environmental Constraints	15.1.2, 15.1.3, 15.1.4, 15.1.5, 15.1.6, 15.1.7, 15.1.8, 15.1.9, 15.1.11, 15.1.12, 15.1.14 16.1, 16.1.1, 16.1.2, 16.2.3, 16.2.5, 16.2.7, 16.2.8, 16.2.9 17.4.1, 17.5
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	Chapter 4: County Development	31, 31.1, 31.1.1, 31.1.2 37.5.2
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Railroad Transportation	Chapter 2: Environmental Constraints	15.2.4
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Recreation	Chapter 1: Natural Resources	5.3 9.3 10.2.1
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