Part VII
Public Safety Element
San Diego County General Plan

County of San Diego
ENVIRONMENTAL DEVELOPMENT AGENCY
April 2008

San Diego County Officials and Contributing Staff

Board of Supervisors:

Greg Cox, District 1
Dianne Jacob, District 2
Pam Slater-Price, District 3
Ron Roberts, District 4
Bill Horn, District 5

Planning Commission:

Michael J. Beck (Representing District 2)
Leon D. Brooks, Jr. (Representing District 4)
Adam Day (Representing District 5)
David B. Kreitzer (Representing District 3)
David Pallinger (Representing District 5)
John K. Riess – Chair (Representing District 1)
Bryan E. Woods – Vice-Chair (Representing District 2)

Environmental Development Agency:

Alan Colman, Agency Administrator

PLANNING DEPARTMENT

Eric Gibson, Interim Director
Jeff Murphy, Interim Deputy Director
Devon Muto, Interim Chief, Advanced Planning
Joe Farace, Planning Manager

OFFICE OF EMERGENCY MEDICAL SERVICES

Dr. Sylvia Micik, Director
Sarah Garcia, E.M.S. Coordinator

OTHER CONTRIBUTORS

C.E. Grover, Insurance Services Office
Stan Mourning, Spring Valley Fire Department
Charles Cooper, Ph.D., Chair, Fire Protection and Control Advisory Committee (FPCAC)
Lee Griner, Member, FPCAC
Ray Stelzner, Ph.D., County Sheriff's Office
William McCracken, County Sheriff's Office
Carl Eckland, San Diego Police Department
Allen Foster, San Diego Police Department
Bob Polansky, Criminal Justice Planning Board
Allan Mayo, County Office of Environmental Management
Ray Rapp, County Office of Emergency Services
Bob Lawrence, County Fire Services Coordinator
Ralph Escobar, County Office of Fire Services Coordinator
Robert Hively, Director, County Office of Communications
John Morrow, Forest IV, California Division of Forestry
Ray Stewart, Fire Protection Planning Officer, California Division of Forestry
Robert Robeson, Fire Captain, California Division of Forestry
Myron Lee, Fire Management Officer, U.S. Forest Service

Table of Contents

***Appendices C, D, E, F, & I available from Planning Department.**

Acknowledgements

This document has been prepared by the Public Safety Subcommittee of the Citizen's Committee on the General Plan with the assistance of County staff. The subcommittee wishes to thank all those who participated in the project, and extends special thanks to the Office of Emergency Medical Services, the Division of Forestry, and the Fire Prevention and Control Advisory Committee for their close work with the committee. The Planning Department staff would also like to take this opportunity to express sincere appreciation to the members of the Subcommittee for their long hours of volunteer work and expertise toward the preparation of this Public Safety Element of the General Plan.

Members of the Public Safety Citizen's Subcommittee

Margaret Castro, Chairperson
Assistant Program Director
Neighborhood House Association

William D. Clements
General Manager
San Diego County Deputy
Sheriffs Association

James A. Fox
Fire Chief
Rancho Santa Fe Fire Department

Gerald G. Loehr
President
Ametek/Straza Manufacturing Company

Lyn Pankhurst, Vice Chairperson
Board of Directors
Montgomery Fire Department

William B. Rippee
District Manager
Farmers Insurance Group

William H. Woods (Resigned)
Undersheriff (Retired)

Frank Underhill
Assistant Business Manager
Electrical Workers Local 569

Dick Jacobson
Executive Director
Comprehensive Health Planning

Tom Warburton (Resigned)
College Instructor; Developer

Distribution List

The following organizations or persons were extended the opportunity to critique the draft element for the purpose of maximizing the level of public and professional input to the Element.

Cities

Carlsbad, D. Agatep, Planning Director
Chula Vista, J. Peterson, Planning Director
Coronado, Tony Pena, Acting Community Development Director
Del Mar, Gary Binger, Planning Director
El Cajon, V.R. Henson, Planning Director
Escondido, D. Daugherty, Director, Community Development
Imperial Beach, J. Butler, Planning Director
La Mesa, Grant Burns, Planning Director
Oceanside, Acting Planning Director
National City, Malcolm C. Gerschler, Planning Director
San Diego, James Goff, Planning Director
San Marcos, D. Valeska, Planning Director
Vista, Brooks Cavanaugh, Planning Director

Other Governmental Agencies and Organizations

American Institute of Architects, San Diego Section
American Institute of Planners, San Diego Section
Building Contractors Association
California Department of Transportation
Citizens Coordinate for Century III
Comprehensive Planning Organization
Imperial County, Planning Department
League of Women Voters of San Diego County
Local Agency Formation Commission
Pacific Telephone and Telegraph Company
Riverside County, Planning Department
San Diegans, Inc.
San Diego County Unified Port District
San Diego County Water Authority
San Diego Fire Chief's Association
San Diego Gas and Electric Company
Sierra Club, San Diego Chapter
Special Public Services Agency
State Division of Forestry, John Morrow, Ray Stewart, Bob Robeson
State Fire Marshal
U.S. Forest Service, Cleveland National Forest, Myron Lee

Summary

This Element of the San Diego County General Plan has been prepared by the Public Safety Subcommittee of the Citizen's Committee on the General Plan. The purpose of the Element is to increase public safety be reducing the effects of various types of hazards. The policies and programs presented have been formulated from the findings researched in the field of public safety with this goal being paramount. Progress made toward its achievement should result in indirect benefits such as reducing property damage and social dislocation resulting from hazardous occurrences.

The safety hazards considered in the Element are related to fire, geology, and crime. Although the focus of the plan is on prevention, the Subcommittee has recognized emergency response as an important part of improving safety. A chapter on emergency services has therefore been included in the Element.

The plan proposes many policy and program recommendations to enhance public safety. Some of the more significant are summarized below:

Fire Hazards

Identification, reduction, or elimination of both structural and brush fire hazards.

Amendments to codes and ordinances which will result in increased fire safety.

Requiring necessary land use site constraints to reduce the impact of fire.

Development of a workable coordinated countywide fuelbreak and fuel management plan.

Geologic Hazards

Identification and delineation of geologic hazards.

Amendments to appropriate codes and ordinances to reduce risks associated with geologic hazards.

Implementation of the action programs identified in the Seismic Safety Element, many of which directly relate to non-seismic geologic hazards.

Crime Prevention

Determining the precise role physical planning can play in crime deterrence.

Utilizing crime research data in the review of and use proposals.

Strengthening the "defensible space" concept with a uniform building security ordinance.

Emergency Services

Continued funding of the Office of Emergency Medical Services and related programs such as the Poison Information Center.

Supporting regionalization of emergency medical services.

Development of a strong mobile paramedic program.

Development of contingency plans as necessary to improve the County's basic Emergency Plan.

This document was prepared in order to satisfy the State requirement for a safety element. The title Public Safety Element was chosen by the Subcommittee because it best represented the public service aspects of the material covered in the report.

Although this Element is only a beginning in safety planning, the Subcommittee believes that through implementation of its policies and programs the County can achieve a greater degree of safety for all San Diego County residences.

CERTIFICATES OF ADOPTION

I hereby certify that this plan is the Public Safety Element of the San Diego County General Plan and that it was approved by the San Diego County Planning Commission

5/16/2008
Date

John Riess, Chairman

Attest: Eric Gibson, Secretary

I hereby certify that this plan is the Public Safety Element of the San Diego County General Plan and that it was adopted by the San Diego County Board of Supervisors.

5.9.08
Date

Greg Cox, Chairman

Attest: Thomas Pastuszka
Clerk of the Board of Supervisors

Approved and/or authorized by the Board of Supervisors of the County of San Diego
Date 5/23/07 Minute Order No. 2
THOMAS J. PASTUSZKA
Clerk of the Board of Supervisors
By _____
Deputy Clerk

Chapter 1

Introduction

San Diego County residents are subject to a number of hazards which could have a significant adverse impact on life and property. The purpose of the Public Safety Element is to introduce safety considerations into the planning and decision-making processes in order to reduce the risk of injury, loss of life, and property damage associated with the hazards identified in the Element. The major areas addressed are:

Fire hazards

Non-seismic geological hazards

Crime prevention; and

Emergency services

The focus of the crime prevention chapter is on the consideration of site, building and landscape design techniques to lessen the opportunity of crime, often referred to as the "defensible space" concept. The chapter on emergency services considers those services which are desirable to reduce the impact of hazardous occurrences once they have taken place. Most of the attention of emergency services is on emergency medical services. Chapters 2 through 5 discuss various aspects of safety hazards and emergency services in the form of findings, policies, and action programs. The subcommittee believes that implementation of the Element's action programs will be an important step in reducing the risks to which local residents and their property could be subjected now or in the future.

It should be recognized that the scope of the Element is broad and the availability of data in many of the subject fields is limited. For these reasons, the Public Safety Element should not be considered as the final work in safety planning but rather, it should be seen as a foundation to be strengthened and built upon in the future.

Authority

State Legislation adopted in 1971 requires a Safety Element of all city and county General Plans (Government Code Section 65302.1). State guidelines for the preparation of this Element indicate the plan should identify fire and geologic hazards and propose measures to reduce loss of life, injuries, damage to property, and economic and social dislocation which may result from these hazards. (1) The guidelines also encourage that consideration be given to the crime prevention aspects of land use development such as planning for defensible space. See Appendix I

The area of jurisdiction for the Element is within the unincorporated County. Cities and public lands are not immune to hazards discussed in this Plan. Because hazards in one jurisdiction may spread and affect another, it is appropriate for the County of actively cooperate with other jurisdictions to reduce the risk to all citizens from hazards. The County can, by example and through joint action, be a major force in ensuring achievement of regional public safety improvements.

Relationship to Other General Plan Elements

Effectiveness of the complete General Plan depends upon the understanding of the interrelationship among the plan elements. Particularly strong relationships exist between the Public Safety Element and the Seismic Safety, Conservation, and the Land Use Elements.

The Public Safety Element and the Seismic Safety Element have the strongest relationship. They have similar goals, overlapping policies, and in many cases require a similar approach to reduce injury, loss of life, and property damage.

Conservation is a major consideration of the Public Safety Element as many of the policies and action programs lead to the preservation of natural vegetation and animal habitats through the reduction of brush fires. Similarly, the Conservation Element, particularly the water and soil sections, considers several public safety issues either directly or indirectly.

The Land Use Element can aid in the achievement of the goals of the Public Safety Element. This Element has included the consideration of certain hazardous areas in the classification of land uses and densities. Through restrictions on the development of hazardous areas, identified by careful investigations as proposed in the Public Safety Element, the Land Use Element will supplement the policies and action programs of this Element.

Multi-Jurisdictional Hazard Mitigation Plan

On October 19, 2004, the Board of Supervisors approved the Multi-Jurisdictional Hazard Mitigation Plan (HMP) in compliance with federal and state regulations intended to reinforce the importance of mitigation planning and emphasized planning for disasters before they occur. The HMP is a comprehensive assessment of natural hazards including costal storms, erosion and tsunami, dam failure, earthquakes, floods, rain-induced landslides, liquefaction, structure/wildfire fires, and manmade hazards, including technological and terrorism. The plan enhances public awareness and understanding, creates a decision tool for management, promotes compliance with State and Federal program requirements, enhances local policies for hazard mitigation capability, and provides inter-jurisdictional coordination of mitigation related programming. Those portions of the HMP that address risks subject to County jurisdiction resulting from seismic events and their consequences, other geological hazards, flooding, and wild land and urban fires (as set out more fully in Gov't Code sec. 65302(g)) are adopted as part of the Public Safety element of this General Plan. Any inconsistency between these provisions of the HMP and other provision of the Public Safety element shall be resolved in favor of the provisions most recently amended and approved by the Board of Supervisors.

The ongoing relationship among the plan elements is fundamental to the General Plan's objectives. Future action programs are dependent on the recognition of the need for continual coordination.

Risk Evaluation

Natural and man-made hazards of various types and degrees will always be with us. The risks they present need not be. In cases where damage from these hazards is a possibility, a certain degree of risk is involved. Of course, the greater the probability of damage, the greater the risk. Most individuals have

established the normal level of risk they are willing to accept. A skydiver, for example, has chosen to set his acceptable risk level somewhat higher than participants in most other sports.

The State guidelines for the preparation of the Safety Element suggest that an "acceptable risk" level be established as a part of the Element.(2) The guidelines define "acceptable risk" as:

> "The level of risk in which no specific action by local government is deemed necessary to protect life or property."

The Subcommittee believes that setting the acceptable risk level should not be the job of the planner, engineer or other professional. Rather, it is the job if interested citizens with input from the professional. The final decision to be made in setting the level must come from the Board of Supervisors as our elected representatives. It must be recognized that there is a cost associated with most measures taken to reduce risks. Funds spent on hazard reduction might alternatively be spent on providing better health care, making our automobiles safer, or in other ways reducing risks and improving the quality of life. An attempt has been made to balance the potential damage of hazards considered against the costs of mitigating these hazards. As a result of this process, a tentative level of acceptable risk has been established and the policies and action programs of the Element have been devised in an attempt to attain this level. (See Appendix G for further discussion of risk).

Goals

The term "goal", as used in the Element, is an aim or purpose which is general and timeless. A goal does not readily lend itself to measurement. The decisions and activities of County government pertaining to Public Safety will be guided by these goals:

> Minimize injury, loss of life and damage to property resulting from fire, geologic or crime occurrence.
>
> Maximize public safety factors in the physical planning process.
>
> Optimize organization and delivery of emergency services upon occurrence of fire, geologic activity or crime.

The Element's policies and programs are a means of realizing these goals.

Chapter 2

Fire Hazards

Fire hazards are a significant problem in San Diego County. The following findings, policies, and action programs are presented for the purpose of reducing the risks associated with these fire hazards. Both brushland and structural types of hazards have been considered. Through intensive research and study of fire safety conditions in the County, certain findings have emerged upon which specific fire safety policies and action programs have been based.

Findings

Finding 1: Uncontrolled fires are a major threat to life and property. Both structural and brushland fires (often referred to as wildfires) occur regularly in San Diego County. Although the normal brushland fire season is April through November, disastrous fires can occur anytime. The fear of structural type fires has resulted in the establishment of numerous fire protection districts throughout the County. The impact of the Laguna Fire of 1970 is still fresh in the minds of many San Diegans. *See Illustration 1* This conflagration resulted in the loss or destruction of 383 homes and 1,200 other structures ($5.7 million); 225,000 acres of trees and other watershed ($30 million); small dams ($3 million); and bridges and roads ($600,000). (3) The estimated total dollar cost of the Laguna Fire came to approximately $40 million. Fires claim nearly 12,000 lives and cost over $11 billion annually in the U.S. (4)

ESTIMATED ANNUAL U.S. FIRE COSTS

Property Loss	$ 2,700,000,000
Fire Department Operations	$ 2,500,000,000
Burn Injury Treatment	$ 1,000,000,000
Operating Cost of insurance Industry	$ 1,900,000,000
Productivity Loss	$ 3,300,000,000
TOTAL	$11,400,000,000

(Source: America Burning, 1973)

Finding 2: Most structural fire prevention measures taken in the County are undertaken for the safety of residents and property, as well as to reduce insurance premiums.(5) Fire insurance underwriters generally determine their premium rates for a given area based on compliance with insurance standards. These standards are established by the American Insurance Association (AIA) and compliance ratings are assigned by the local Insurance Services Office. Some of the fire prevention factors considered in determining rates are water supply, fire departments, fire alarms, building laws, fire prevention measures, and history of fire losses. Fire prevention planning which adequately considers these fire safety factors may substantially reduce insurance premiums.(6) Recently, some fire departments have begun to break with AIA standards and provide their own criteria for determining proper levels of fire protection.

Illustration 1

Finding 3: The two most important regulatory codes from the standpoint of fire safety are the fire prevention and building codes.(7) The County has adopted a Uniform Building Code (UBC) and will take action on adoption of a uniform fire code during 1975. These uniform codes are intended to serve only as minimum standards. Therefore, it is important that these minimum fire safety standards be adopted and strictly enforced by fire agencies in the unincorporated County. Both the fire prevention and building codes need to be continually reviewed for possible improvement. The Fire Prevention Officers' Association of San Diego County regularly reviews the codes and has recently proposed several amendments to the 1973 UBC.(8)

Finding 4: The County Zoning Ordinance contains provisions which act to reduce fire hazards. The Zoning Ordinance helps to prevent the construction of unsuitable or hazardous structures. For example, the Ordinance segregates industrial, commercial and residential uses and provides for the isolation of land uses which may create an excessive fire exposure to other properties. It also limits the height and bulk of buildings, specifies setbacks and distances between buildings, and regulates the lot coverage allowable as building area.

Finding 5: County subdivision regulation are used to reduce the risk of fire. These regulations are locally adopted laws which govern the process of converting raw land into building sites. Among the wide range of purposes they serve are those which relate to fire prevention and control. The regulations are a means of securing water systems of adequate size and pressure for fire-fighting and adequate roadway widths for emergency service vehicle access including maneuverability of fire trucks. Backcountry subdivision regulations (Board Policy I-26) require fuel or fire breaks, water availability and adequate fire protection services. As a part of the review process, the Planning Department seeks recommendations from fire and water districts within which the proposed subdivision is located.

Finding 6: The County Weed Abatement Ordinance recognizes weeds are a fire hazard and requires their removal under certain circumstances. The language of this Ordinance (#4179) has resulted in some enforcement problems. An improved ordinance is being drafted to replace the existing one.

Finding 7 Certain structures can be classified as "fire hazardous" and should be considered as public nuisances. Fire hazardous buildings are those which, upon ignition, permit the rapid spread of fire. They are generally characterized by substandard electrical wiring, open stairwells, and obsolete heating facilities. When combined with human carelessness or maliciousness, these deteriorated conditions offer a potential for disaster.

Fire hazardous buildings are a threat not only to their occupants but also to surrounding structures and fire fighters who risk their lives by fighting fires which need not have occurred. Local government has a responsibility to minimize these fire hazardous conditions. Through use of its "police power", the County can declare that specific acts or thing shall, under certain circumstances, be deemed public nuisances and may require their abatement. An example is the Weed Abatement Ordinance.(9) In addition, authority for the adoption and enforcement of local fire safety ordinances exists in Public Resources Code 4771. Zoning regulations have little impact on the elimination of fire hazardous structures. The nonconforming use provisions are essentially the only means of eliminating potentially fire hazardous conditions.(10)

The ramifications of lessening or eliminating the potential threat of fire hazardous buildings are considerable. The issues which must be considered involve equitable treatment of building owners,

relocation of existing occupants, the occupant's safety and welfare, minimization of adverse effects on the business community, and maintenance of an adequate community tax base (11).

Finding 8: Persons on whose property a structural fire starts as a result of an identified and uncorrected fire hazard cannot be found criminally liable.(12) According to common law, a person can be liable for damages to his neighbor's property from a structural fire which spreads from his own premises when such a fire is a result of negligence. However, the State Penal Code does not allow a legally liable property owner to be charged with criminal liability. The seriousness of fires requires that State legislation be considered to make such action a crime. Foreseeably, this would promote the type of discipline which is essential to the prevention of fires. Several cities have adopted ordinances which make a property owner liable to the city for the cost of the fire department's fire suppression efforts when such a fire occurs due to an uncorrected fire hazard which was ordered corrected (13).

Finding 9: Property tax laws act as a negative incentive in the improvement of structures from a fire prevention standpoint. Improvements made to structures increase their value and, likewise, the assessment of the structure, this can be considered a negative incentive for fire prevention when property owners consider adding major improvements such as an automatic sprinkler system.

Finding 10: The recommendations of the 1973 County-wide Fire Study represent a significant initial step toward improving fire protection services throughout the County.(14) This study was conducted by the Fire Protection Study Committee which was composed of technical experts and practitioners in fire prevention throughout the County. The Committee was established by the Board of Supervisors to study local fire protection services and recommend actions for improving these services. A few of these recommendations have been implemented such as the establishment of the Office of County Fire Services Coordinator and an ongoing Fire Prevention and Control Advisory Committee. The Study emphasized the need for coordination and eventual consolidation of fire districts in the unincorporated area. Several of this chapter's findings have been drawn from the conclusions of the study.

Finding 11: There are numerous special districts independently providing fire protection services in the County. Many deficiencies in the provision of fire protection services have been directly linked to the number of autonomous fire agencies in the County. These problems are particularly notable when fire services are viewed as a single, interrelated countywide system. Most of the problems are related to functional and economic efficiency. The 1973 Study found that much duplication existed throughout San Diego's fire protection service agencies (15).

Finding 12: Adequate water supply exists for fire suppression within organized fire protection districts, although deficiencies exists outside these districts in certain areas. Water is a critical element in fire protection. Of all the factors considered by the fire insurance underwriters, water supply is one of the more heavily weighted. The County has only limited control over placement of water facilities since the primary responsibility for water supply belongs with a multitude of water districts and agencies. Water districts either have their own standards for domestic water distribution facilities or they are guided by the recommendations of the fire officials in whose jurisdiction the facility will be placed. The influence the County does have related to water supply comes primarily from land division regulations and Board Policy I-26.

In an effort to more effectively fight wildland fires, the California Division of Forestry and the U.S. Forest Service have identified most existing water sources which can be used for fire suppression in their jurisdictional areas. Both agencies have also constructed water storage facilities to be used for fire suppression purposes. Even when all the available firefighting water sources are being utilized, water for wildfire suppression is generally inadequate in the County as it is for Southern California as a whole.(16)

Finding 13: A need exists to identify fire hazardous brushland areas by degree of severity. These areas need to be identified and mapped in order to provide a uniform basis upon which planners, developers, and fire authorities may more effectively plan, utilize and administer fire safety requirements. The California Division of Forestry (CDF) has proposed a program for the identification and rating of fire hazardous areas in the document, A Fire Hazard Severity Classification System for California's Wildlands (17). the local CDF Ranger Unit has begun work on the first phase of such a program for the areas within its jurisdiction. The Office of Fire Services Coordinator is also planning to initiate a countywide study in the near future.

Finding 13: Enforcement of the proposed County roofing ordinance will depend in part on the delineation of fire hazardous brushland areas.(18) This proposed ordinance specifies certain types of fire retardant roofing which must be used on structures within designated fire hazardous areas.

Finding 15: Legislation exists on the federal level which provides funds for fire protection in rural areas. The Rural Development Act of 1972, in its provisions for revitalizing the economy of rural areas, recognizes that fire protection must improve with development in rural areas. One section of the act provides loans for water supply systems for industrialized areas being constructed in rural communities. Title IV of the law provides for assistance in organizing, training, and equipping local fire protection forces. The assistance is both technical and financial with the Federal Government assuming up to 50 percent of the costs (19).

Finding 16: The pressures of growth in the San Diego area have resulted in many new developments being located on brush covered hillsides or in intervening canyons. Most of these areas are subject to brush fires. Jurisdictions that have authority over these areas have attempted to protect life and property from the threat of fire. On the local level, various safety provisions of subdivision, lot split, zoning and public nuisance ordinances, as well as building and fire codes have been discussed. In addition to these regulations, the State has a brush clearance law affecting structures "upon or adjacent to brush or grass covered land."(20) Public Resources Code Section 4291 gives certain agencies authority to require a 30-foot clearance around structures in brushlands. In many cases, such a clearance is adequate; however, some wind-blown fires may occur despite the availability of these and other safety provisions.

Finding 17: Fire suppression services are hampered by road and site design in some areas of the County. Access is a particular problem where hillside developments are located on narrow, twisting, dead-end streets. It is not only difficult to evacuate such areas, but also difficult to move fire equipment into them.(21) Another problem is inadequate street-signing and house-numbering. Clear identification can eliminate confusion and help expedite rescue efforts (22).

Finding 18 Vegetation, topography and weather interact to determine whether a brush fire can be easily controlled or become a holocaust.(23). Chaparral, sage and other native plant life provide major sources

of fuel for fires in the County. This vegetation is extremely prevalent in easterly portions of the County and can be very combustible.

Topography in the form of rugged terrain, and particularly steep slopes, aid in the spread of fire by slowing the response time of fire crews and by acting to accelerate a fire to great speeds under the right vegetation and climatic conditions. The rapid spread of wildfires from canyons to ridge tops causes increased hazards for homesites on these ridges.

Climate is the factor that man has no control over. Hot, dry, and windy weather (typically brought about by Santa Ana conditions) leaves the chaparral and other brushland vegetation particularly susceptible to catastrophic fires. Our greatest brush fire threat exists when these conditions occur. Fortunately, the number of brushfires which occur with the worst of these conditions is small. However, those which do occur are typically catastrophic fires and render present prevention and suppression efforts relatively ineffective.

Finding 19: Native vegetation has been artificially prevented from undergoing the natural renewal process of periodic burning and regrowth. For at least the last 60 years, brushland fire suppression agencies have pursued a policy of artificial exclusion of fire. This effort to control and suppress all brushfires results in an abnormally high fuel buildup which provides the setting for holocausts like that of the Laguna and Boulder Creek fires of 1970.

Finding 20: The present system of fuelbreaks has not effectively prevented the spread of wildfires (24) This system does not break fuel fields into small enough units to prevent wildfires. Another problem is that agencies responsible for wildland management cannot effectively continue to maintain existing fuelbreaks due to insufficient funds and manpower. Due to the fuelbreak system's lack of effectiveness, the problem needs to be investigated. One alternative which is being considered is the combination of fuelbreaks with other forms of fuel management.

Finding 21: A comprehensive and coordinated fuel management plan for brushland fire control in the County does not exist. Although all agencies responsible for brushland fire prevention and suppression have a general fire plan, the lack of manpower and funds has prevented the preparation of a coordinated countywide fuel management plan (25).

The objectives of such a brushland management plan are to:

Minimize the catastrophic results of wildfires.

Apply and monitor practical results on an areawide bases over time.

Recognize a degree of fuel management approximating the scale of the wildfire problem.

Advance standards and criteria for applying multiple fuel management techniques.(26)

Such a plan has yet to be initiated due to the difficulty and cost of implementing as well as the lack of demonstrated public support (27).

Finding 22: The County in conjunction with local, state and federal fire control agencies has proposed a demonstrative fuel management project. The project would include 120,000 acres in the Laguna Mountains and be the first of its kind in the State. The project is to be known as: Chaparral Research,

Environmental Analysis, and Management (CREAM). The project is intended to be a coordinated effort to apply and monitor alternative techniques of fuel management.

Finding 23: The primary responsibility for wildland fire suppression lies with the California Division of Forestry and the United States Forest Service. Their jurisdictional areas include practically all chaparral and forested land in the County. Structural fire protection and prevention if the prime responsibility of special fire protection districts and volunteer departments in the unincorporated County. For protection of those structures not within a district or city, the County has contracted with the California Division of Forestry for service.

Presently, many structures in the County located outside organized fire protection district are left virtually unprotected because of their remoteness from fire fighting units which are committed to respond.

Finding 24: Mutual aid response does not mean automatic first response by the nearest fire fighting unit. Under the mutual aid system which is in effect in San Diego County, the fire protection agency having jurisdiction in the area where a fire has occurred is committed to respond to that fire. The Mutual aid system provides that the committed unit must reach the scene of the fire first and then determine outside aid is needed before it can be requested. In some cases, this procedure has led to costly delays.

The employment of a mutual response system which allows for the nearest fire suppression unit to respond immediately to all fires, regardless of political boundaries is both feasible and desirable. Several local fire agencies have successfully implemented such a mutual reponse plan.

Finding 25: The helicopter is an extremely valuable fire fighting and fire victim evacuation vehicle. Since the inception of the Sheriff's helicopter program REPONE (Aerial Support to Regional Enforcement Agencies, many fire agencies in San Diego County have received valuable aid in fighting both structural and brush fires. Fire fighting capabilities throughout the County would be further enhanced with the addition of a suitably equipped helicopter and crew assigned the primary task of fire suppression support.(9)

Policies and Action Programs

POLICY 1 The County shall seek to reduce fire hazards to an acceptable level of risk.

Action Program 1.1: Advocate and support full and continued funding of the fire protection provisions of the Rural Development Act of 1972. Direct the Special Public Services Agency to seek funds as they become available for the rural areas of San Diego County.

Action Program 1.2: Advocate and support revision in the State Penal Code to impose criminal liability on property owners for structural fires resulting from identified and uncorrected fire hazards.

Action Program 1.3: Advocate and support State legislation which would provide tax incentives to encourage the repair or demolition of structures which could be considered fire hazards. This legislation should also allow for minimal tax assessment of major fire prevention improvements made to structures.

Action Program 1.4: Direct the Special Public Services Agency to study and report on the feasibility of fire agencies providing fire inspections of residences at time of sale.

Action Program 1.5: Adopt an ordinance requiring roofing material to meet specified fire safety standards in all fire hazard areas.

Action Program 1.6: Encourage the International Conference of Building Officials to continue to make changes in the Uniform Building code that act to improve structures from a fire safety standpoint.

Action Program 1.7: Adopt a uniform fire code and require its strict enforcement.

Action Program 1.8: Direct the County Fire Services Coordinator, County Building Inspector and County Counsel to undertake a study to determine the need, legality, and cost of:

Adopting a County ordinance defining fire hazardous structures

Conducting an inventory and evaluation of fire hazardous structures to include identification of building occupancy -- type, value, age, and social and economic characteristics of occupants

Establishing priorities for the renovation, demolition, or necessary occupancy reduction of designated fire hazardous buildings

POLICY 2: The County will consider site constraints in terms of fire hazards in land use decisions. Within designated areas where population or building densities may be inappropriate to the hazards present, measures will be taken to mitigate the risk of life and property loss.

Action Program 2.1: Direct the County Fire Services Coordinator to identify and classify fire hazard brushland areas of varying severity and to specify the conditions under which development and use of these areas should occur. the study should be undertaken with the cooperation of all concerned agencies including the California Division of Forestry, the U.S. Forest Service, and the Environmental Development Agency.

Action Program 2.2: Direct the Environmental Development Agency (EDA) to undertake a study to determine the adequacy of land division regulations, The Zoning Ordinance, the Initial Growth Policy, and other planning implementation regulations as they relate to fire safety.

In conjunction with the study, planning and fire authorities shall be encouraged to apply examples of fire safety planning and fuel management techniques to an existing problem area. The purpose will be to illustrate the planning concept as it involves the basic relationship of fire protection to the development of brushlands. Such examples can be used to establish a mutual understanding of problems by planners, land developers, builders, engineers, and others concerned with land use and resource conservation.

POLICY 3 The County will support the planning and coordinate implementation of a countywide fuel break and fuel management system.

Action Program 3.1: Direct the County Fire Services Coordinator to prepare a coordinated plan for fuel breaks and fuel management for the County in cooperation with the California Division of Forestry, United States Forestry Service, County Environmental Development Agency and all other concerned agencies. As part of the plan preparation process alternative techniques for fuel management will be subject to environmental impact analysis.

POLICY 4: The County will support the improvement of the delivery of fire protection services through functional cooperation of fire agencies, and seek political consolidation which may lead to a unified countywide fire protection system.

Action Program 4.1: Direct the Chief Administrative Officer to implement the recommendations of the 1973 Countywide Fire Study, particularly those relating to coordination, cooperation and consolidation of fire protection agencies and/or their programs.

Action Program 4.2: Amend appropriate ordinances requiring new subdivisions adjacent to organized fire districts to annex to that district unless fire suppression services can be adequately provided in some other manner.

POLICY 5 The County will expand its data base on fire hazards including the history of past fires, potential fire, hazardous conditions and new techniques in fire suppression and prevention, and related disciplines. It will also utilize other available data bases such as the State's recently initiated California Fire Incident Reporting System (CFIRS) program.

Action Program 5.1: Direct the Special Public Services Agency to initiate a program to research and gather existing fire data for the San Diego region. The program will include the collection of information which will be useful for county projects and the various fire agencies in the County. For those programs which may be helpful to a large number of fire protection agencies, the County shall provide computer services consistent with the recommendation of the Countywide Fire Study.
See Appendix A

Chapter 3

Geologic Hazards

The California Government Code requires the Public Safety Element to include provisions to protect county residents from geologic hazards. This chapter proposes policies and refers to hazard designed to fulfill this requirement. Most of these action programs are contained in the Seismic Safety and Conservation Elements of the General Plan.

In addition to seismic hazards, flood and geologic hazards are considered in the Seismic Safety Element of the General Plan. Flood and geologic hazards such as landslides, liquefaction, and tsunamis are discussed in relation to earthquake hazards. The Conservation Element of the General Plan considers landslides, flood and erosion activity. Findings directly related to non-seismic geologic hazards have been drawn from these elements and are presented below.

Findings

Finding 1: The most significant non-seismic geologic hazards in San Diego County are slope instability and erosion (30). See Illustration 2

Finding 2: Slope instability and erosion problems in the County are primarily regulated through the building code and grading ordinance. The Uniform Building Code requires special foundation engineering and soils investigation on proposed development sites located in geologic hazards areas. These reports must demonstrate that either the hazard presented by the project will be eliminated, or there is not a danger for the intended use (31).

To minimize slide danger, erosion and siltation, a County grading permit must be obtained for all major earthmoving projects (32). Minor projects not requiring permits include:

1. Shallow excavations of five feet or less which move less than 200 cubic yards of earth from any one lot; and
2. Fills less than five feet high on natural grades less than 20%, which deposit less than 200 cubic yards onto any one lot, and do not alter off-site natural drainage patterns.

Finding 3: The major landslide areas in the unincorporated portions of the County include Rancho Bernardo-Poway and Santee-Fletcher Hills, San Ysidro-Otay and other limited areas within the Coastal and Peninsular Mountain Range. Grading operations in some of these areas have resulted in sloe failures and structural damage. In 1966, for example, eight homes were damaged beyond repair in the Santee area in a matter of minutes due to a massive slide (33). See Illustration 3

Finding 4: State law requires the seller of new housing to supply the prospective buyer with a soils report if requested (34). Although this information, if adequately reported, would assess the probability of geologic hazard upon development, these reports are frequently difficult for laymen to interpret.

Finding 5: In addition to protecting unique recreational and scenic resources, the County's Coastal Development Overlay Zone aids in preventing landslides due to cliff erosion. This overlay zone requires all structures to be constructed at least 25 feet from the top of a bluff. However, concern has been expressed that variances to this setback requirement will eventually contribute to bluff instability.

Finding 6: The Zoning Ordinance could play an important part in regulating the type and intensity of development in hazard areas provided an adequate base of geologic data is developed. The Seismic Safety Element has recognized the need for an expanded data base in geology and related disciplines to improve public safety considerations in County ordinances. Improved information identifying the precise location and nature of these geologic hazard areas will enable The Zoning Ordinance and other development regulations to be adjusted to enhance public safety.

Finding 7: The County is currently preparing hillside protection policies. Although the primary purpose of these policies will be to protect hills rather than people, they could have an indirect positive impact on public safety through development design criteria, density considerations, or other growth control measures (35).

Finding 8: Although subdivision maps may be denied if a project site is not physically suitable for either the type or density of a proposed development, no uniform criteria have been established to make these determinations (36).

Finding 9: Areas of potential land subsidence exist in the County, however, they are not presently considered major hazards.(37).

Policies and Action Programs

POLICY 1: The County will establish standards and criteria to reduce geologic hazards and enforce then by adopting new codes and ordinances or strengthening existing ones.

POLICY 2: The County will continue to pursue erosion and landslide control programs through such means as: strict enforcement of the grading ordinance, continued support of the floodplain zoning program, and by requiring soils and geologic reports in hazardous areas.

POLICY 3: The County will expand research in the field of geologic safety.

POLICY 4: The County will seek the cooperation and coordination of all jurisdictions and agencies involved in the mitigation of geologic hazards.

The implementation measures for the geologic hazards section of this Element are identified in the Seismic Safety Element and the Conservation Element.

The following Seismic Safety and Conservation Element Action Programs will accomplish the policies of the Public Safety Element:

SEISMIC SAFETY		CONSERVATION
1.3	2.1	12.1 Water Section
1.2	2.5	18.1 Water Section
1.5	3.1	9.1 Soil Section
1.8	4.1	10.1 Soil Section
1.9		

Source:Seismic Safety and Conservation Elements of the County General Plan

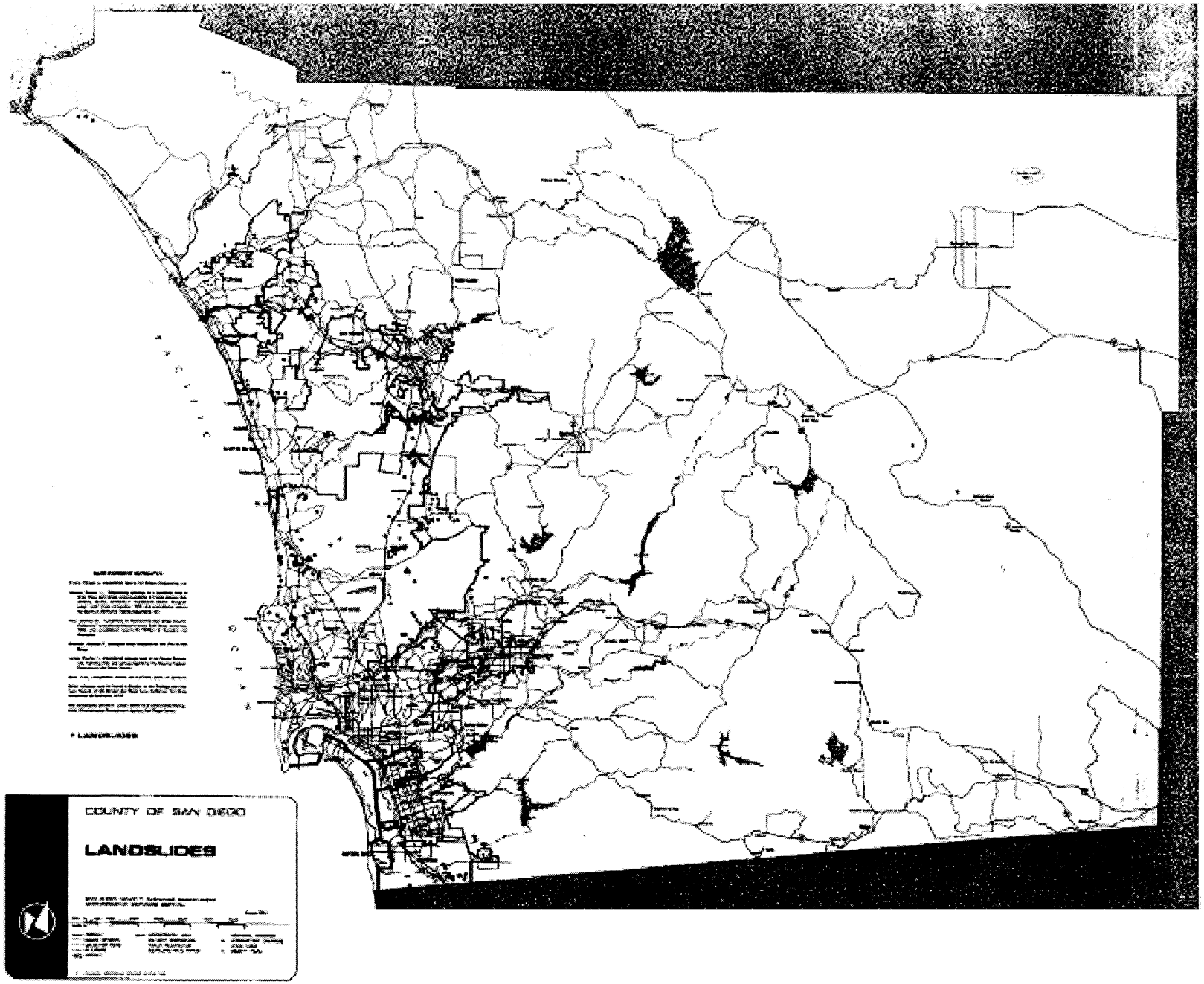

Illustration 2

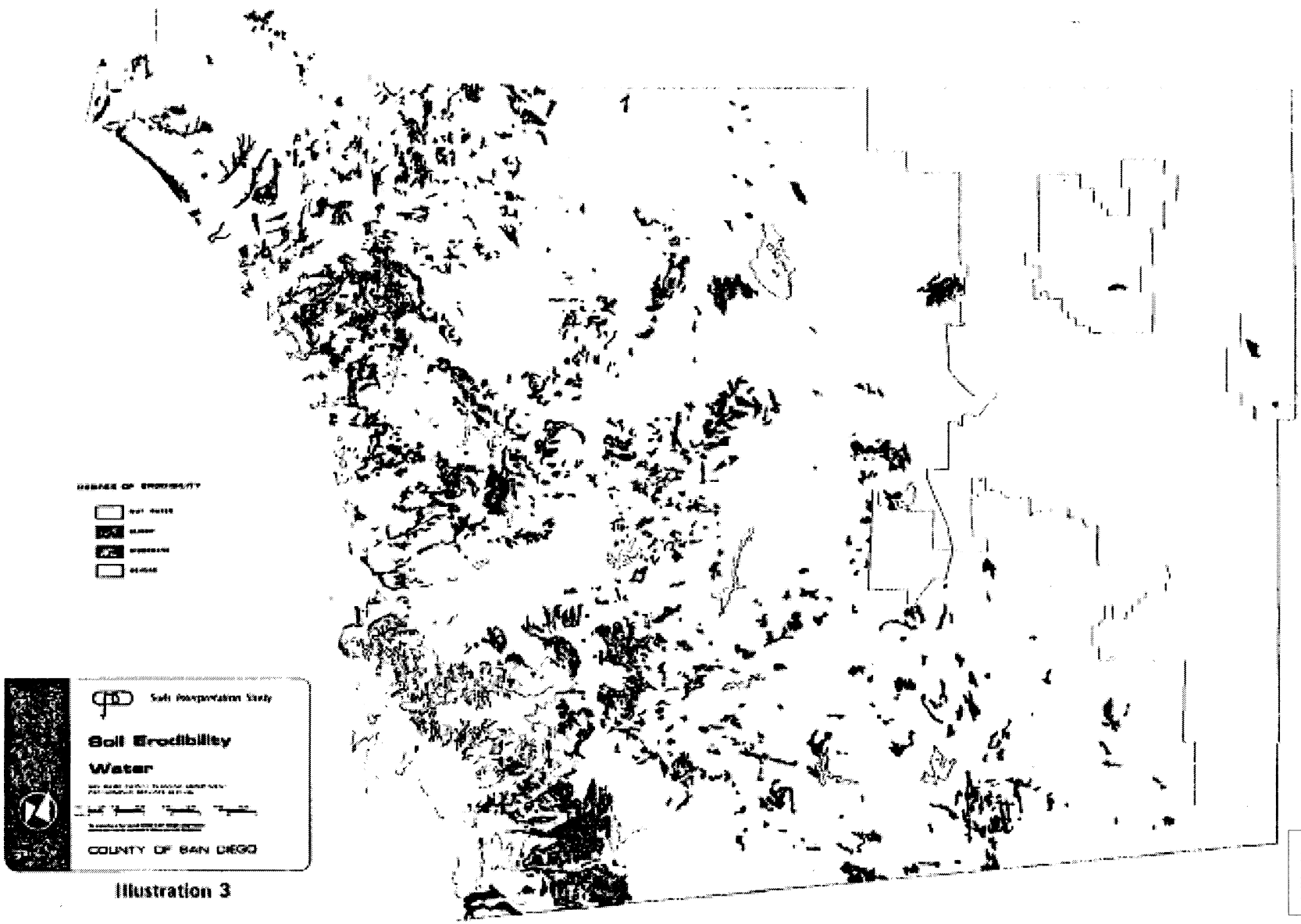

Illustration 3

Chapter 4

Crime Prevention

The incidence of crime has significantly increased over the past several years (38). A fear for personal safety has accompanied these rising crime rates. Measures to reestablish public safety are being increasingly researched and implemented by governmental and private agencies. A major effort to restore this security revolves around the concept of "defensible space." This concept seeks to encourage residents to assert a psychological and/or physical span of spatial control to reduce the opportunity for unlawful activity. The concept is applicable to community and site planning, as well as to building design. The focus of the Crime Prevention Chapter is on this "defensible space" concept.

Findings

Finding 1: Law enforcement agencies now recognize a positive relationship between a community's spatial design and the potential for crime.(39) Prevention of crime can be defined as the anticipation, recognition and assessment of a crime risk along with the action needed to reduce or eliminate that risk. Over the years, law enforcement agencies have recognized that the inadequacies of spatial relationships in the design of community development have led to a significant impact on a community's service requirements.

Finding 2: Crime prevention is an important consideration in the physical planning process. Frequently, conditions for public safety can be enhanced and property loss reduced by utilizing land use planning and site design techniques to deter criminal activity. Carefully planned development can serve to minimize the opportunity of unlawful activity and thus lower the actual occurrence of crime.(40) *See Appendix C* When both planning and law enforcement agencies contribute to the planning process, a higher degree of safety is achieved in the community's overall living environment.

Finding 3: The study of new crime prevention techniques is now being federally funded. In response to a rising national crime rate, the Safe Streets Act of 1968 provides funds for crime deterrence activities and the study of new crime prevention techniques. The Law Enforcement Assistance Administration is the agency responsible for funding these research activities throughout the country. One of the most promising areas of investigation is crime prevention through physical planning. The use of physical planning may be one of the least costly and most successful means of crime prevention techniques to date. The key is to establish design criteria that will affect community control by members of the community. Improving the observational capability of residents to visually survey their residential environment through design considerations is aimed at reducing the workload of formal law enforcement agencies and enhancing community orientation. This concept is frequently termed defensible space.(41)

Finding 4: Recent studies in crime prevention indicate both the real and perceived security of an area or building tend to produce lower crime rates (42). A great deal of criminal activity is "opportunistic" or unplanned crime. The offender requires advantageous circumstances (I.e., a dark alley, an enclosed stairwell, or person alone in an elevator). The removal of such opportunity by increasing visibility has been

found to reduce the incidence of criminal activity. Areas that have or seem to have a high degree of visibility by potential offenders tend to have a lower incidence of crime.

Finding 5: The design of streets, buildings and landscaping can influence the way people regard spatial use. Architectural alteration of entrances can change a space once considered public into a semi-private one which is shared by a limited number of people. In large apartment complexes with one or two entrances, people are able to enter the building without notice or challenge. Apartment buildings designed to provide a separate common entrance for only six to eight families, however, allow a higher level of surveillance by the occupants. Families soon become acquainted with their neighbors' normal day-to-day activities and are able to recognize their most frequent visitors. A new face is often met with inquiries as to the purpose of his or her business.

Streets are typically designed and considered as public space allowing free and ready access into any neighborhood by anyone. By siteing residential structures in relation to their lots and the street, a degree of neighborhood control or territoriality may be established. The designed use of symbolic or psychological barriers through landscaping can have an apparent differentiation to public vs. private space. Typical examples of these symbolic barriers are a small hedge, a long walkway, or a set of steps between the public sidewalk and the house. These design features tend to identify the end of the public space and the beginning of a more selective space use.

Landscaping features can also facilitate neighborhood control by providing observable "barriers" beyond which other residents of the area would take note and potentially challenge. Here landscaping can be used to define space use by visually delineating areas for their private scape use from public space use. An attractively landscaped front yard can be considered the object of the resident's pride of ownership. In turn, the pride can be transferred to other residents in the neighborhood. With neighbors reinforcing this aspect of private domain, they soon develop a sense of identity to and responsibility for others' front yards. This, of course, cannot guarantee their safety, but may substantially reduce the opportunity for unlawful activities. Landscaping treatment should be used in a manner which enhances an areas's or project's setting without obstructing the visibility of walkways or entrances from the street or other residences.

Finding 6: The design of physical space can augment community identity and control. Visibility alone is not enough; there must be a reason before a person will challenge inappropriate behavior. If a person feels he has a stake in a neighborhood or community, there is ample reason to questions the potentially unlawful behavior of others. The use of design in the physical planning process can encourage residents to assert a psychological identity over their immediate neighborhood and thus to deter crime by reducing the opportunity for unlawful activity. Strongly defined areas of influence, real and psychological barriers, and improved opportunities for surveillance can assist a community in exerting a meaningful level of crime prevention and control by its residents.(43)

Finding 7: The safety and security of buildings can be additionally enhanced through the design of improved anti-intrusion hardware (locks, bolts, latches, etc.) for all openings and entrances. Stronger, more secure locking devices or doorjamb construction can eliminate most illegal entries.(44) Many agencies are currently preparing to upgrade their building codes to include minimum security requirements. Presently, San Diego County has no applicable security device standards. A need for these security requirements has clearly been demonstrated within the County. The Sheriff's Office estimates a 17 percent increase in burglary in 1973 from the previous year.

Finding 8: Both the County and the City of San Diego are attempting to upgrade building security requirements. The City of San Diego has recently taken steps toward the adoption of a Building Security Ordinance. Representatives from the city of San Diego Police, Fire and Building Inspection Departments have jointly prepared such an ordinance which includes anti-intrusion and other security requirements. (45) Official consideration of the ordinance is currently pending action on related legislation at the state level. The County's Sheriff's Department is particularly interested in developing and implementing comparable building security requirements. An example of an existing building security ordinance can be found in Appendix D.

Policies and Action Programs

POLICY 1: Encourage and support continued research and the use of new design concepts and technological improvements for the prevention of crime.

Action Program 1.1: Direct the Law and Justice Agency in conjunction with the Environmental Development Agency to prepare a grant proposal for the submission to the San Diego Regional Criminal Justice Planning Board and the Law Enforcement Assistance Administration. The nature of this proposal will be to develop security standards and methods of measurements to be used in the review of proposed development.

POLICY 2: Encourage crime prevention through the planning process by establishing specific design criteria and standards to be used in the review of land use development.

Action Program 2.1: Authorize and encourage representatives of the Sheriff's Department to participate in any informal interdepartmental conferences to review specific land use development proposals considering the design criteria in Appendix C.

Action Program 2.2: Encourage the adoption of comparably uniform building security ordinances by all jurisdictions within the County.

Action Program 2.3: Direct that representatives of the Building Inspection, Planning and Sheriff's Departments and Office of Fire Coordinator work together to design and prepare a Building Security Ordinance.

Chapter 5

Emergency Services

The Emergency Services Chapter consists of two sections: Emergency Medical Services (EMS) and Other Emergency Services. The EMS section is concerned with the delivery of adequate emergency medical aid. This aid is intended for those individuals who are in need of immediate medical attention, due to injuries resulting from fires, geologic activities, or crime as well as due to accidents or illnesses. The section on Other Emergency Services relates to emergency telephone communications (911 System) and emergency services planning for major disasters. Included in Chapter 5 is a special section which contains policies and actions programs which relate to all chapters in the Element.

Findings -- Emergency Medical Services

Finding 1: Emergency medical services have yet to evolve into a community responsibility with overall management by local government. The community's need for police and fire services is well established and supported. However, the greatest threat to the average citizen is not the criminal, fire or hazardous geologic phenomena, but rather his inability to get adequate medical care before arrival at a hospital. During this critical time, the victim may lose his life or become permanently disabled.

Finding 2: No coordinated communications and dispatch system exists to provide citizens with ready access to emergency medical services. A major need exists for a central communications system with a single telephone number. The public is frequently confused when trying to gain access to emergency medical services due to the multitude of commercial as well as public agencies providing these services. Currently, there are 3 police agencies, 14 fire agencies, 9 private ambulance agencies, and a County ambulance district providing ambulance services in the County, each with its own telephone number.

Finding 3: In many instances, jurisdictional boundaries create artificial boundaries preventing the closest ambulances from one district to respond to an adjacent district. Jurisdictional boundaries are often not known or clearly understood by citizens. This results in confusion as to which agency should be called in a medical emergency as well as untimely delays which can lead to death or severe injury when the nearest unit cannot respond to the nearest call for assistance.

Finding 4: Ambulance services in the cities generally provide a satisfactory level of care; however, ambulance services in rural areas of the County are either minimal or nonexistent. This condition exists due to the lack of a countywide ambulance ordinance which standardizes the training and skills of ambulance personnel, the equipment on ambulance, and areas of response. In the rural areas of the County, the population is so sparse that it is impossible for the residents to financially support adequate emergency services. Ironically, most of the emergencies in these areas happen to residents of urban areas and tourists traveling through or visiting recreational areas. Cooperative agreements need to be established between urban and rural ambulance services to ensure the highest possible level of emergency care.

Finding 5: Minimum standards for ambulance attendants need to be established on a countywide basis. The quality of emergency medical care outside the hospital is dependent upon the training of the ambulance attendants. Since 1972, emergency medical technician training has been offered in several community colleges, but as of April, 1974, only 24 percent of all full-time ambulance attendants have been so trained.

Finding 6: A particularly serious need exists to begin training persons to the level of paramedic. A significant number of lives could be saved each year if paramedics are trained and units are placed in operations. The number of paramedic units needed, paramedic trainee selection, and paramedic training and certification programs are the County's responsibility. A paramedic training program will begin by February, 1975. Federal funds have been obtained for the program for one year. The program will be administered through the Emergency Medical Services Office of the County.

Finding 7: San Diego County lacks an organized and coordinated hospital transfer system. Frequently, patients encounter difficulties being transported to a hospital which will admit them. In addition, doctors, nurses, and ambulance attendants need to be brought together as a team through organized in-service training programs in all local hospital facilities.

Finding 8: There is a great need to inform the public about the availability of services, how to request aid, and what to do until professional help arrives. This aspect of the emergency services system needs to be coordinated with other health and public safety programs. A need exists for teaching first aid in public schools and for offering adult classes at convenient times and places to teach self-help and life saving procedures. In addition, the present program of giving community talks on emergency medical services to organizations and civic groups should be expanded.

Finding 9: The process of program evaluation is vital to the efficient administration of the emergency medical services system. The process of the program evaluation examines all components of the emergency medical services system. It is a management tool for determining the system's overall effectiveness and where to better invest tax monies. Adequate evaluation depends on sufficient data collected on all aspects of the emergency service system. Standardized form are a requisite to adequate collection of this data on dispatching emergency care in hospitals. All agencies do not currently use such forms in their emergency care operations. New and improved program plans can only be developed from information obtained through adequate evaluation studies.

Finding 10: State and Federal governments are taking an active role in providing some of the funds, expertise, and standards to assist counties in developing an integrated emergency medical program. In 1968, State law mandated that an Emergency Medical Care Committee (EMCC) be appointed by the Board of Supervisors to both advise the Board and report directly to the State Department of Health on all matters of emergency medical care. Recently, the State Department of Health reorganized its emergency medical services office and began to actively develop a Statewide Emergency Medical Services Plan. Adoption of this Plan is anticipated by 1975. The Plan is expected to give the County full responsibility to develop and implement all aspects of emergency medical care.

Finding 11: A critical factor in any emergency is the time lag between the occurrence of the incident and the dispatching of emergency units. The critical time lapse is usually caused by indecision, wrong numbers, or in looking up an emergency number. To minimize this delay, a single short number for reporting all emergencies is needed.

Finding 12: Assembly Bill 515 (1972) mandates that a statewide universal "911" emergency telephone number be implemented in California by December 31, 1982. The law requires planning and implementing the "911" systems. the State has developed technical and operational standards and must coordinate and approve the implementation of the "911" system statewide.

Findings -- Other Emergency Services

Finding 13: A "911" emergency telephone system plan has been approved in principle for the County of San Diego. In October, 1974, the Public Works Agency presented the plan for tentative approval. The plan calls for a "selective routing" system which would automatically route a "911" call from any telephone in the region to the 911 Communications Center to be received by the Sheriff's dispatcher. Prior to submission of the tentative plan in 1975 to the telephone company serving San Diego County, it will be necessary to obtain concurrence from all participating cities and special districts. The County anticipates to have the local "911" system operational by 1980. *See Appendix E*

Finding 14: The County actively participates in a program of disaster preparedness and relief for those extraordinary emergencies which involve coordinated emergency operations of both governmental and nongovernmental groups. The County is involved in the regional disaster organization (Unified San Diego County Emergency Services Organization) in several ways. The more significant are:

a. Unified San Diego Disaster Council. A member of the Board of Supervisors serves on the Council and acts as permanent Chairman. The County supplies 25 percent of the Council's funding. The San Diego County Office of Emergency Services is the staff to the Council.

b. Operational Area Coordinator. The County Chief Administrative Officer is the Operational Area Coordinator for both incorporated and unincorporated areas in the County. The Chief Administrative Officer is also the director of disaster operations for the unincorporated area of the County.

c. County Emergency Operations Center (EOC). The EOC activates when there is a possibility of a local or major emergency. The EOC is staffed by the County Office of Emergency Services.

d. County Office of Emergency Services (OES). The OES provides staff for field operation coordination during a major disaster and prepares plans for disaster preparedness.

Finding 15: The County of San Diego Emergency Plan was adopted by the Board of Supervisors in 1973 pursuant to the California Emergency Services Act. The Plan was prepared by the OES for the unified San Diego County Emergency Services Organization. The Plan is general and is designed to be used in the response to many types of disasters. It is presently difficult to prepare disaster response plans (termed contingency plans) for potential major disasters in specific geographical areas covered as adequate information is not readily available. Contingency plans are not required by State Law but are

encouraged by the State EOS. It is the intention of the State OES that contingency plans consider evacuation (strategic relocation) of residents whenever applicable. A disaster contingency plan is now in preparation for the San Onofre Atomic Power Plant by the County OES.

Finding 16: Inundation maps showing areas of potential flooding which would result from dam failures are being reviewed by the State Office of Emergency Services. The maps are being prepared pursuant to Section 8589.5 of the Government Code and will become a mandatory consideration in the Safety Element when they have been approved by the State Office of Emergency Services. The maps should be completed by 1976. The purpose of inundation mapping is to provide a basis for ejaculation planning. *See Appendix F*

Policies and Action Programs – Emergency Medical Services

POLICY 1: The County will establish and support a comprehensive emergency medical services systems which coordinates regional resources to meet or exceed the criteria and standards for such a system. *See Appendix B*

Action Program 1.1: Authorize staff and funding necessary to maintain and Office of Emergency Medical Services within the Health Care Agency to plan, direct, implement and evaluate a comprehensive emergency medical services program.

Action Program 1.2: Advocate and support State legislation to regionalize emergency medical services, establish uniform reporting standards and reciprocity agreements for emergency medical personnel transfers within the State.

Action Program 1.3: Authorize staff and funding necessary for the Office of Emergency Medical Services to work with all concerned agencies in the establishment of:

a. A coordinated regional resource utilization plan;

b. A Countywide ambulance service ordinance which standardizes the requirements for general operations, personnel, training, equipment, and area of response;

c. A paramedic program; and

d. An ongoing Poison Information center, at the earliest possible date.

POLICY 2: The County shall encourage and support continued research and use of new technology to achieve an optimal level of emergency medical services.

Action Program 2.1: Advocate and support Federal and State legislation for the continued development of emergency medical service in the areas of research, training, systems development and indigent care.

POLICY 3: The County will encourage and support measures which are necessary for the upgrading of ambulance services and training of emergency medical personnel.

Action Program 3.1: Direct the Office of Emergency Medical Services to coordinate with all educational institutions which offer Emergency Medical technician training to achieve uniform training standards for the delivery of emergency medical services.

POLICY 4: The County will encourage and support the establishment and continual improvement of a Countywide emergency telephone communications system (911) in order that there be a minimal time lag between the occurrence of an incident and the dispatching of emergency units.

POLICY 5: The County will maintain and improve the 1973 County of San Diego Emergency Plan.

Action Program 5.1: Direct the Office of Emergency Services (OES) to prepare emergency contingency plans as the appropriate information becomes available. These plans will refine the overall County Emergency Plan to include specific emergency service requirements and activities for potential disasters such as flooding due to dam failure or tsunamis. Where applicable, contingency plans should consider evacuation in terms of the control (i.e., specific routes and means of transport) and care of people.

Policies and Action Programs -- Interrelated Public Services

POLICY 6: The County will continue to support and expand public information programs related to the public hazards presented in this Element. Where it has no authority to direct, the County will encourage and support public service announcements, particularly via television during prime viewing time.

Action Program 6.1: Advocate and support revisions in Federal Communications Commission regulations which would require commercial stations to air a specified number of public service broadcasts during prime time hours.

Action Program 6.2: Direct the Office of Public Information and Communications to work with local television stations in preparing and scheduling brief public service announcements.

Action Program 6.3: Authorize Planning Department staff to prepare and present an annual progress report on the Element's policy and program recommendations. The report will address the degree of implementation which has been achieved and proposed the general scope of needed amendments which are to be accomplished during the next year.

Footnotes

Chapter 1 - Introduction

1. Deering's Government Code, 1972 Supplement, p. 72.
2. State of California, General Plan Guidelines, p. IV-37.

Chapter 2 - Fire Hazards

3. R. Dziezyk, An Analysis of Fire Protection Capabilities and Problems in San Diego County, p. 12.
4. National Commission on Fire Prevention and Control, America Burning, p. 1.
5. Stated by C.E. Grover, Insurance Services Officer, in an interview on October 15, 1974 at San Diego.
6. Ibid.
7. National Commission on Fire Prevention and Control, loc. cit.
8. Stated by Stan Mourning, Battalion Chief, in an interview on September 17, 1974 at Spring Valley Fire Department.
9. International City Managers Association (ICMA), Municipal Fire Administration.
10. Los Angeles County Planning Department, Preliminary Safety Element, p. 23.
11. Ibid and S. Mourning op. cit.
12. Los Angeles County Planning Department, op. cit., p. 31.
13. ICMA, op. cit.
14. San Diego County Fire Prevention Committee, Countywide Fire Study, pp. 14-16.
15. Ibid., p. 5.
16. Stated by Myron Lee, U.S. Forest Service Ranger, in an interview on October 7, 1974 at San Diego.
17. California Division of Forestry, A Fire Hazard Severity Classification System for California's Wildlands, p. 15-17.
18. Stated by member of Fire Prevention and Control Advisory Committee on September 10, 1974 at regular Committee meeting at County Operations Center.
19. National Commission on Fire Prevention and Control, op. cit., p. 95.
20. West's Annotated California Codes, Public Resources Code No. 4291.
21. Stated by John Morrow of California Division of Forestry and Myron Lee of the U.S. Forest Service in November, 1974 at San Diego USFS Office.
22. Stated by a California Division of Forestry Ranger in October, 1973 at a CDF sponsored tour of 1970 Boulder Oaks Fire.

23. Written comments from Charles Cooper of San Diego Fire Prevention and Control Advisory Committee (FPCAC) dated July 31, 1974.

24. Written comments from Lee Griner of FPCAC dated October 11, 1974.

25. Cooper, op. cit.

26. Conservation Element San Diego County General Plan, p. 60.

27. Cooper, op. cit.

28. Stated by Karl Baker, Assistant Agriculture Commissioner of the County of San Diego in a telephone conversation on October 21, 1974.

29. Stated in a letter from Thomas Owens, former President of the San Diego County Fire Chiefs' Association, to Sheriff John Duffy on November 6, 1973.

Chapter 3 - Geologic Hazards

30. County of San Diego, Soils Interpretation Study, Soil Erodibility Map.

31. County of San Diego, Ordinance 4260, adopted February 20, 1974.

32. Conservation Element San Diego County General Plan, p. 105.

33. H.W.L., "Geology Book Explains Slide and Fault Areas" in San Diego Daily Transcript, (September 21, 1973), p. IB

34. Conservation Element, op. cit., p. 197.

35. Stated by Paul Koenig, County of San Diego Planning Department Division Chief, in a telephone conversation in November, 1974.

36. State of California, Assembly Bill No. 1301 as approved November 8, 1971.

37. Stated by Alan Mayo, Environmental Management Specialist, in an interview in September, 1974 at the County Office of Environmental Management.

Chapter 4 - Crime Prevention

38. J. Blanchard, "Proposal for a Model Residential Building Security Code" in Criminal Justice Monograph: Deterrence of Crime in and Around Residences, p. 1.

39. John Fabbri, "Crime Prevention Through Physical Planning" in Crime Prevention Review, p. 2.

40. Fabbri, loc. cit.

41. State of California, General Plan Guidelines, p. IV-38.

42. Oscar Newman, Architectural Design for Crime Prevention, p. 75.

43. Oscar Newman, Defensible Space, pp. 51-55.

44. J. Blanchard, "Proposal for a Model Residential Building Security Code" in Criminal Justice Monograph: Deterrence of Crime In and Around Residences, pp. 1-25.

45. City of San Diego, "An Ordinance Adding Sections 91.0701 through 91.0716 to Chapter IX, Article 1 of the San Diego Municipal Code Relating to Security of Buildings" (proposed).

Chapter 5 - Emergency Services

46. State of California, 911 System Standards and Planning Guidelines Manual, pp. 9-27.

47. County of San Diego, Tentative 911 Emergency Telephone System Plan, pp. 1-6.

48. San Diego Comprehensive Planning Organization, Model Seismic Safety Element, p. 42-49.

49. County of San Diego, Emergency Plan, December, 1973.

50. Stated by State Office of Emergency Services in a telephone conversation in October, 1974.

Bibliography

Chapter 1 - Introduction

California Council on Intergovernmental Relations, General Plan Guidelines, State of California, Sacramento, September 20, 1973.

Duncan & Jones, Comprehensive Planning Organization, San Diego Region, Model Seismic Safety Element, Final Report, Berkeley, February, 1974.

Chapter 2 - Fire Hazards

County of Los Angeles, Safety Element of the General Plan (Preliminary, Los Angeles County Planning Department, 1974.

County of Sacramento, Seismic Safety and General Safety Elements of the General Plan (Draft), Sacramento County Planning Department, June, 1974.

County Supervisors' Association of California, Fire Safety Guides for California Watershed, Sacramento, 1965.

Division of Forestry, A Fire Hazard Severity Classification System for California Wildlands, Sacramento, State Resources Agency, April, 1973.

Emmons, Howard W., "Fire and Fire Protection," Scientific American, Vol. 231 (July, 1974), pp. 21-27.

National Academy of Sciences, A Study of Fire Problems, Publication 949, Washington, D.C., National Research Council, 1961.

San Diego Fire Protection Study Committee, Countywide Fire Study, San Diego, Special Public Services Agency, 1973.

San Diego Ranger Unit, Annual Report, San Diego, California Division of Forestry, 1970.

Watershed Resources Advisory Commission, Fuel Reduction and Management in San Diego County 1967-1973, San Diego County Department of Agriculture, 1973.

Watershed Resources Advisory Commission, Natural Resources; Watershed Resources, San Diego County Department of Agriculture, June, 1971.

Chapter 3 - Geologic Hazards

Cities of El Cerrito, Richmond and San Pablo, The Seismic Safety Study for the General Plan, San Diego County Planning Department, 1974.

Division of Mines and Geology, Urban Geology - Master Plan for California, Bulletin 198, Sacramento, State of California, 1973.

Flawn, Peter T., Environmental Geology, Conservation, Land-Use Planning and Resource Management, New York, Harper and Row, 1970.

San Diego Association of Geologists, Studies on the Geology and Geologic Hazards of the Greater San Diego Area, California, San Diego, 1973.

Zaruba, Quido and Vojtech Mencl, Landslides and Their Control, New York, Elsevier Company, 1969.

Zumberg, James H., Elements of Geology, New York, John Wiley and Sons, Inc., 1966.

Chapter 4 - Crime Prevention

Angel, Shlomo, Discouraging Crime Through City Planning, Berkeley University of California, 1968.

Blanchard, Janelle, "Proposal for a Model Residential Building Security Code" in Deterrence of Crime In and Around Residences, U.S. Department of Justice, Washington, D.C., 1973.

Fabbri, John, "Crime Prevention Through Physical Planning," in Crime Prevention Review, Sacramento, State Printing Office, April, 1974.

Harries, Keith, The Geography of Crime and Justice, New York, McGraw-Hill Book Company, 1974.

Jeffery, Clarence, Crime Control Through Urban Planning and Design, 1971.

Newman, Oscar, Architectural Design for Crime Prevention, for the National Institute of Law Enforcement and Criminal Justice, U.S. Department of Justice, Washington, D.C., U.S. Government Printing Office, 1971.

Newman, Oscar, Crime Prevention Through Urban Design -- Defensible Space, New York, The Macmillan Company, 1972.

Salpma, Ovadia, "Strategies for Defense," Progressive Architecture, (April, 1974), pp. 72-75.

Southern California Association of Governments, "Crime Prevention Through Physical Planning," Handbook of Crime Prevention, Los Angeles, September, 1971.

Chapter 5 - Emergency Services

California Water Quality Control Board, Comprehensive Water Control Plan for the San Diego Basin, Sacramento, State Printing Office, April, 1974.

Communications Division, 911 System Standards and Planning Guidelines Manual, Sacramento, State of California, March, 1974.

Communications Division, Tentative 911 Emergency Telephone System Plan for the County of San Diego, San Diego, Public Works Agency, October, 1974.

Comprehensive Planning Organization of the San Diego Region, Water Distribution and Sanitary Sewerage Systems Background and Policy Study, San Diego, February, 1972.

Comprehensive Planning Organization of the San Diego Region, Water, Sewerage and Flood Control Systems Plan and Implementation Program 1973-1974, San Diego, December, 1973.

Fox, James A., Report on the Administration of the San Dieguito Ambulance District for the Fiscal year Ending June 30, 1974, Rancho Santa Fe, 1974.

Montgomery, James, San Diego County Water Authority Filtered Water Distribution Study, San Diego, Montgomery Consulting Engineers, Inc., April, 1974.

Office of Emergency Preparedness, Geologic Hazards and Public Problems, Edited by R. Olson and M. Wallace, Santa Rosa, 1969.

Unified San Diego County Emergency Services Organization, County of San Diego Emergency Plan, San Diego, December, 1973.

Appendix A

COUNTYWIDE FIRE STUDY

(As reported by the Fire Protection Study Committee to the
Board of Supervisors on March 21, 1973.)

Rationale for Recommendations

Both the California State University, San Diego State Study Team and the Technical Advisory Group recommended consolidation of fire protection agencies. According to their respective reports to this committee, the ultimate answer to the County's fire protection problems may lie in total consolidation sometime in the future; of course with the qualification that this new consolidated agency be properly managed.

The member of the Fire Protection Study Committee concur in this observation. However, as was pointed out by both groups, no legal vehicle currently exists to accomplish this end. That is, it is unlikely that these agency boards will immediately voluntarily relinquish all of their respective authority. The County does not have the authority to mandate this action.

Nevertheless, the potential of savings and increased efficiency strongly suggests that local fire protection agencies voluntarily seek closer cooperation and ultimately consolidation on a subregional or zonal basis. Discussions along these lines are already in progress in several areas including the Heartland Group (El Cajon, Lakeside, La Mesa, Lemon Grove, Santee and Spring Valley), the communities of Vista, Carlsbad, and Oceanside, Alpine, Crest and Harbison Canyon; Chula Vista, National City, Lower Sweetwater and Bonita-Sunnyside. These above agencies, among others, appear to form natural compatible groupings which should be encouraged to develop mutual efforts such as mutual dispatching, training, purchasing, master planning of station locations and elimination of political boundaries for response to fires and other emergencies, that may ultimately lead to consolidation.

This committee's recommendations are designed to meet dual objectives. First, to provide an interim improvement in the delivery of fire protection services through functional cooperation facilitated by leadership by your Board; second, to encourage gradual political consolidation that may ultimately lead to a single unified countywide fire protection system.

Specific Recommendations

1. That local agencies increase efforts to achieve functional and political consolidations at the subregional level as discussed above.
2. That LAFCO not approve the formation of any new fire districts nor activate the latent fire protection powers of agencies that are not currently providing fire protection.
3. That your Board establish an Office of County Fire Service Coordinator appropriately staffed to act in cooperation with local agencies and advisory committee the accomplish the following objectives:
    a. Develop and recommend for adoption for your Board minimum standards of suppression services for the area of the County currently without district or city protection;

b. Develop and recommend to your Board a very high standard of presuppression services including the adoption and enforcement of a Uniform Fire Code in areas currently under your authority;

c. Develop for adoption by your Board an appropriate, effective ordinance that will limit the standard of roofing materials used in high fire hazard areas of this County to meet NFPA standards and UL Standards of Class C or better;

d. Develop and submit to your Board for approval a statement of policy defining the role and authority of the State Division of Forestry in providing fire protection services to the unincorporated area;

e. Develop common goals and objectives for the administration of fire related programs that are performed by the various departments and agencies within County Government;

f. Support the current efforts and assist in developing and establishing cooperative programs among local districts and cities that may lead to functional or political consolidations (such as the proposed mutual training and communications facilities currently under study by the Heartland Group);

g. Assist in developing a countywide system that will ensure fire services are provided by the nearest appropriate apparatus;

h. Assist county fire agencies in developing and maintaining a countywide master plan for location of fire stations, equipment and manpower;

i. Require all special use permit requests for the construction of fire stations be in conformance with a countywide master plan as discussed in (h) above;

j. Provide county computer services for appropriate programs that may be useful to a large number of fire protection agencies;

k. Establish priorities for approval by your Board for the allocation of such funds as may be available for fire protection through federal revenue sharing, or other resources;

l. Recognize fuel management as an integral part of fire protection in the back county and direct the Fire Services Coordinator to coordinate and implement the development of a countywide fuel management plan; and

m. Work with local fire districts and cities to identify alternate methods of financing fire protection services.

4. Create a new 7 to 9 number fire Protection Advisory Committee by combining the Watershed Advisory Commission and the County of San Diego Fire Protection Study Committee to more accurately reflect the integrated nature of the watershed and structural fire problem in this County.

Appendix B

CRITERIA AND STANDARDS

Comprehensive Emergency Medical Services System

Planning for emergency medical services on an area-wide basis is important, as it ties together all emergency medical services in the area into a single delivery system. Nevertheless, area-wide plans must take into account the development of smaller scale subsystem areas which comprise the day-to-day operations and interactions of emergency medical services delivery. These subsystems function as emergency medical service areas which include patterns of referral and physician staff assignments, the ambulance organization service districts, hospital location, and their capability.

Criteria

A comprehensive emergency medical services system insures each individual that in the event of a medical emergency a series of events will go into operation that will effectively treat the emergency to prevent suffering, disability and death. These events include:

The citizen's knowledge that he has an emergency;

One telephone number to call for help;

The immediate dispatch (by the receiver of the call for help) of the nearest appropriate personnel, equipment and vehicle to the victim in order to treat his emergency at the scene and enroute to definitive hospital emergency care; and

The transportation of the victim to the emergency facility best capable of handling that emergency.

Standards

Local emergency medical services, as a minimum, must consist of an organized pattern of readiness and response services based on private as well as public agreements and operational procedures which insure the following:

24-hour use of only EMT-1 or -II trained personnel in facilities, transport services, and communication centers;

Appropriate training and continuing education programs to provide similar training for emergency medical services personnel and other public safety personnel;

A central emergency communications system to handle requests for emergency medical assistance which provides for telephone screening, use of the areawide common emergency telephone number (e.g., 911), and direct communications with neighboring systems;

Contractual or public provision of certified emergency medical transport services to provide for 24-hour zoned deployment of a sufficient number of appropriate vehicles;

Effective coordination and use of all public safety agencies' resources;

Planned alignment of emergency medical facilities to insure 24-hour availability of care through linkages to specialized critical care units and to other sources of follow-up care;

Coordinated networks for professional consultation and supervision of emergency assistance and treatment of the scene, enroute, and within emergency medical facilities;

Policies and procedures insuring that necessary emergency medical services will be rendered to all patients without prior inquiry as to the ability to pay;

Standardized record keeping and record transfer of all services for evaluation of adequacy of system operation;

Programs of public information and education to advise visitors (as well as residents) of the means of obtaining emergency medical services and to provide for the dissemination of general information and specific training programs on basic life support methods;

Access to sources of specialized information and services such as identification and control of toxic substances, emergency medical clinical services and public health services;

Methods of assuring capability of providing emergency medical services during mass casualties, natural disaster, and other widespread emergencies;

Periodic comprehensive evaluation of all emergency medical services rendered, including system operations, plan maintenance and updating; and

Participation in policy making by key interest groups concerned with emergency medical services, including those with no professional training or major financial interest in health care.

Appendix G

CRITERIA FOR DETERMINING ACCEPTABLE RISK*

The following criteria must be considered in determining the acceptable level of risk for the hazards specified in the Public Safety Element:

1. Voluntary vs. Involuntary Risk - Building and other land uses normally requiring occupancy or use on an involuntary basis should have a different level of risk than those for voluntary use. Many public and semi-public buildings and land use activities involve involuntary usage (i.e., hospitals, nursing and convalescent homes, mental institutions, playground, schools, etc). The level of acceptable risks for these involuntary occupancies should be very low.

   In contrast, the location of private structures in known high hazard areas should have a higher level of acceptable risk because their occupancy is voluntary. Although the risk level can be somewhat higher, the level should be carefully considered due to public agency response costs resulting from emergencies occurring in high hazard areas.

2. High Occupancy vs. Low Occupancy Risk - Buildings of high occupancy rates should have a different level of risk than buildings associated with low occupancy rates. Generally, a high occupancy building (i.e., large office building, auditorium, theater, church, large motel, large shipping center, etc.) exposes more people to a given hazard than a low occupancy building (i.e., warehouse, single-family dwelling, etc.). Therefore, high occupancy buildings and land uses should be required to have a lower risk exposure than those of low occupancy.

3. Cost of Reducing Risk - In general, a reasonable level of acceptable risk should be determined based on the cost of its achievement. Minimizing risk frequently results in higher costs. Therefore, determining the level of risk becomes a matter of balancing the costs involved with the lowest risk affordable. The level of acceptable risk represents the point at which the public is no longer willing to pay for further reduction of the risk.

4. Evaluating Existing Risks - The determination of acceptable risk is not only applicable to future planning decisions, but also to the evaluation of risks associated with existing buildings and land uses. High risks may be lowered to a level of acceptability by means of physical alteration. For instance, a structural hazard abatement program which could remodel fire hazardous buildings, relocate and/or demolish existing structures, or change use of structure, (e.g., from high to low occupancy or involuntary to voluntary occupancy.)

*Sources: CPO's Guidelines for the Preparation of the Seismic Safety Element and the Tri-Cities' (El Cerrito, Richmond, and San Pablo) Seismic Safety Element.

Appendix H

GLOSSARY

A. B. 515 -- The California Assembly Bill requiring the implementation of the 911 emergency telephone system throughout the State by December 31, 1982.

CHAPARRAL -- A plant community characterized by evergreen shrubs with relatively low water requirements, with peak growth and reproduction occurring during the winter months, and with an aestivation (dormant) period during the dry summer season. The specific plants within this community vary with geographical region. In Southern California, it includes a group of shrubs dominated by Chamise, Toyon, Scrub Oak, and species of Buckthorn, California Lilac, and Manzanita.

DEFENSIBLE SPACE -- Concept of urban space designed to inhibit crime by utilizing the proprietary concerns of residents. Key ingredients in designing defensible space include: improving the natural capability of residents to visually survey the public areas of their residential environment; enhancing spheres of territorial influence within which residents can easily adopt proprietary attitude; and enhancing safety through the strategic geographic location of intensively used community facilities.

EMERGENCY MEDICAL SERVICES -- Those combinations of services rendered in response to the perceived individual need for immediate medical care in order to prevent unnecessary suffering, disability, or death.

EMERGENCY MEDICAL SERVICES SYSTEM -- A system comprised of the personnel, facilities and equipment and the necessary administrative and coordinative arrangements employed to effectively meet the needs in a given geographic area for emergency medical services.

FIREBREAKS -- Strips of forest or brushland cleared of all vegetation to help prevent the spread of fire. These breaks generally vary in width according to terrain and other factors.

FIRE HAZARD -- Any thing or act which may increase the potential of fire to a greater degree than that customarily recognized as normal by official agencies responsible for fire prevention or suppression; or which may obstruct, delay, hinder or interfere with the operations of the fire agency or the egress of occupants in the event of fire.

FIRE HAZARDOUS AREAS -- Any land covered with grass, grain, brush or forest situated on slopes or isolated in such a manner that a fire would be difficult to suppress or would result in substantial fire or erosion damage.

FIRE PLAN -- A document which includes: examination of existing policies and programs; goals and priorities for future fire services designed to meet the changing needs of the community; assessment of methods and alternative technical strategies for allocating local resources to meet these changing future needs; and a data system for continual monitoring of cost-effectiveness of resource allocations.

FIRE PREVENTION -- The function of approving building plans; inspecting buildings, their contents, and their fire protection equipment; public education; and investigating the causes of fires to serve as a guide for future fire prevention priorities.

FIRE PROTECTION SERVICES -- Any official agency charged with the responsibility of protecting life and/or property through such operations which may be necessary to extinguish or control any fire, perform

any rescue operation, investigate suspected or reported fires, gas leaks, or other hazardous conditions or situations.

FUELBREAKS -- A modification of firebreaks consisting of strips of land in which only plants of low flammability are allowed to grow.

FUEL MANAGEMENT -- Planned modification of vegetation to reduce the volume of fuel in brushland areas. As used in the Public Safety Element, refers to a mosaic or checkerboarding of vegetation which includes areas of light fuels along with areas of medium and dense brush.

PARAMEDIC -- Emergency medical personnel trained and certified in California to provide emergency treatment beyond ordinary first aid, such as emergency cardiac care, who perform under direct or indirect supervision (through radio communications) of a physician.

P.S.A.P. -- Public Safety Answering Point; the initially designated answering location of a 911 call (County Operations Center, 5555 Overland Avenue, San Diego).

PUBLIC RESOURCES CODE 411 -- "Counties, cities and counties, cities, and districts may adopt ordinances, rules, or regulations that are necessary to meet local conditions of weather, vegetation, or other fire hazards. Such ordinances, rules or regulations may be more restrictive than State statutes in order to meet local fire hazard conditions."

SAGE (COASTAL SAGE SCRUB) -- A plant community found near and with Chaparral, but dominated by a different set of species, and adapted to drier conditions. Commonly known as coast sage scrub.

SEISMIC -- Pertains to earthquakes or earth vibrations including those which are artificially induced.

SLOPE INSTABILITY -- The inability of the soil or rock material on a slope to resist moving downhill.

SUBSIDENCE -- A sinking or vertically downward movement of the earth's crust frequently accompanying fault movement and associated with the withdrawal of groundwater or petroleum.