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COMPREHENSIVE HEALTH PLANNING IN UTAH: AN ORGANIZATIONAL
ANALYSIS OF ENVIRONMENTAL HEALTH PLANNING

by

Marsha J. Lee

A thesis submitted in partial fulfillment
of the requirements for the degree


of

MASTER OF SCIENCE

in

Landscape Architecture and Environmental Planning

Approved:



UTAH STATE UNIVERSITY
Logan, Utah

1976

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I wish to express my appreciation to my major professor, Kevin Stowers, for his guidance and encouragement while directing this study, and to Professors Gerald Smith and Calvin Hiibner, for their ideas and assistance. Gratitude is also extended to the Utah Office of Comprehensive Health Planning who allowed me the use of their library.

Especially, I wish to express my appreciation to my parents for their support and understanding.

A very special thank you, Bo, for your love and your acceptance of my extreme emotions during this task.

Marsha J. Lee

PROLOGUE

Whoever wishes to investigate medicine properly should proceed thus: in the first place to consider the seasons of the year and what effects each of them produces. Then the winds, the hot and cold, especially such as are common to all countries, and then such as are peculiar to each locality. In the same manner, when one comes into a city to which he is a stranger, he should consider the situation, how it lies as to the winds and the rising of the sun: for its influence is not the same whether it lies as to the north or the south, to the rising or to the setting sun. One should consider most attentively the waters which the inhabitants use, whether they be marshy and soft, or hard and running from elevated and rocky situations, and then if saltish and unfit for cooking; and the ground whether it be naked and deficient in water, or wooded and well watered, and whether it lies in a hollow, confined situation, or is elevated and cold; and the mode in which the inhabitants live and what are their pursuits, whether they are fond of drinking and eating to excess, and given to indolence, or are fond of exercise and labor, and not given to excess in eating and drinking. . . . if one knows all these things, or at least the greater part of them, he cannot miss knowing when he comes into a strange city, either the diseases peculiar to the place, or the particular nature of common diseases, or commit mistakes, as is likely to be the case provided one had not previously considered these matters.

Hippocrates
on "Airs, Waters and Places"
twenty-five hundred years ago

This description by Hippocrates on the unity of our habitat identifies the relationship between man's health status and the environment. The man-environment system and its affect on health provides the theme of this study.

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ABSTRACT

Comprehensive Health Planning in Utah: An Organizational

Analysis of Environmental Health Planning

by

Marsha J. Lee, Master of Science

Utah State University, 1976

Major Professor: Kevin Stowers

Department: Landscape Architecture and Environmental Planning

The purpose of this study is to delineate the role of a Utah State comprehensive health planning agency in environmental health planning. The scope and nature of environmental health planning was researched thus defining the data base. Secondary information sources and informal interviews were used as sources for data about the existing situations in Utah which affect the organization of environmental health planning. The analysis of existing situations was presented in five sections: Goals for Environmental Health Planning; Intergovernmental Planning Coordination in Utah; Multicounty Health Districts in Utah; Utah State Agencies Having Responsibilities Related to Environmental Health; and Implications of Public Law 93-641 (the National Health Planning and Resources Development Act of 1974) and Utah Senate Bill No. 45 (the Health Resources Development Act of 1976). Analysis of information examined the organization and purpose of agencies and institutions

as specified by secondary information sources and interviews. Recommendations for the role of an Utah State comprehensive health planning agency in environmental health were based on these analyses.

(113 pages)

CHAPTER I

INTRODUCTION

Purpose of the Study

The comprehensive health planning process throughout the U.S. was created to achieve effective, coordinated and cooperative action at the federal, state and local levels in the development of a comprehensive health plan for each state. Environmental health is considered a component of this comprehensive health plan and deals with the man-environment interactions as they affect man's health status.

The purpose of the study was to delineate the future role of an Utah state comprehensive health planning agency in environmental health planning. An analysis of existing conditions in Utah which affect the organization of environmental health planning was presented. The following areas were analyzed with respect to their influence on environmental health planning:

1. Goal statements for environmental health planning in Utah;
2. Intergovernmental planning coordination in Utah;
3. The organization of multi-county health districts in Utah;
4. Utah state agencies which have responsibilities in areas of environmental health;

5. Implication of Public Law 93-641 (the National Health Planning and Resources Development Act of 1974), and Utah Senate Bill No. 45 (the Health Resources Development Act of 1976).

Outline of the Study

The basic information for the study was gathered from secondary information sources and provided the basis for identification of the areas of research. A discussion of environmental health planning revealed its place in the comprehensive health planning process, and showed that planning is intricate because of its very complex nature and the resulting wide variety of agencies concerned with environmental health issues.

Identification of the effects of the legal and governmental framework of public health in the United States on organized health planning in Utah provides parameters to base recommendations for the role of an Utah state comprehensive health planning agency in environmental health planning. A description of Utah's unique characteristics which affect environmental health planning includes that physiographic and demographic information influencing the policies and organization of environmental health planning in Utah.

Based on this discussion, Chapter V presents existing situations in Utah determining the organization of environmental health planning. Information was gathered primarily through secondary information sources. In addition, informal personal and telephone interviews were conducted to provide

clarification and additional information. The inventory is presented in five sections.

In the first section, Utah's goals for environmental health planning were identified through the following:

- 1) Federal and state legislative policy (Public Law 93-641, the National Health Planning and Resources Development Act of 1974; and Utah Senate Bill No. 45, the Health Resources Development Act of 1976),
- 2) The basic health goals for Utah as stated by the Utah Office of Comprehensive Health Planning,
- 3) The State of Utah Executive Order on Environmental Quality.

The second section describes intergovernmental planning coordination in Utah upon which to base recommendations for the organization of environmental health planning within the existing State planning structure.

The third section analyzes the organization of multi-county health districts in Utah to recommend future coordination of these institutions in environmental health issues.

The fourth section identifies and discusses the Utah State government agencies having environmental health responsibilities, which must be coordinated by an Utah state comprehensive health planning agency.

The fifth section discusses the implications of Public Law 93-641 and Utah Senate Bill No. 45 upon the role of an Utah state comprehensive health planning agency in environmental health.

Several conclusions are drawn from this research and organization and function recommendations are presented for Utah's state comprehensive health planning agency in environmental health.

CHAPTER II

THE SCOPE OF ENVIRONMENTAL HEALTH PLANNING

The purpose of this chapter is to show that environmental health planning has a legitimate place in the comprehensive health planning process, thus indicating the need for an Utah state comprehensive health planning agency to establish its role in environmental health planning. The discussion provides insights from which the data base is determined.

To accomplish this purpose, the scope of environmental health planning is delineated. The discussion includes:

- 1) The identification of the term environmental health as an element in the definition of health,
- 2) A description of the environment as a complex interrelated system affecting man's health and well-being,
- 3) A discussion of the complex nature of environmental health planning, reflective of the complexity of the environmental system.

Environmental Health as an Element in the

Definition of Health

For many years health was defined as a state of physical "wellness" or absence of disease or infirmity. Gradually, as man's basic human needs

of food, shelter and clothing were satisfied, he has been able to focus his attention on higher levels of health, comfort and well-being.

Among the broadest in scope and the most widely accepted is the World Health Organization (WHO) definition. Health is "a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity." (Subcommittee on Science, Research, and Development of the Committee on Science and Astronautics, U. S. House of Representatives, 1968, p. 17)

Various researchers have approached a definition of health by ranking health along a continuum. In Blum (1969, p. 20.03), Frank Stead offers a model of five levels of "basic goals with respect to environmental quality." In ascending order, they are: "simple survival; freedom from disease and poisoning; effective performance; sensory comfort; and enjoyment of living." As each of these levels of health have been reduced to a tolerable level within certain societies, attention has then been directed toward the next higher level.

Blum (1969) discussed similar levels of health and pointed out that these levels involve the interaction of man's physical needs, psychological needs, and social needs, which effect his state of health. Furthermore, man's needs are met through interactions with the physical, biological, and social components of the environment.

These concepts identify the relationships between man's health status and the quality of the environment. In addition, the American Public Health

Association has indicated a strong health-environment relationship in its definition of environmental health. It defines environmental health as:

. . . the interrelationship between the environment and the health and well-being of man. In this sense, the environment may be evaluated in terms of the physiological and psychological responses of man to the physical, chemical and biological attributes of his environment. (Committee on Environment, American Public Health Association, 1968, p. 358)

It should be pointed out that the social component of the environment has not been included in this definition.

Dr. Leroy includes the social component in his philosophy of public health in the statement:

The health status of an individual, a community or a nation is determined by the interplay and integration of two ecological universes: The internal environment of man himself; the external environment of the world that affects him. (Hafen, 1972, p. 16)

In considering the external environment he recognizes three major areas of health concern: the biological component, the physical component and the social component.

In Bosch (1961, p. 158) a definition proposed by the Ad Hoc Committee on Training in Environmental Health states that "environmental health deals with the impact of the physical, biological, and social environment of man and with the adjustments and controls of external factors to promote his health and well-being." This definition includes the social, physical and biological aspects of the environment, and involves interactions of man with the various elements of his environment, including their adjustments and controls.

The term environmental health thus defined identified the relationships between man's health status and the environment. Man's health is reflective of his ability to provide for his physical, mental, and social needs. In contrast, problems of environmental health often stem from man's inability to meet his needs as a result of his inability to adapt to a rapidly changing environment. Figure 1 shows the man-environment interactions as they affect health.

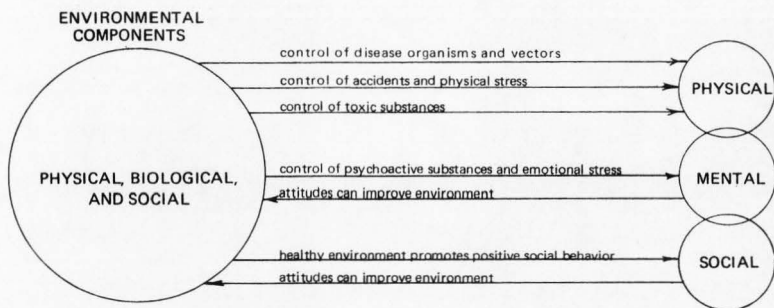


Figure 1. Man-environment interactions as they affect health.

The following section discusses the environment as a complex inter-related system. Dambach refers to this complexity of the environmental system in this manner:

the term embraces and gives common identity to such non-microbial or non-metabolic agents of ill-health which occur in the environment as toxic chemical agents in food, water, and air; tensions related to loving and working conditions, and accidents related to environmental hazards. The term . . . implies a comprehensive treatment of interrelated insults to health as contrasted to focusing attention on their component parts. (Dambach, 1964, p. 220)

The Environment as a Complex Interrelated System Affecting

Man's Health and Well-Being

The environment is a complex and interrelated system which affects the physical, social and psychological health of man. Understanding this concept is vital to environmental health planning. Some descriptions of the complex interrelationships of the environment are given in the following pages.

The environment as a complex interrelated system

Ecology is a science which studies the complex bond uniting living organisms with their environment. This bond encompasses relationships among organisms as well as between organisms and their physical surroundings. These complex interrelationships of ecosystems are discussed by Sargent (1972). He points out that, in the biotic realm, animals depend upon plants. Plants capture solar energy and store it in plant nutrients. To fulfill their nutrient requirements, certain animals eat plants. These herbivores are in turn eaten by carnivores. In the physical realm, we find that plants depend on solar radiation and atmospheric carbon dioxide and water to accomplish production of nutrients. At the same time all living organisms, plants and animals, depend upon atmospheric oxygen to provide for the release of energy from these same nutrients.

All living organisms modify their environment which leads to changes in the comprehensive environment, then the organisms, in turn, have the ability to adapt to this altered environment. As a result, an ecosystem is described as remaining in "dynamic equilibrium."

Sargent (1972) further states that with the appearance of *Homo sapiens* some 50,000 years ago, man became a new force to reckon with in the stability of the ecosystem. In the past, changes in man's pattern of living have generally been slow enabling the entire range of adaptive forces to operate: physiological and anatomical characteristics, as well as mental reactions and social organization. Currently, as the human population multiplies and technology and social change continue at an accelerated pace, the dynamic equilibrium of the ecosystem becomes more difficult to maintain. Also, the extensive scale and rapid tempo of man's manipulations of his ecosystem make it difficult for him to adapt to environmental changes.

The science of human ecology then studies the relationships between man and the innumerable factors of his environment. According to Hafen (1972), these environmental components include the physical, biological, and social-cultural forces which govern man's physical and mental processes and therefore mold his nature. Thus man exists concurrently in different environmental contexts. Figure 2 shows the components which make up the environment.

Bernard (1970) states that the physical, social, and biological components of the environment function as an integrated system, and

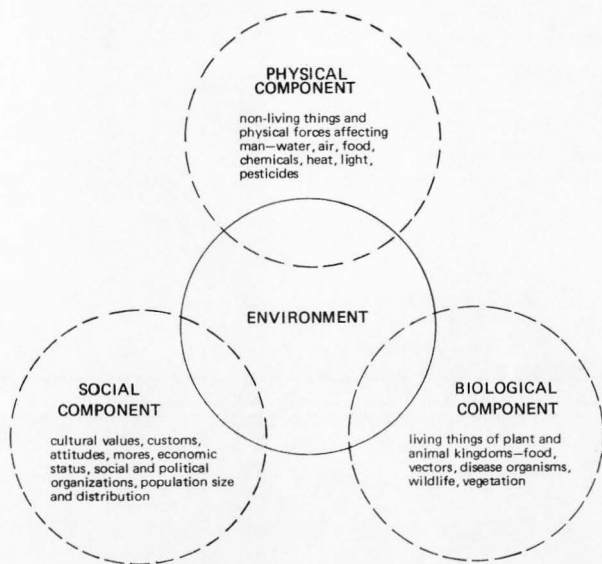


Figure 2. Components of the environment.

alteration of one component will affect the other parts, thus altering the whole. For example, it is impossible to understand and deal with air pollution without considering its relationship to climate, topography, electric power generation, public transportation, population densities, social values, economics, waste disposal, to name a few parts of an intricate interrelationship. Furthermore, a waste disposal problem cannot be considered solved if air and water resources are polluted in the process.

Since man and environment function as an integrated system, man's health is effected by the components of the environment. The following

section describes how man's health is affected through his relationships to the environment.

The role of adaptation and health

In order to fulfill his basic physical, social, and psychological needs, man must adapt to the environment. Dubos et al. (1965, p. 10) defines health as "the ability of the organism to function effectively within a given environment . . . Since the environment keeps changing, good health is a process of continuous adaption to the myriad of microbes, irritants, pressures, and problems which daily challenge man." When adaptability is successful, the human being can be considered healthy. Disease and disorder results from man's inability to adapt to his rapidly changing environment. This implies dealing with the indirect and long-term effects exercised by the environment, even if those factors have no apparent immediate influence.

The "positive health" advocated by WHO implies that a person should be able to express, as completely as possible, the potentialities of his genetic heritage (Hafen, 1972). This can be accomplished only if the environment is compatible with man's adaptive mechanisms. The word health in this sense describes not a state but a potentiality--the ability of an individual or social group to modify himself or itself continually not only in order to function better in the present, but also to prepare for the future. And since the environment is continually changing--the mandate for environmental health planning is endless.

The mandate for environmental health planning is also immediate and requires a coordinated effort to attain a healthy environment for man. Wilner et al. (1973) points out that in the past, man's adaptive mechanisms have enabled him to survive countless threats to his existence, including diseases. However, population growth and technology has introduced a range of substances and a magnitude of situations in excess of the past. Furthermore, the evolution of adaptive mechanisms is too slow to keep pace with the rapid technologic and social change of today. Thus, it does not seem probable that man will ever be able to adapt to the toxic effects of chemicals and other pollutants; hope for survival rests on efforts to control environmental pollution and contamination.

The preceding discussion pointed out that man and environment function as a complex integrated system. As a result, the nature of environmental health planning is also complex. The following section presents concepts which describe the nature of environmental health planning.

The Complex Nature of Environmental Health Planning, Reflective of the Complexity of the Environmental System

Environmental health planning involves a variety of persons, disciplines, and agencies due to the complexity of the man-environment system. The nature of environmental health planning is presented to show the need for interagency coordination in order to attain a high level of health, and

to identify the role of an Utah state comprehensive health planning agency in that coordination of activities.

Initially, environmental health planning is described as a complement of personal health planning. The discussion will show the need for a balanced approach to health planning, which includes the personal as well as the environmental health concerns.

Environmental health as a complement of personal health

Personal health refers to internal conditions of the organism (physical characteristics, heredity, mental processes); environmental health represents external forces which affect the functioning of human organisms.

The basic distinction between an environmental health problem and a personal health problem is the point of impact on people. Air pollution, for example, represents a health hazard to all society which results from man's impact on the natural systems. Chronic bronchitis is a personal health problem, a disease affecting individuals which is exacerbated by air pollution. When the disease is first detected--point of impact on the individual--the environmental health problem has now become a personal health problem as well. Environmental and personal health problems will continue to exist simultaneously, therefore a balanced approach to health planning is needed. This further shows the need for the environmental health component in the comprehensive health planning process and the need for coordination with personal health planning.

The balanced planning approach in health would integrate the preventive with the curative approaches. To date in Utah the emphasis in health planning has been with the curative or personal health services aspects, However, Meshenberg (1974) points out that the preventive activities (both environmental and medical) are ideally the areas which health planning should be focusing.

By its nature environmental health planning has a preventive focus. It has the purpose to keep people out of the health care system by influencing the shape and nature of the environment for the enhancement of man's health.

The preventive mode of environmental health has been accepted as a social goal and hence is a service provided mainly by governments. Environmental health issues are addressed by public health departments, environmental management agencies, and less directly through a broad range of public and private institutions. These agencies focus on management of natural and man-made environments--by air and water regulation, water fluoridation, adequate waste disposal, worker safety promotion, communicable disease prevention, and promotion of health through education (Meshenberg, 1974).

To further show the need for the coordination of efforts in environmental health planning, reference is made to Bernarde (1970) where he states that illness and disease are increasingly being studied not from the view of a single causative factor, but rather as the result of a multitude of causes. This chain (web) of causation implies that a series of events rather than a

single event is necessary for illness to occur. For example, today the attempt to control typhoid fever is not directed solely to a search for a bacterium. There is also consideration of factors such as raw milk, inadequate sewage disposal, unprotected water supply systems, poor personal hygiene, low economic levels, inadequate community financial resources, lack of industrialization and the historical development of the country. This scheme of multiple causation points out that problems could be controlled and/or prevented through a wide range of alternative solutions. This concept emphasizes the need for environmental health planning in the comprehensive health planning process, as well as a need for a coordinated effort in solving environmental health problems by providing for a healthy environment.

Environmental quality and environmental management as elements of environmental health planning

Environmental quality is a frequently used term but the delineation of the qualities of the environment that must be preserved to assure health, have not been adequately determined. This indicates tasks of environmental health planning.

As previously stated, the problems of environmental health often stem from rapid environmental changes and man's unsuccessful adaption to those changes. Sargent (1972) points out that these rapid environmental changes threaten the fitness of the ecosystem, and this threat arises principally from the deteriorating quality of the environment.

Environmental health planning can be viewed as the process of assisting man and environment in their mutual adjustment so that both are able to thrive and survive. Those persons and institutions addressing environmental quality, then, are indirectly addressing environmental health. Therefore, coordination of these areas is necessary.

Land use planning as an element of
environmental health planning

The efforts of land use planners should also be coordinated with those of the environmental health planner. The following discusses land use planning as an element of environmental health planning.

As men multiply and their technology comes to dominate the earth, the use of land becomes more important to the quality of their lives (Lynch, 1972). Man increasingly draws upon the natural resources of the landscape and allocates them to fulfill his needs. The Rocky Mountain Center on Environment (1971) quotes the Colorado Land Use Act which states that as the demands upon the landscape intensify, land use planning is needed:

- 1) To encourage planned and orderly land use development,
- 2) To provide for the needs of agriculture, forestry, industry, business, residential communities, and recreation in future growth,
- 3) To encourage uses of land and other natural resources which are reflective of their character and adaptability,
- 4) To conserve soil, water, and forest resources,

- 5) To protect the beauty of the landscape,
- 6) To promote the efficient and economical use of public resources for the health, welfare, and safety of the people of the state.

It is the task of land use planning to promote orderly growth and development. Orderly growth and development include goals for enhancing environmental quality which in turn affects the public health, safety and general welfare.

Approaching environmental health planning

The interrelationships between all the aspects of a healthy environment are complex. It follows that there must be an integrated team effort to arrive at an understanding of the cause-effect relationship between man and the world around him (Bernarde, 1970). Furthermore, environmental health problems are interdisciplinary, and perhaps involve all disciplines. Thus it is necessary to formulate institutions where problem-oriented professionals can be brought together to work effectively and efficiently in teaching, research and planning (Sargent, 1972). The coordination of these institutions is most important to further understand man-environment relationships and to plan for a habitat which is conducive to man's normal growth and development.

In conclusion, it is shown that environmental health planning has a legitimate place in the comprehensive health planning process, indicating the need for an Utah state comprehensive health planning agency to establish its

role in environmental health planning. The following chapter provides information on the past health planning process in Utah for the purpose of understanding the structure and functioning of such an agency. In addition, the role of the state government in environmental health planning is discussed in order to make recommendations on the role of an Utah state comprehensive health planning agency in environmental health planning.

CHAPTER III
THE EFFECTS OF THE LEGAL AND GOVERNMENTAL FRAMEWORK
OF PUBLIC HEALTH IN THE UNITED STATES ON
ENVIRONMENTAL HEALTH PLANNING IN UTAH

This chapter examines the role of the state government in environmental health planning. Understanding this state role is necessary to make recommendations for an Utah state comprehensive health planning agency in environmental health. The following presents:

- 1) Present general legal and government framework of public health in the U. S. which includes the intent of federal, state and local health legislation, and the health roles of federal, state and local government,
- 2) Organized health planning in Utah which illustrates Utah's current role in environmental health planning.

This provides parameters to guide the research and to base the recommendations.

The Legal and Governmental Framework of

Public Health in the United States

The intent of federal, state and local
health legislation

According to Wilner et al. (1973) the intent of federal health-related legislation enacted in recent years has been to establish integrated

federal-state-local programs which will strengthen the roles of local governments and increase citizen participation in policy formulation. Through the enactment of federal health laws and administrative actions, the partnership of federal, state and local agencies has been expanded. In the process, the federal tax dollar is returned to the states, regional bodies and local government with the intention that these governments can, through a coordinated effort, solve their own problems and in so doing, improve the health and welfare of the entire nation.

The state, through its constitution, has the authority and responsibility to protect the health of people within its geographic boundaries. General health policy, philosophy and intent are established by the state legislature and health laws are adopted to meet specific needs of the state and local residents. The health regulations are implemented by the executive arm, in the case of Utah, the Utah State Board of Health. These regulations are enforced and monitored by state or district health departments. In the event that a city or county fails, refuses, or is otherwise unable to cope with its health problems, the state may assist or assume control (Wilner et al., 1973).

Local governments acquire authority through the State enabling legislation, and on that basis adopt ordinances and supplementary rules and regulations. Federal funding to the states and state funding to local governments influences the quality and kinds of health programs and the administration of services by local agencies (Wilner et al., 1973).

The health roles of federal, state and local governments are guided by the legislative intent. These health roles influence the role of an Utah state comprehensive health agency in environmental health planning. The following paragraphs discuss these health roles.

The Public Health Service (PHS) is one of the key organizations of the Department of Health, Education and Welfare (HEW) charged with responsibilities for health protection and health improvement of the nation. HEW regional offices are maintained in each of 10 areas in the U.S.

Recently, HEW has strengthened the regional organization by shifting line authority to regional directors and agency heads, for coordination and general program consultation within their areas. The result is a move toward decentralization of departmental responsibility and functioning (Wilner et al., 1973).

The Environmental Protection Agency (EPA) is another federal agency with functions related to environmental health planning. Several research, monitoring, standard-setting, and enforcement activities in the environmental health field were transferred from the PHS and other agencies to the EPA. In the EPA there are separate offices for air and water quality programs as well as offices concerned with pesticides, radiation, and solid waste management. The intent is--through the EPA--to develop a broad policy for the protection of an endangered environment (Wilner et al., 1973).

Wilner et al. (1973) states that many other federal agencies have health functions secondary or supplementary to their main mission. These

include the Department of Labor, the Bureau of Mines, the Atomic Energy Commission, the Department of Agriculture, to name a few.

The federal and regional roles indicate the need for the coordination of these institutions with the state functions. While this thesis is directed towards state level organization in Utah, further research is indicated for coordination of federal-regional-state activities in environmental health.

Health roles of state and local government

The role of a state in health involves enforcement of programs and services at the local level. On the local level, a local health agency provides direct services to the public such as medical care, preventive measures and environmental control. Actual organization of specific services and definition of roles vary from one state to another (Wilner et al., 1973). A following chapter will describe the organization of local health departments in Utah.

Organization of Health Planning in Utah: An Illustration of

Utah's Current Role in Environmental Health Planning

Organized health planning began in the State of Utah with the implementation of Public Law 89-749, the Comprehensive Health Planning and Public Health Services Amendments of 1966. This legislation was the first real move to achieve effective, coordinated, and cooperative action at the federal, state, and community levels in the development of a comprehensive health plan for each state (Utah State Office of Comprehensive Health

Planning, 1975). The emphasis was on personal health facilities and services planning; however, PL 89-749 also included an open-ended mandate for the environmental health aspects. "Congress declares that fulfillment of our national purpose depends on promoting and assuring the highest level of health attainable for every person, in an environment which contributes positively to healthful individual and family living . . ." (Meshenberg, 1974, p. 3)

In 1968, the Governor of Utah designated a state agency for comprehensive health planning. The state agency is the Office of Comprehensive Health Planning (CHP), now operating as part of the Utah State Department of Social Services. It has an Advisory Council which is comprised of providers and consumers of health services.

According to Utah State Office of CHP (1975), the majority of area-wide health planning has been conducted by two CHP agencies. This narrative concentrates on the formal CHP experience in the State of Utah, since the network of CHP agencies is the first attempt at a coordinated attack on personal and environmental health problems.

In 1975, Congress passed PL 93-641, the National Health Planning and Resources Development Act. This act created a network of health systems agencies including a State health planning and development agency with responsibility for comprehensive health planning for the State (Utah State Office of CHP, 1975). Again the emphasis appears to be primarily on personal health services, facilities, and manpower; and secondarily, on environmental health.

Utah is currently in the process of reorganizing health planning at the state and local levels in response to PL 93-641. Chapter V discusses the implications of this legislation on the organization of environmental health planning in Utah. The recommendations presented by this thesis will be applicable to the State health planning and development agency of Utah yet to be designated.

Past planning approaches of Utah
State Office of Comprehensive
Health Planning

The Office of CHP describes the comprehensive health planning process as providing the institutional framework in which the community participates in identifying health problems and needs.

The planning must assure the inclusion of the type of community participation reflected in the characteristics of a pluralistic society and provide the incentives, information, policies, guidelines, and implementation techniques to produce a positive impact on community health (Utah State Office of CHP, 1975).

To gain a proper perspective of past planning approaches, one must know of the restraints placed upon the CHP. At least six barriers are recognized as having limited the program's effectiveness:

- 1) Limited resources in dollars and staff,
- 2) Insufficient mandate and power to implement plans for change,
- 3) High levels of rhetoric and generality in guidelines and products,

- 4) Unrealistic expectations, such as the call to plan "comprehensively" for services and facilities and manpower--and to do so with attention to matters of the environment as well,
- 5) Built-in overlap and duplication with Regional Medical Program (RMP) (which led to unproductive competition, program fragmentation, and disruptive rivalries),
- 6) Vague and variable standards of agency accountability and board composition, leading to internal conflicts and outside criticisms with attendant costs in public support (Public Regional Planning Body, Utah Health Systems Agency, 1976).

According to the Utah State Office of Comprehensive Health Planning (CHP) (1975) most of their activities and programs have been in the traditional health areas of facilities, manpower and services. However, a guide addressing environmental health as part of the state comprehensive plan for health, is proposed for the future. To date there have been two reports aimed at environmental health.

The Governor's Advisory Council for Comprehensive Health Planning (1970) extended 26 recommendations directed at a number of environmental problems in the State. A follow-up report by the Action Planning Committee (1972) indicated specific area recommendations and the degree to which they have been implemented. The primary implementation problem was inadequate funding by the Legislature. The report also pointed out that some agencies used this as an excuse for everything that they had not done and were

unwilling to admit that some program expansion was possible under present budgetary constraints by more effective utilization of available manpower. It was also noted that the agency responsible for implementation questioned the expertise of the Governor's Advisory Council in extending recommendations, therefore overlooking much of that report (Action Planning Committee, 1972).

The basic health goals for Utah reflect the agency's involvement in the traditional health areas of personal services. Environmental health goals have not been specifically defined but are implied. The following key phrase of the basic health goals show Utah's concern for every aspect of the environment which might affect health. These include:

- 1) Freedom from preventable disease both physical and emotional,
- 2) Achieve and maintain a healthful and esthetically pleasing environment,
- 3) Prevent accidents,
- 4) Make health education broadly available,
- 5) With concern for future as well as present generations (Utah State Office of Comprehensive Health Planning, 1975).

Since every environmental-human action does, to some degree, affect health, the Office of CHP has designated itself with unlimited environmental concerns. Therefore, these general goals need defining in order to delineate the role of the Utah state comprehensive health planning agency in environmental health planning.

In conclusion, the CHP planning process in Utah, as throughout the U.S., has been voluntary, with communities becoming involved only to the extent that health planning could be "marketed" to them. Also the community orientation required by PL 89-749 has been focusing on personal health facilities and services with little attention to environmental health planning.

A significant conclusion drawn from a review of Utah's past planning efforts is that the State designated comprehensive health planning agency has not formulated a policy statement regarding their role in the all-inclusive area of environmental health planning (Public Regional Planning Body, Utah Health Systems Agency, 1976).

CHAPTER IV
UTAH'S UNIQUE CHARACTERISTICS WHICH AFFECT
ENVIRONMENTAL HEALTH PLANNING

Physiographic and demographic characteristics of Utah influence the patterns of growth and development in the State. These patterns of growth and development affect the man-environment system thus influencing man's adaptive processes resulting in effects upon his health status. The purpose of this chapter is to identify growth patterns in Utah since these patterns of growth influence the policies and organization of environmental health planning.

Included in the discussion are:

- 1) A brief physiographic profile showing the effects of topography, water resources, energy resources, land ownership and land use upon major growth patterns in Utah,
- 2) A brief demographic profile, including population size and distribution illustrating these growth patterns.

Physiographic Profile

Topography

Utah's topography ranges from high, rugged mountains and plateaus in the eastern portion of the State to moderate and level desert lands and

valleys in the west. This contrasted topography affects the physical character and demographic distribution of the State. In addition to providing a variety of land features and allowing a broad scope of land uses, the topography encourages the concentration of the State's urban development within a narrow chain of valleys which comprise only a fraction of the total land area (Four Corners Regional Commission, 1969).

Water resources

Water has always been of vital concern in Utah. Early settlement evolved around the streams that flowed down from the nearby mountains, and even today population centers cluster in well-watered regions of the State. These regions occur primarily along the chain of mountains running north-south through the center of the State (Four Corners Regional Commission, 1969). The increasing concentration of population along the Wasatch Front, accompanied by an increase in per capita demand for water as a consequence of man's desire to achieve higher standards of living, results in an increased total demand for water.

Energy resources and related growth

Utah has abundant and varied mineral resources which constitute a vitally important part of the State's economy. Mineral fuels are located primarily in the southern and east-central portions of the State which are also Utah's rural lands. Today, due to an increased demand for energy

resources, these rural areas are experiencing rapid changes in population (Four Corners Regional Commission, 1969).

Utah has always had a population growth rate equal to or in excess of the national population growth rate. This growth rate becomes increasingly important when coupled with the development of energy resources (Grant Application for a Health Systems Agency in Utah, 1976). The development of these energy resources may create new communities and cause rapid growth in areas which previously experienced low growth rates, or even declining population rates. These areas of rapid growth need strong local representation in the State environmental health planning process. Stresses are being placed on the man-environment system and the role of the State Comprehensive Health Planning Agency involves assisting man and environment in their mutual adjustments for assuring public health and well-being.

Land ownership

Utah's boundary encompasses an area of about 52.8 million acres and contains approximately 1.6 million acres of water and 51.2 million acres of land area (Four Corners Regional Commission, 1969).

Either through ownership or administrative status, 76 percent of Utah's land area is controlled by institutions of government, consequently 24 percent of the land in Utah is privately held (Four Corners Regional Commission, 1969). This large percent of federal lands in Utah requires

coordination of federal and state agencies in land use planning and in environmental health planning for these areas.

Land use

One of the major land uses relates to agriculture. Approximately 87 percent of the state's land is used for some type of agricultural production. This is composed of approximately 13 million acres of private farm land and an additional 32 million acres of public land which is used for livestock grazing (Four Corners Regional Commission, 1969).

Land use, together with the other elements presented in the physiographic profile, influences the patterns of population growth and distribution in Utah as identified in the following.

Demographic Profile

Population size

Traditionally, Utah has a higher birthrate and a lower death rate than the national average. In 1973, Utah's birthrate was 24.2 per 1000 population compared with the national rate of 15 per 1000, while Utah's death rate was 6.6 per 1000 and the national rate was 9.4 per 1000. This has resulted in rates of natural increase well above those of the nation (Bureau of Economic and Business Research, College of Business, University of Utah, 1976).

From 1965 to 1975, Utah's population increased 16.9 percent, a greater gain than the national average of 9.2 percent. For that same period

Utah was above the 4.8 percent increase in population in the Western States (Bureau of Economic and Business Research, 1976).

In 1960, Utah's population was 890,627 and by 1975 it had reached 1,206,000. Population for the year 1990 is estimated to be 1,700,784 by the Office of the State Planning Coordinator (Bureau of Economic and Business Research, 1976). Figure 3 shows Utah's population projections to 1990.

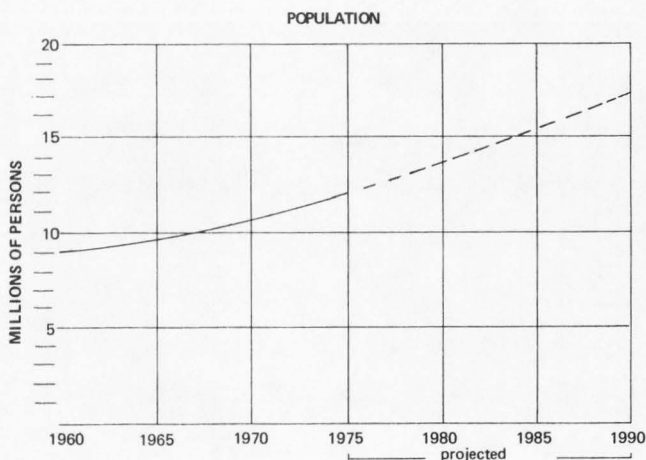


Figure 3. Utah's population projections to 1990.

Source: 1976 Statistical Abstracts of Utah, Bureau of Economic and Business Research, College of Business, University of Utah.

Although migration has historically made a very small contribution to population increase in Utah, energy development in rural areas of Utah should be noted since this could increase the role of migration in population increase (Four Corners Regional Commission, 1969).

Population distribution

The Bureau of Economic and Business Research, University of Utah (1976) points out that despite Utah's low population density (12.9 persons per square mile in 1970, as compared with the U.S. average of 50.3 its index of urbanization is higher than that for the nation as a whole. In 1970, about 80.4 percent of Utah's population lived in areas classified as urban, compared to 73.5 percent for the U.S. (U.S. Department of Commerce, 1976). From 1960-1970 there was a 27.6 percent increase in urban population, while for that same period the rural areas decreased in population by a -7 percent (Bureau of Economic and Business Research, 1976).

The largest concentration of population is along the Wasatch Front, with the four Wasatch Front Counties (Salt Lake, Weber, Davis, and Utah) accounting for less than 5 percent of Utah's land area but containing 77 percent of the state's population (Bureau of Economic and Business Research, 1976). The other 25 counties share the remaining 23 percent in varying proportions. Figure 4 shows the greatest increases are projected for the Wasatch Front and the northern planning districts (Bear River, Wasatch Front, and Mountainlands) (Bureau of Economic and Business Research, 1976).

MULTICOUNTY PLANNING DISTRICTS	1975p	1980*	1985*	1990*	Percent Change
Bear River District	80,900	98,623	110,337	120,340	+49
Wasatch Front District	788,100	907,635	997,612	1,062,640	+35
Mountainlands District	179,300	218,428	258,649	284,634	+59
Central District	42,600	43,419	45,288	48,372	+14
Southwestern District	42,700	67,236	81,868	88,959	+108
Uintah Basin District	30,100	37,133	36,440	34,554	-15
Southeastern District	43,300	51,238	58,298	61,285	+42
STATE OF UTAH	1,207,000	1,423,711	1,588,492	1,700,784	+41

p = preliminary * = projections

Figure 4. Population projections for Utah and Multicounty Planning Districts, 1980-1985-1990.

Source: 1976 Statistical Abstract of Utah, Bureau of Economic and Business Research, College of Business, University of Utah.

The Southwestern District is expected to double in population by 1990. The Southeastern and Central Districts also show projected increases while the Uintah Basin District is projected to increase until 1980 and then decrease at a rate of about 7 percent by 1990. (Note: According to the 1970 U.S. Census definition, an urbanized area comprises at least one city of 50,000 inhabitants plus contiguously, closely settled areas (U.S. Department of Commerce, Bureau of Census, 1975).

In conclusion, Utah's physiographic and demographic characteristics influence patterns of growth and development in Utah. These growth patterns in turn affect environmental health problems which vary due to individual locales.

The following examples of some environmental health problems, specific to certain areas of the state, show the need for local representation and a coordinated local and state government approach to environmental health planning.

The highly urbanized population is concentrated along the Wasatch Front which causes air quality problems due to high use of automobiles and industrialization. There are problems of water quality and solid waste disposal, among others, in rapid population growth areas of the State. In rural areas, the major problems presently appear to be related to less than optimal housing and water quality, as a result of insufficient population bases to find more sophisticated systems (Public Regional Planning Body, Utah Health Systems Agency, 1976).

It should also be pointed out that the political climate in the State of Utah must be considered an important factor in a coordinated approach to environmental health planning. Utah has traditionally been a conservative state politically. Public attitude tends toward traditional life styles and change is viewed adversely. Despite the obvious focus of the State on the Salt Lake area, each subarea of the State has a very strong regional and local identity. This is particularly true outside the Wasatch Front area. The problem of allowing for planning on a local level, while still maintaining central integrity, in an atmosphere suspicious of centralized decision-making, will not be easy to resolve (Public Regional Planning Body, Utah Health Systems Agency, 1976).

CHAPTER V

EXISTING SITUATIONS

The nature and background of the study have identified the areas of research which are necessary to analyze the existing situations in Utah. From this analysis, recommendations can be made as to the future role an Utah State Comprehensive Health Planning Agency may play in environmental health planning. The discussion will include analysis of the following elements:

- 1) General goal statements for environmental health planning in Utah;
- 2) Intergovernmental planning coordination in Utah;
- 3) The organization of multicounty health districts in Utah;
- 4) Utah state agencies which have responsibilities in areas of environmental health;
- 5) The implications of public law 93-641 (the National Health Planning and Resources Development Act of 1974), and Utah Senate Bill No. 45 (the Health Planning and Resources Development Act of 1976).

Goals for Environmental Health Planning

According to Etzioni (1964) organizations are planned social units, deliberately structured for the purpose of attaining specific goals. The plan of this thesis follows this definition of organizations. Goals for environmental

health planning in Utah have been broadly identified by federal and state legislation, by the Utah State Office of Comprehensive Health Planning, and by State Executive Order.

Goals for environmental health planning
in Utah as identified by federal and
state legislative policy

The enactment of Public Law 89-749, officially known as the Comprehensive Health Planning and Public Health Services Amendments of 1966, was the first real move to achieve effective, coordinated, and cooperative action at the federal, state, and community levels in developing a comprehensive health plan for the State. The goals are stated as follows:

The Congress declares that fulfillment of our national purpose depends on promoting and assuring the highest level of health attainable for every person, in an environment which contributes positively to healthful individual and family living . . . (Utah State Office of Comprehensive Health Planning, 1975, Introduction)

The environmental health mandate is unclear as to the actual role of the State Agencies in environmental health planning. It does, however, show the responsibility of keeping the people out of the health treatment system, which can only be done by promoting the kind of work, home, and environmental quality that will enhance personal health and well-being.

In January 1975, Congress passed Public Law 93-641, cited as the National Health Planning and Resources Development Act of 1974. The act requires the Department of Health, Education, and Welfare to formulate national health planning goals and objectives. Priority consideration is to be

given to 10 items specified in the law. Eight of these items deal with the health care system, one pertains to health education, and one addresses the preventive focus of health planning. Section 1502-8 of Public Law 93-641 (1973, p. 4) refers to the item of prevention: "The promotion of activities for the prevention of disease, including studies of nutritional and environmental factors affecting health and the provision of preventive health care services."

Utah Senate Bill No. 45 was passed during the 1976 budget session. The purpose of this act is to create a public health systems agency. The goals and objectives regarding the health systems agency's role in environmental health planning are not clearly defined, however functions of the health systems agency include the establishment of a health systems plan which is described as a detailed statement of goals describing a healthful environment (Utah Senate Bill No. 45, 1976).

The basic health goals for Utah as defined
by the Utah State Office of Comprehensive
Health Planning

The basic health goals for Utah as stated by the Office of Comprehensive Health Planning have generally included environmental health aspects. The following key phrases provide elements of goals for environmental health planning:

To make possible . . . freedom from preventable disease, both physical and emotional. To achieve and maintain a healthful and esthetically pleasing environment . . . To prevent accidents . . . To make health education broadly available . . . To develop an overall plan and planning capability . . . with concern for future as well as present generations . . . (Utah State Office of CHP, 1975, p. 1)

Environmental health goals as identified
by the Utah State Executive Order on
Environmental Quality

In 1974, the Governor of Utah issued an Executive Order on Environmental Quality which is based on the recognition of the profound impact of man's activity on the interrelations of all components of the natural environment, and the recognition of the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man. The goal of the State of Utah is

to foster and promote general health and welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic and other requirements of present and future generations of Utahns. (State of Utah, 1974, p. 1)

This goal is further defined by the delineation of State responsibilities, which are to:

- 1) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations,
- 2) Assure for all Utahns safe, healthful, productive, aesthetically and culturally pleasing surroundings,
- 3) Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences,
- 4) Preserve important historic, cultural, archeological, and natural aspects of our state heritage; and maintain, whenever possible, an environment which supports diversity and variety of individual choice,
- 5) Achieve a balance of resource use which will permit high standards of living and wide sharing of life's amenities,
- 6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. (State of Utah, 1974, p. 1)

Currently the goals for environmental health planning are broad and general. Federal legislation has provided a framework for comprehensive health planning and the individual states have interpreted this mandate in varying degrees of comprehensiveness. Senate Bill No. 45 and the Utah State Executive Order on Environmental Quality provide goal statements for maintaining a quality environment for public health, safety, and welfare. The basic health goals for Utah generally point out the relationship of personal health to the environment.

Because of the nonspecific nature of existing goal statements, further delineation of these goals and objectives is needed to guide decision making at all levels of government. Specific state policy regarding growth and development and a healthy environment should be formulated through local input. These policy statements must involve trade offs between economic interests, physical and mental health of the public, and social well-being of the residents of Utah.

Intergovernmental Planning Coordination in Utah

The term organizations refers to planned units, deliberately structured for the purpose of attaining specific goals. Organizations are made up of a combination of various layers that differ in their degree of specialization. The tendency is for the lower levels to be organized according to action or service principles and the higher ones by purpose and/or process (Etzioni, 1964). The task then is to relate a multitude of policies, plans, and programs

to one another in a coordinated and consistent way in order to accomplish desired results. Utah recognized the need for intergovernmental planning coordination--coordination of federal, state, and local decision making as well as coordination between legislative and executive branches at each level. The main objectives of Utah's approach to such coordination are to reaffirm the State's role within the federal system, and return the authorities to the State and local units of government (State Planning Coordinator and the Department of Community Affairs, 1975).

This section describes the Utah approach to intergovernmental planning coordination in order that recommendations on the organization of environmental health planning in Utah can be incorporated into the existing State planning structure. The discussion includes:

- 1) local input into the State planning process,
- 2) State government agency coordination, and
- 3) the state/local planning coordination system.

Local input into the State planning process

The following describes how local elected officials working through the Multicounty Planning Districts (MCD) and the Multicounty Association of Governments (AOG) cooperate with state and local agencies to affect inter-governmental planning coordination in Utah.

In 1970 the Governor established multicounty district boundaries in Utah for purposes of statewide planning. Figure 5 shows the boundaries of

these multicounty districts and AOGs (State Planning Coordinator and the Department of Community Affairs, 1975).



Figure 5. Utah's Multicounty Districts and Associations of Governments (AOGs).

Source: State Planning Coordination and the Department of Community Affairs, 1975. Intergovernmental Planning Coordination: The Utah Experience, p. 8.

The Governor indicated the objectives for districting as follows:

- 1) To provide for a uniform basis to coordinate major state plans and programs,
- 2) To enable the use, by all state and federal agencies, of a common set of districts for planning and administrative purposes,

- 3) To develop a method for coordinating federally sponsored or operated programs at sub-state levels with each other, and with state programs,
- 4) To provide a strengthened role for county and municipal officials in the execution of state and federal programs at the local level,
- 5) To provide a consistent, area framework for the gathering, processing and analyzing of planning and administrative information and data,
- 6) To eliminate overlap, duplication and competition between various levels of government and thus facilitate the most effective use of the State's resources (Public Regional Planning Body, Utah Health Systems Agency, 1976, p. 14).

The members of each multicounty district voluntarily formed an association of governments (AOG) to insure each entity within the boundaries of the multicounty district. In some of the more populous areas, counties also have formed, within AOGs, what are known as councils of governments (COGs). Each COG consists of all local government entities within a single county (State Planning Coordination and the Department of Community Affairs, 1975).

Figure 6 illustrates the basic pattern for AOGs. The structure, authority, utilization, and staffing vary from one AOG to another. Each association decides which issues it chooses to deal with, what funds it accepts for those purposes, and whether it undertakes direct operation of programs.

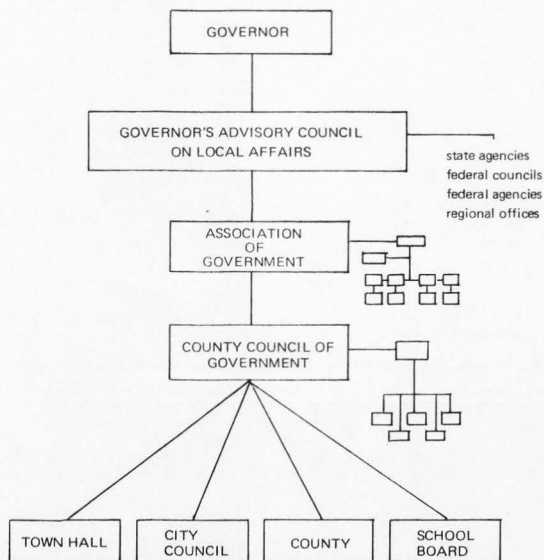


Figure 6. Basic pattern for Multicounty Association of Governments (AOGs).
 Source: State Planning Coordinator and the Department of Community Affairs, 1975. Intergovernmental Planning Coordination: The Utah Experience.

Operational control to the present time has been confined by federal agency guidelines to the areas of mental health, health and social services, and manpower (State Planning Coordinator and the Department of Community Affairs, 1975).

Since 1971 the State has provided a small amount of funds which the associations have combined with funds derived from their own local assessments and matched federal planning funds under a variety of programs.

Utah now has seven AOGs within seven multicounty districts. Each draws representation from local jurisdictions within its area, and each sends representatives to the Governor's Advisory Council on Local Affairs (State Planning Coordinator and the Department of Community Affairs, 1975).

The Governor's Advisory Council on
Local Affairs (GACLA)

The purpose of GACLA is to serve as a vehicle for local input into the State government planning process. Identification of local problems enables development of state and federal policies to better reflect local needs. GACLA is composed of representatives from each multicounty AOG, the executive officers of the Utah League of Cities and Towns, and the Utah Association of Counties. The Department of Community Affairs acts as staff to GACLA and its director is a member of the Governor's personal staff (see Figure 7).

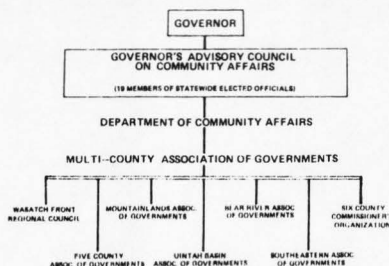


Figure 7. Governor's Advisory Council on Local Affairs (GACLA).

Source: State Planning Coordinator and the Department of Community Affairs, 1975. Intergovernmental Planning Coordination: The Utah Experience, p. 13.

The functions of GACLA are as follows:

- 1) To serve as a common forum to identify, discuss, study, and bring into focus statewide problems and opportunities with regard to the functioning of local government.
- 2) To provide a continuing organizational system for the exchange of information and data to local government and to insure effective communication among various governmental levels.
- 3) To review, comment upon, and coordinate state and federal programs pertaining to local affairs and make recommendations to the responsible agencies in outlining and executing programs to insure that they are consistent with the overall best interests of local government.
- 4) To act as a consolidated advisory body to integrate local viewpoints in the administration of federal aid programs pertaining to local affairs and to serve as statewide advisors to the program administrator in the formulation and adoption of general policies with respect to state government action involving common local governmental units.
- 5) To maintain liaison between governmental units and organizations. In fulfilling this purpose, the council recognizes the statewide role of the Utah League of Cities and Towns and the Utah Association of Counties and similar organizations serving local governments and contemplates support and cooperation with such organizations. (State Planning Coordinator and the Department of Community Affairs, 1975, pp. 14-15)

State government agency coordination

Another link is necessary for functional intergovernmental planning coordination. This is provided through the Office of the State Planning Coordinator and the State Planning Advisory Committee (SPAC). The SPAC, as shown in Figure 8, coordinates the responses of numerous State agencies to both federal and local concerns and brings individual State agencies under a common set of priorities and policies as set forth by the Governor and the State legislature. The SPAC also serves as the State clearinghouse for review of applications for federal funds, of Environmental Impact Statements,

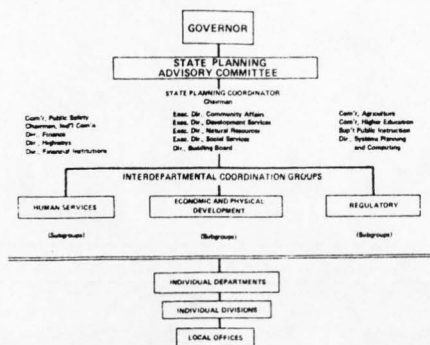


Figure 8. State Planning Advisory Committee (SPAC).

Source: State Planning Coordinator and the Department of Community Affairs, 1975. Intergovernmental Planning Coordination: The Utah Experience, p. 16.

and of proposed State legislation (State Planning Coordinator and the Department of Community Affairs, 1975). To carry out these duties, the SPAC has established three interdepartmental coordination groups (ICGs) within three major categories. The categories and agencies are listed in Figure 9. Representatives of various State agencies participate with the groups to which their specific functions relate. Some agencies perform functions that fall under all three headings. It is within these ICGs that actual planning and coordination occur.

INTERDEPARTMENTAL COORDINATION GROUPS

HUMAN SERVICES	ECONOMIC & PHYSICAL DEVELOPMENT	REGULATORY
SOCIAL SERVICES	HIGHWAYS	FINANCIAL INSTITUTIONS
EXECUTIVE DIRECTOR	DIRECTOR	SECRETARY OF STATE
PUBLIC INSTRUCTION	ENGINEER FOR PRECONSTRUCTION	AGRICULTURE CO.
SUPPLEMENTAL INSTRUCTION	ENGINEER FOR PLANNING & PROGRAMMING	COMMUNITY AFFAIRS
HIGHER EDUCATION	NATURAL RESOURCES	FINANCE
COMMISSIONER	EXECUTIVE DIRECTOR	BUSINESS REGULATION
PUBLIC SAFETY	DEVELOPMENT SERVICES	UNIFORM CONTROL
COMMISSIONER	DIRECTOR, INDUSTRIAL PROMOTION	AUDITOR
INDUSTRIAL COMMISSION	DIRECTOR, TRAVEL DEVELOPMENT	TREASURER
CHAIRMAN	DIRECTOR, AERONAUTICS	AERONAUTICS
ADMIN. DEPT. EMPLOYMENT	AGRICULTURE	INSURANCE
SECURITY	COMMISSIONER	TAX COMMISSION
NATURAL RESOURCES	COMMUNITY AFFAIRS	FIRE PREVENTION BOARD
DEPARTMENT PLANNER	DEPUTY DIRECTOR	HEALTH
BUILDING BOARD	MANPOWER PLANNING COUNCIL	ARMORY BOARD
ADMINISTRATIVE ASSISTANT	COUNCIL MEMBER	COUNCIL OF DEFENSE
SPACE UTILIZATION ANALYST	BUSINESS REGULATION	PUBLIC SAFETY
COMMUNITY AFFAIRS	SECRETARY PSC	HIGHWAYS
EXECUTIVE DIRECTOR	BUILDING BOARD	INDUSTRIAL COMMISSION
	ADMIN. ASSISTANT	BUILDING BOARD
	SPACE UTILIZATION ANALYST	
	ENVIRONMENTAL HEALTH	
	DIRECTOR	

Figure 9. Interdepartmental Coordination Groups (ICGs).

Source: State Planning Coordinator and the Department of Community Affairs, 1975. Intergovernmental Planning Coordination: The Utah Experience, p. 17.

It should be pointed out that the authority of SPAC, as with AOGs, is never more than the combined powers vested in participating groups. Therefore, neither SPAC nor the Associations of Government constitutes another level of government (State Planning Coordinator and the Department of Community Affairs, 1975).

The State/local planning coordination system

The structure of the State agency coordinating mechanism appears in Figure 10. It illustrates the arrangement in which

- 1) the State divisions go together to make up departments,
- 2) the departments join to form three interdepartmental coordination groups, and

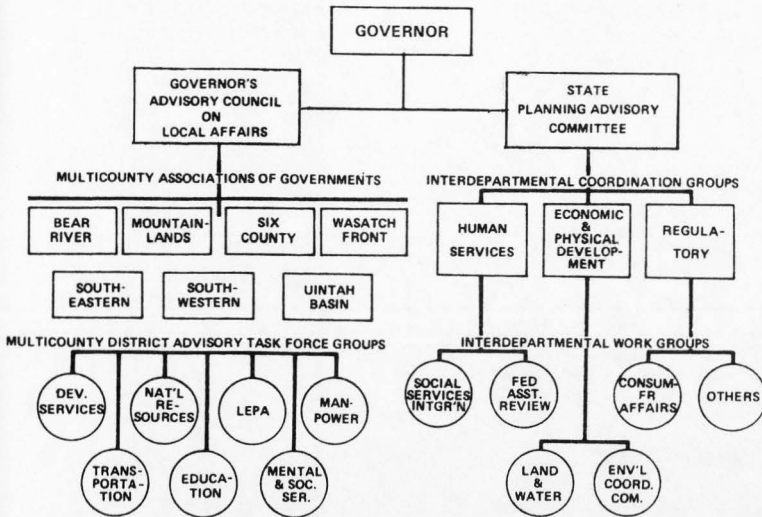


Figure 10. Functional operations of the Governor's Advisory Council on Local Affairs (GACLA) and the State Planning Advisory Committee (SPAC).

Source: State Planning Coordinator and the Department of Community Affairs, 1975. Intergovernmental Planning Coordination: The Utah Experience, p. 19.

- 3) the interdepartmental groups in turn relate to a single State Planning Advisory Committee (SPAC) to the Governor (State Planning Coordinator and the Department of Community Affairs, 1975).

This structure directly parallels a similar system for units of local government. Counties, cities and towns, and school districts combine to form county councils of government. Representatives of COGs form their

respective multicounty AOGs. Associations of government are represented by city and county officials on the Governor's Advisory Council on Local Affairs. Thus, the Governor has two statewide advisory bodies, the State Planning Advisory Committee and the Governor's Advisory Council on Local Affairs. They are linked at the local level by state agency representatives who participate in local AOG advisory committees. A circle is thus created between geographic localities and functional activities by local interaction (State Planning Coordinator and the Department of Community Affairs, 1974).

In conclusion, there are three important features of the Utah approach to accomplish intergovernmental planning coordination:

- 1) Provides for the direct participation of affected and interested parties on an intergovernmental basis (i.e., local, state, and federal governmental agencies as well as private citizens);
- 2) Encourages decision making to be made to the greatest extent possible at the local level;
- 3) Encourages the development of a planning process.

This process encourages the effective coordination among government agencies in Utah at both State and local levels. Environmental health planning should be incorporated into this process to the fullest extent possible for efficiency of work effort.

Multicounty Health Districts in Utah

The multicounty health districts in Utah follow basically the same geographical boundaries as the multicounty planning districts, however, there are currently no formal, and minimal informal relationships existing between the AOGs and the local district health departments. The following analysis of the organization of multicounty health districts is presented to make recommendations for the future coordination of these institutions in environmental health planning. For the purpose of this study the discussion of the organization and activities of the local district health departments will be limited to those functions of environmental health.

The organization of local district health departments

A statewide uniform public health program is required under Section 26-15-7 of Utah Code Annotated, 1953, as amended:

26-15-7. State board of health--Uniform public health program.-- The state board of health shall establish reasonable standards for a uniform public health program throughout the state which shall include continuous service, employment of qualified employees and a basic program of disease control, vital statistics, sanitation, public health nursing, and such other preventive health programs, not inconsistent with law, that may be deemed necessary or desirable for the protection of the public health. (State of Utah, Department of Social Services, Utah State Division of Health, 1975, p. i)

By statute, local health departments, through the local board of health, enforce State public health laws, as interpreted by policies, regulations and standards. They also enforce local health ordinances and standards

which are equal to, or more restrictive than but not in conflict with, those of the State (State of Utah, Department of Social Services, Utah State Division of Health, 1975).

The organization of public health services on a multicounty basis was provided for by state statutes enacted in 1945. However, it was not until certain amendments were added in 1971, that State funds were appropriated which provided the financial impetus required to accomplish districting. In 1971, the State Board of Health developed districting standards and the funding formula for the allocation of State funds to organized district health departments throughout Utah.

According to the Utah State Health Division, Utah State Department of Social Services, Community Health Services Branch (1975, p. 4), "the appropriation for districts and the subsequent distribution of these added funds by the State Health Division, has improved local public health services." The availability of this incentive money has permitted the districts to employ a full time medical director, environmental health personnel, a community health educator, a vital statistics personnel, and others.

Jurisdictional boundaries of multicounty health districts

The boundaries of multicounty health districts follow those of the multicounty planning districts, except for the designation of two health districts within the Wasatch Front District. According to the State of Utah, Department of Social Services, Utah State Division of Health (1975), two or

more contiguous counties may unite to create and maintain a full time district health department. Counties lie within the following general groups of counties:

- 1) District #1, the Bear River District: Box Elder, Cache, Rich Counties.
- 2) District #2A, the Weber-Morgan District: Morgan, Weber Counties (Davis County is not currently part of the District).
- 3) District #2B, the Great Salt Lake District: Salt Lake, Tooele Counties.
- 4) District #3, the Mountainlands District: Summit, Utah, Wasatch Counties.
- 5) District #4, the Central Utah District: Juab, Millard, Piute, Sanpete, Sevier, Wayne Counties.
- 6) District #5, the Southwestern District: Beaver, Garfield, Iron, Kane, Washington Counties.
- 7) District #6, the Uintah Basin District: Daggett, Duchesne, Uintah Counties.
- 8) District #7, the Southeastern District: Carbon, Emery, Grand, San Juan Counties. (State of Utah, Department of Social Services, Utah State Division of Health, 1975, p. 1)

Where warranted, special exceptions may be granted to local officials wishing to organize multicounty health districts with boundaries differing from those established above. Petition by those counties directly involved must be submitted in writing to the State Board of Health for consideration of such requests and concurrence from the Office of the Governor must be obtained.

For purposes of efficiency and coordination, cities and towns should be given added incentives to incorporate into the designated health districts. In addition, the boundaries of the multicounty health districts should be maintained as nearly as possible to further coordinate the functions of the AOGs and the local health departments in environmental health planning.

Requirements for district organization

The State Health Division requires the following documents of districts in order to contract funds to them:

- 1) An annual plan, stating the problem, objectives, method to be used in accomplishing the objectives, and evaluation techniques,
- 2) Submission of a provisional budget,
- 3) Submission of an annual report on department activities (State of Utah, Department of Social Services, Utah State Division of Health, 1975).

These documents should result from a coordinated effort among the AOG, the COG, the local health department and the local planning departments.

Environmental health services of local district health departments

According to the State of Utah, Department of Social Services, Utah Division of Health (1975) the minimum environmental health services which will be provided in the following service areas in conformance with the standards and regulations of the Utah State Division of Health include:

- 1) Air pollution
- 2) Food service
- 3) Housing
- 4) Occupational health
- 5) Plumbing
- 6) Private water supplies and waste disposal
- 7) Public buildings (including schools)
- 8) Public water supplies
- 9) Radiological health
- 10) Rodent and insect control
- 11) Recreational facilities, including swimming

- 12) Subdivisions
- 13) Solid waste management
- 14) Transient facilities
- 15) Water pollution control
(State of Utah, Department of Social Services, Utah State
Division of Health, 1975, p. 13)

The local environmental health staff becomes involved, as necessary, in enforcement of appropriate standards and regulations, in consultation with the State environmental health personnel. Although State Board of Health regulations and standards have the effect of law, experience has shown that enforcement, when required, is more speedily effected by enforcement of local ordinances than by State regulations. It is, therefore, recommended that appropriate State Board of Health regulations and standards be prepared and adopted by cities and counties within the jurisdiction of district or county health departments. Enforcement of such ordinances may then be carried out primarily under local authority (State of Utah, Department of Social Services, Utah State Division of Health, 1975).

These program areas, cited above, further indicate the need for cooperation between the land use planning activities of the AOG, COG and local planning agencies with the environmental health services of the local health department.

Local public health departments through the environmental health services, enforce the State public health laws, as well as the local health ordinances and standards. Since the effectiveness of multicounty health departments in Utah has been demonstrated, localities which have not

incorporated into the designated multicounty health departments should be given additional incentives to do so. The local health departments should also coordinate with the AOGs, the COGs and the local planning departments in promoting local input into the State environmental health planning process.

Utah State Agencies Having Responsibilities
Related to Environmental Health

The nature and background of the study pointed out the complexity of the interrelationships between various components of the environment, and showed the need for an interagency approach to environmental health planning. The purpose of this section is to identify the Utah State government agencies which have responsibilities related to environmental health. This information provides a basis for the coordination functions of the Utah State Comprehensive Health Planning Agency in environmental health.

It is not the intent to provide a detailed survey of the structure and function of individual agencies. Further research is indicated in the evaluation of the actual performance and interrelationships of agencies in reference to stated goals and objectives. It is the intent of this section to provide an overview of the State agencies addressing environmental health, and provides a basis for coordination through the stated purposes.

For the purpose of this study emphasis is on the agencies addressing environmental factors as they relate to the physical health of populations. It should be pointed out that the mental and social health of people is also affected

by environmental factors. Further research is needed to link environmental factors to public mental and social well-being. Therefore, the list of State agencies is not exhaustive and an inventory of public and private voluntary agencies, as well as local and federal agencies, addressing environmental health would be valuable for the coordination of functions.

The primary sources of information regarding the State agencies' major responsibilities in environmental health are the State of Utah Annual Budget for the fiscal period beginning July 1, 1975, ending June 30, 1976, and other secondary information sources on the role of various agencies. Informal personal and telephone contacts with agencies were conducted when necessary for clarification and/or identification of responsibilities.

The organizational chart of the Utah State Government (see page 61) indicates the departments, bureaus, and divisions with responsibilities related to environmental health. The nonshaded blocks are the agencies which are included in the study. The variety of agencies within the organizational structure which are addressing environmental health issues should be noted. A matrix (see page 62) displays the State agencies and their major responsibilities related to environmental health.

The Utah State agencies which have responsibilities related to environmental health include:

- 1) The Office of the State Planning Coordinator,
- 2) The Department of Community Affairs,
- 3) The Division of Health in the Department of Social Services,

- 4) The Department of Natural Resources,
- 5) The Department of Public Safety,
- 6) The Division of Industrial Promotion,
- 7) The Division of Occupational Safety and Health under the Industrial Commission,
- 8) The Department of Transportation,
- 9) The Department of Systems Planning and Computing,
- 10) Recreational Vehicle Standards Division of The Department of Business Regulations,
- 11) The Department of Agriculture.

Many agencies in various departments throughout the State government have a role in environmental health and these roles vary with differing degrees of emphasis in environmental health. The Office of the State Planning Coordinator and the Department of Community Affairs are located within the Office of the Governor. A major role of these agencies lies in the formulation of State policies affecting environmental health planning.

The Office of the State Planning Coordinator is responsible for advising the Governor on governmental planning matters relating to public improvements, governmental programs and land use. Activities are directed toward establishing legal, administrative and policy means to coordinate planning efforts and programs at federal, State, and local governmental levels. The objective of the Health, Education, and Welfare program of the Office is to create the greatest possible degree of coordination between State related health, education

and welfare programs while at the same time utilizing the resources in these areas to the maximum extent (State of Utah, Department of Finance, 1976).

The purpose of the Department of Community Affairs is to provide for State financial and technical assistance to the communities of the State, and to otherwise assist in community development in order to improve the health, safety, and living standards of the residents of Utah (State of Utah, Department of Finance, 1976).

The Office of the State Planning Coordinator and the Department of Community Affairs, then, are the key agencies to coordinate with the State Comprehensive Health Planning Agency in the development of State policy in areas of environmental health.

The Bureau of Environmental Health, in the Division of Health, and the Department of Natural Resources have major functions affecting the environment and man's health status. The orientation of the Bureau of Environmental Health is on man's health and well-being, while the Department of Natural Resources emphasizes maintaining a quality environment. Drawing from the previous discussion of the relationship between man's health status and environmental quality, it is necessary to coordinate the activities of these agencies towards common policy goals.

The responsibilities of the other agencies have varying degrees of involvement which change as the need indicates. For a further description of the individual State agencies purpose in environmental health refer to Appendix A.

Figure 11. Utah State Government Organizational Chart as of July 1, 1975.
Prepared by the Staff of the Utah Legislative Council, May 1975.

———: Administrative Authority
=====: Legislative and/or Judicial
-----: Advisory Authority

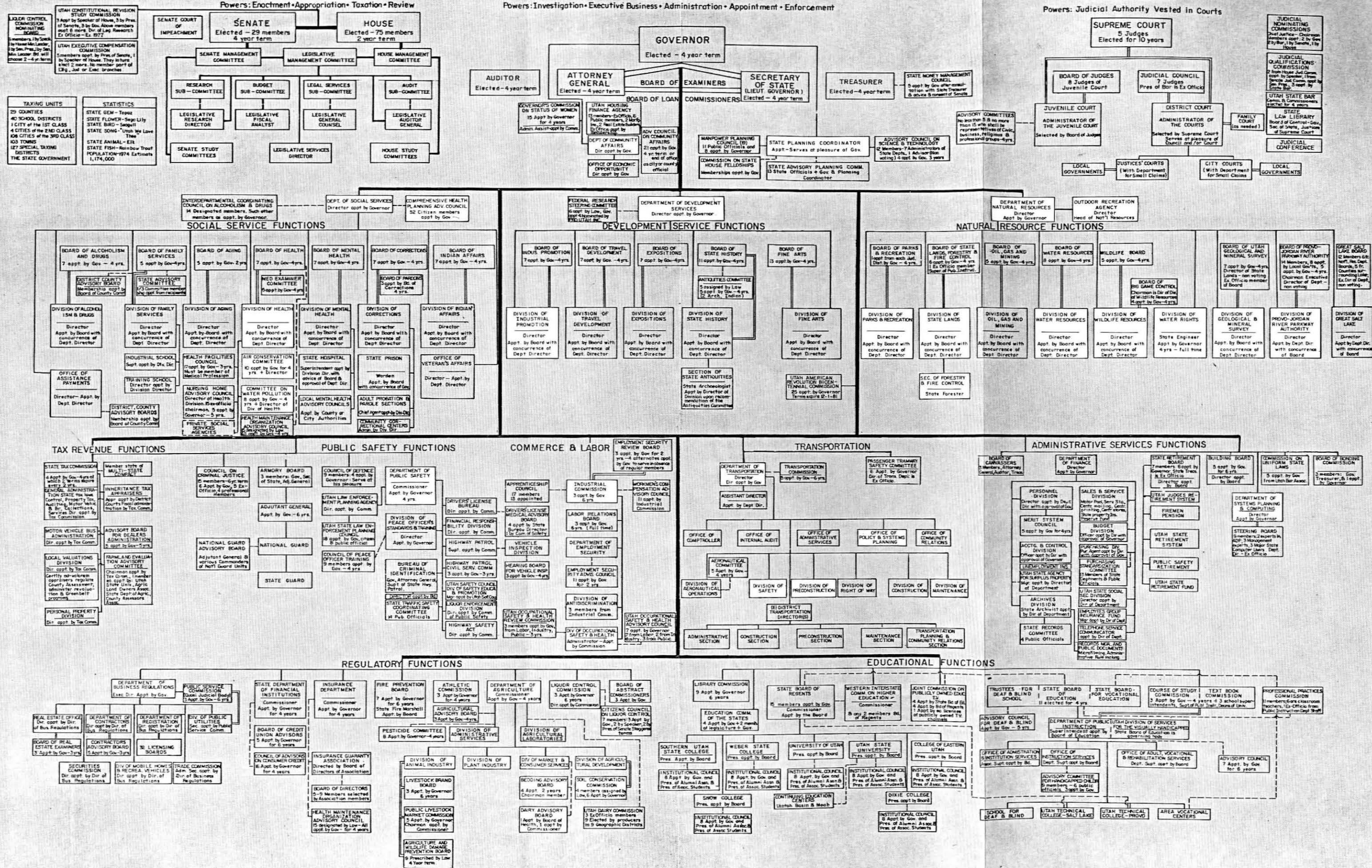
Note: Nonshaded agencies have environmental health responsibilities.

EXECUTIVE

JUDICIAL

Powers: Investigation • Executive Business • Administration • Appointment • Enforcement

Powers: Judicial Authority Vested in Courts



STATE AGENCY	ENVIRONMENTAL HEALTH RESPONSIBILITIES													
	air quality	noise control	pest control	sanitation safety	occupational safety	radiation safety	hazardous waste	hazardous materials	hazardous waste management	hazardous waste control	hazardous waste disposal	hazardous waste treatment	hazardous waste storage	hazardous waste disposal
OFFICE OF STATE PLANNING COORDINATOR	x	x												
DEPARTMENT OF COMMUNITY AFFAIRS		x												
DEPARTMENT OF SOCIAL SERVICES														
Division of Health														
Office of Comprehensive Health Planning	x	x	x	x	x									
Office of Health Planning	x	x												
Bureau of Health Statistics														
Community Health Services														
Bureau of Disease Prevention		x	x											
Bureau of Environmental Health														
Bureau of General Sanitation														
Bureau of Air Quality	x	x	x	x										
Bureau of Water Quality	x	x	x	x										
Bureau of Solid Waste Management	x	x	x											
Bureau of Radiological/Occupational Health														
Bureau of Epidemiology														
DEPARTMENT OF NATURAL RESOURCES														
Division of State Lands														
Section of Forestry and Fire Control														
Utah Outdoor Recreation Agency														
Division of Geological and Mineral Survey														
Division of Wildlife Resources														
Division of Parks and Recreation														
Division of Water Resources														
Division of Water Rights														
Division of Provo Jordan River Parkway														
DEPARTMENT OF PUBLIC SAFETY														
Department of Systems Planning and Computing														
DEPARTMENT OF DEVELOPMENT SERVICES														
Division of Industrial Promotion														
COMMERCE AND LABOR FUNCTIONS														
Industrial Commission														
Division of Occupational Safety and Health														
DEPARTMENT OF TRANSPORTATION														
Office of Policy and Systems Planning														
Safety Section														
Office of Pre Construction														
ADMINISTRATIVE SERVICE FUNCTIONS														
Department of Systems Planning and Computing														
REGULATORY FUNCTIONS														
Department of Business Regulations														
Recreational Vehicle Standards Division														
DEPARTMENT OF AGRICULTURE														
Animal Industry Division														
Plant Industry Division														
Marketing and Consumer Services Division														
Division of Agricultural Development														

Figure 12. Utah State agencies and their environmental health responsibilities.

Environmental health planners should become familiar with planning being done by agencies and organizations in the State. Planning for industrial development, highways, and zoning regulations, for example, have important implications for environmental health plans and programs. Through coordination and cooperation with related planning agencies, the environmental health planner can obtain technical advice and information he needs for planning. He can avoid designing a program which is not appropriate in terms of other developments (U.S. Department of Health, Education, and Welfare, Public Health Service, Bureau of Community Environmental Management, 1971).

Implications of Public Law 93-641 and

Utah Senate Bill No. 45

Health planning programs are currently under revision through amendments to the Public Health Service Act. These amendments are embodied in Title XV of Public Law 93-641, titled the "National Health Planning and Resources Development Act of 1974." The purposes of this Act are to assure the development of a national health planning policy and to facilitate effective State and area health planning and resources development programs, Utah Senate Bill No. 45, entitled "The Health Resources Development Act of 1976," is the State enabling legislation for Public Law 93-641. The following section will present the organization of health planning as established by Public Law 93-641 and Senate Bill No. 45. The purpose of this thesis requires discussion of these laws with respect to the organizational structure of health

planning in Utah in order to develop recommendations as to the role of the Utah State Office of Comprehensive Health Planning in Environmental Health Planning. Discussion will be limited to those portions of the legislation which relate to organizational structure of health planning.

Public Law 93-641

The program of health planning authorized by Public Law (PL) 93-641 is administered by the Bureau of Health Planning and Resources Development in the Health Resources Administration, U.S. Department of Health, Education and Welfare. This central office provides overall direction and policy guidance, but liaison with State and local agencies is the function of health planning staff in each of the 10 HEW Regional Offices.

Within 18 months of its enactment part A of the new Title XV of PL 93-641 requires the Secretary of HEW to issue guidelines concerning national health planning policy. These guidelines are to include a statement of national health planning goals based upon national health priorities specified in the legislation. In issuing the guidelines the Secretary is to consult with the health systems agencies (HSAs), the State health planning and development agencies (SHPDA), the statewide health coordinating council (SHCC), the National Council on Health Planning and Development established by this Act, and associations and specialty societies representing medical and other health care providers (Utah State Office of CHP, 1975).

Part B of the new Title XV creates a network of health systems agencies responsible for health planning and development throughout the country. In creating such a network, the Governors of each state would be asked to designate statewide the health service areas for planning and development purposes which meet the requirements specified in the legislation (Utah State Office of CHP, 1975). A health systems agency would conduct health planning within designated health service areas.

Functions of the HSA include:

- 1) Development and implementation of a health systems plan (HSP), which will be a detailed statement of goals describing a healthful environment and the health systems in the area. The HSP must be responsive to the unique needs and resources of the area and consistent with the national guidelines for health planning policy,
- 2) Development and enforcement of an annual implementation plan (AIP), which describes objectives which will achieve the goals of the HSP and priorities among the objectives,
- 3) Coordinate its activities with Professional Standards Review Organization and other appropriate planning agencies,
- 4) Review and approve or disapprove each proposed use of Federal funds,
- 5) Assist the State health planning and development agency (SHPDA) in determining the suitability of existing health services and the

need for new health services (Public Law 93-641, 1974, Section 1513).

Section 1512 (c) of PL 93-641 states that a health systems agency may establish subarea advisory councils representing parts of the agencies' health service area to advise the governing body of the agency on the performance of its functions.

Part C requires the Secretary to designate an agency of State government chosen by the Governor in each state to serve as the State Health Planning and Development Agency (SHPDA) to administer the State health planning and development functions. SHPDA functions are outlined as follows:

- 1) Conduct state health planning activities,
- 2) Prepare, review, and revise a preliminary state health plan which shall be made up of the HSPs of the health systems agencies within the State,
- 3) Submit the plan to the statewide health coordinating council (SHCC) and assist the SHCC in the performance of its functions,
- 4) Administer a State certificate of Need program which applies to new health services, and review appropriateness of the existing health services (Public Law 93-641, Section 1523).

Section 1524 provides for a statewide health coordinating council (SHCC) who will advise the SHPDA on the performance of its functions. The SHCC representatives are appointed by the Governor of the State from nominees submitted to the Governor by each HSA in the State. The representatives are

persons as the Governor deems appropriate, the majority of which must be consumers of health care who are not also providers of health care.

The SHCC will perform the following functions:

- 1) Review and coordinate the HSP and AIP of each health systems agency within the state and report to the Secretary of HEW,
- 2) Prepare, review, and revise state health plans which are developed from the HSPs of the HSA within the state,
- 3) Review grant applications and budgets of HSAs (Public Law 93-641, 1974).

Figure 13 shows the general framework of Utah State health planning as designated by PL 93-641.

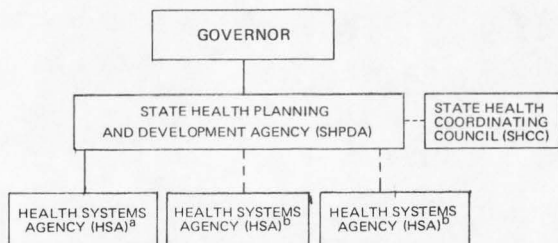


Figure 13. General framework of State health planning as designated by PL 93-641. (a) Each agency has responsibilities for a specific health systems area of the State. (b) The number of health systems agencies vary from state to state.

Utah Senate Bill No. 45

The purpose of the Health Planning and Resources Development Act, Utah Senate Bill No. 45 (1976) as described in Section 2. (1) is to create a public health systems agency which will be responsible for carrying out health planning and development activities within the designated health service area of the State of Utah. The Governor has designated one health service area (geographical area) for the State of Utah. A Health Systems Agency is a public entity which will conduct health planning and resources development within the health service area (Utah Senate Bill No. 45, 1976).

The legislative intent includes:

- 1) local input into planning and decisions,
- 2) minimizing duplication of health planning activities, and
- 3) representation of interests of health and allied health professions and other appropriate interest groups on both the Governing Board and the Health Planning Council of the Public Health Systems Agency (Utah Senate Bill No. 45, 1976).

Senate Bill No. 45 defines the two bodies required under PL 93-641 for the Public Health Systems Agency. Those bodies are a Governing Board and a Governing Body. In Utah, these two bodies are:

- 1) The "Governing Board" which means the Board comprised of a majority of elected officials responsible for overall governance of the Health Systems Agency. The HSA Governing Board is made up of 25 members, appointed by the Governor with the advice and

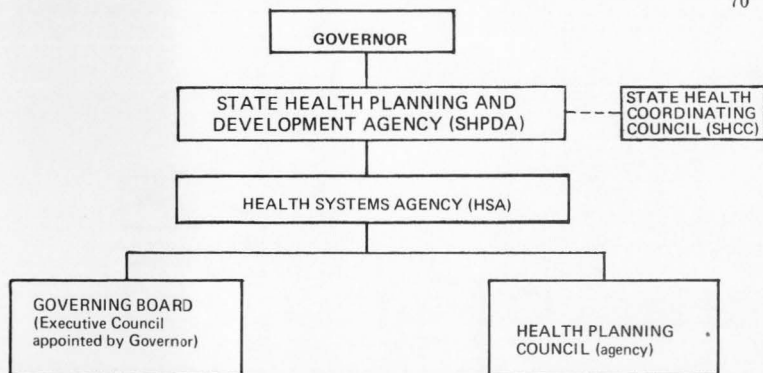
consent of the Senate. Formal approval of the Board will be in June, 1976, but officially adopted rules and regulations for the HSA will not be available until approximately the first of July, 1976 (Public Regional Planning Body, Utah Health Systems Agency, 1976);

- 2) The "Health Planning Council" means the body identified as the Governing Body of the HSA in PL 93-641. The members are selected by the Governing Board in conformance with the requirements of PL 93-641. These requirements include population distribution, economic and ethnic considerations, and provider, consumer and elected official representation. (See Figure 14 for functions of the health systems agency.)

Section 3. (9) identifies the "State health planning and development agency (SHPDA)" as the Department of Social Services in Utah. Section 8 states that the SHPDA shall be responsible to provide staff support to the HSA Governing Board as requested.

Figure 15 refers to the organizational struction for comprehensive health planning in Utah as provided by Senate Bill No. 45.

In conclusion, PL 93-641 implies designation of more than one health systems agency in a state. As identified in Utah Senate Bill No. 45, the Governor has designated one Health Service Area for the State of Utah, excluding the Utah portion of the Navajo reservation, and one Health Systems Agency to carry out health planning within the health service area. This



FUNCTIONS OF THE GOVERNING BOARD

- 1) Prepare application for funding. Provisions will be made for subarea councils;
- 2) Select and remove members of the health planning council;
- 3) Establish personnel policies and review the appointment of the executive director and staff of the health planning council;
- 4) Establish, execute, revise the agency's budget;
- 5) Establish rules and regulations for the functioning of the agency;
- 6) Review and comment on proposed action of the health planning council;
- 7) Other responsibilities consistent with PL 93-641 for effective and efficient health planning for the State;
- 8) Develop a statewide planning and development process in conjunction with the SHPDA.

FUNCTIONS OF THE HEALTH PLANNING COUNCIL

- 1) Establish a health systems plan (HSP) and annual implementation plan (AIP);
- 2) Implement the HSP and AIP;
- 3) Coordinate activities with professional standards review organization and other appropriate planning agencies;
- 4) Review and approve or disapprove proposed use of federal funds for the development, expansion, or support of health resources;
- 5) Assist the SHPDA;
- 6) Other functions as designated by the governing board of the health systems agency.

Figure 14. Functions of the health systems agency (HSA) as designated by Utah Senate Bill No. 45.

Source: Utah Senate Bill No. 45. 1976. The Health Resources Development Act.

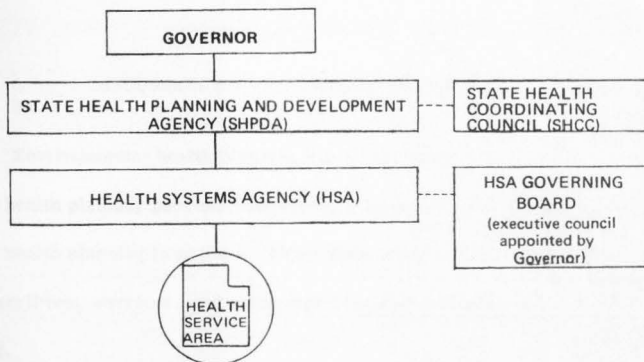


Figure 15. General organization of Utah State health planning as designated by Utah Senate Bill No. 45.

appears to effect duplication of functions between the HSA and the State Health Planning and Development Agency (SHPDA).

The incorporation of subarea councils in Utah could provide input from the local levels of government. However, inadequate funding to these councils would result in virtually nonexistent local input into the State health planning process.

Environmental health planning has a legitimate place in the comprehensive health planning process and must be incorporated into the organization established by legislation. This will allow for coordination of agency functions as well as for local input into the development of a State comprehensive plan for health, of which environmental health is a vital component.

CHAPTER VI

DISCUSSION AND RECOMMENDATIONS

Environmental health planning has a legitimate place in the comprehensive health planning process; therefore, a balanced approach to comprehensive health planning is needed. This balanced approach combines personal health facilities, services, and manpower planning and environmental health planning.

The complex interrelationships of the man-environment system and their resultant effects on man's health status causes the nature of environmental health planning to be equally complex. This complex nature of environmental health planning in turn involves a variety of persons, disciplines, and agencies which address environmental health concerns. The need for coordinating these activities to attain common goals and objectives is the task of environmental health planning.

The State has an important role in environmental health planning as pointed out by the general legal and governmental framework of public health in the U. S. Since the Utah State Office of Comprehensive Health Planning has had valuable experience in organized health planning, it should continue its present role and include environmental health planning in the comprehensive health planning process.

Utah's unique physiographic and demographic characteristics affect patterns of growth, development, and land use. These patterns effect the man-environment system by influencing man's adaptive processes, and thus impact his health status. Therefore, these patterns of growth, development and land use should be realized in establishing policies and organization for environmental health planning in Utah. Therefore, local input is an important factor in the planning process. The large percent of land controlled by government institutions also indicates the need for coordination of activities related to these lands.

Based on these findings, an analysis of the existing situations in Utah resulted in the following conclusions.

Goals for environmental health planning in Utah have been broadly and generally identified. These statements include the ideas of maintaining a quality environment for the public health, safety, and welfare. Still unidentified, however, are the components of a quality environment and their effects on man's health. Further definition of these goals is needed to guide the decision making process. The task for environmental health planners is to formulate policies through local input regarding trade-offs among the economic interests, the physical and mental health of the public, and the social well-being of the residents of Utah.

Utah's approach to intergovernmental planning coordination provides for the needed local representation in the planning process and encourages decision making at the local level. Intergovernmental planning coordination

also provides for coordination among all affected agencies at both State and local levels. Environmental health planning should be organized with respect for Utah's overall State planning process since it provides the needed agency coordination and local input.

The multicounty health departments are responsible for environmental health services at the local level. Their functions for the most part are currently not coordinated with other local planning, i. e., the multicounty association of government and the local planning departments. The environmental health activities of the local health departments should be coordinated with other local planning efforts to achieve stated goals and objectives. In addition, areas within the designated multicounty health districts should be given added incentives to incorporate into the local health districts.

To coordinate the state agencies with responsibilities pertaining to environmental health, the organizational structure for environmental health planning should provide for close coordination of the Bureau of Environmental Health, in the Division of Health, and the Divisions of the Department of Natural Resources. There should also be the opportunity to coordinate with other State agencies as needs dictate. Furthermore, the adoption of a common policy statement regarding environmental health would facilitate this coordination to provide an environment conducive to the highest possible level of health.

The organization of health planning is currently under revision according to PL 93-641 (National Health Planning and Resources Development

Act of 1975), and Utah Senate Bill No. 45 (Health Resources Development Act of 1976). The purposes of these laws are to assure the development of health planning policies and to facilitate effective state and areawide health planning and resources development programs. Since environmental health planning has a legitimate place in the comprehensive health planning process, it should be incorporated into the new organization created by these laws. Local input into the State environmental health planning process should be a major component of the organizational structure.

The following recommendations are the author's, based on findings and analysis of comparable organizations. Recommendations are presented through two interrelated modes: organizational structure and functions of the organization.

Organizational Structure

The goal of the organizational structure of environmental health planning in Utah is to provide for efficiency of work effort through coordination of State and local activities related to environmental health. The objectives which define this goal are:

- 1) To provide for local input to the State environmental health planning process.
- 2) To provide for interagency coordination at the local level.
- 3) To provide for State government agency coordination in environmental health.

- 4) To provide for State/local planning coordination in environmental health concerns.
- 5) To incorporate the environmental health planning process into the existing State system for intergovernmental planning coordination.
- 6) To incorporate environmental health planning in the organization of health planning under PL 93-641 and Utah Senate Bill No. 45.

(Note: PL 93-641 creates a network of health systems agencies (HSA) which is responsible for state health planning throughout the United States. The law also designates the state health planning and development agency (SHPDA) as the "State Agency" for which recommendations are made regarding its role in environmental health planning. The State health coordinating council (SHCC) is the advisory body for SHPDA.)

Local input to the State environmental health planning process

Utah Senate Bill No. 45 designates Utah as one Health Service Area thus creating one Health Systems Agency (HSA) for the State. It is recommended that the existing multicounty planning districts be designated as the health service areas and that the associations of governments (AOGs) be designated as the health systems agencies (HSAs). This creates seven HSAs for Utah which have the same jurisdictional boundaries as the multicounty planning districts. (See Figure 16.) This allows for local input to the State environmental health planning process and also takes advantage of the existing planning organization of the AOGs. Designating the AOGs as the HSAs also

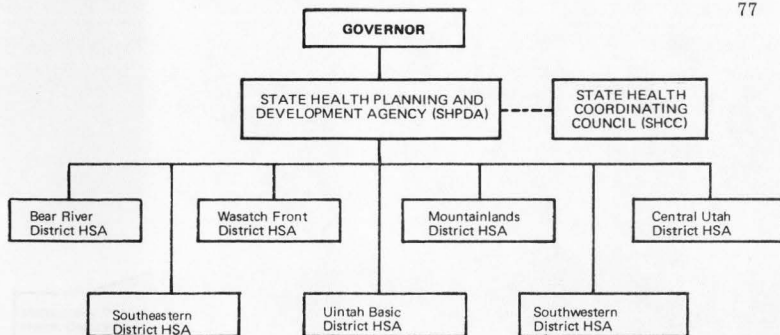


Figure 16. Multicounty health service areas and district health systems agencies (HSA). (See Figure 17 for detail of multicounty HSA.)

provides for local input on environmental health to the State planning process through the Governor's Advisory Council on Local Affairs (GACLA). (See Figure 7.) It should be noted that the HSA does not create another level of government.

Figure 17 describes how the multicounty HSA through its council on environmental health functions as a coordinating mechanism for input to the state health planning and development agency (SHPDA). The council of environmental health includes representatives from the district health department, the local planning departments, special interest groups, and technical advisors as needs dictate. A SHPDA representative to the council on environmental health provides a link for the information flow between the HSA and SHPDA.

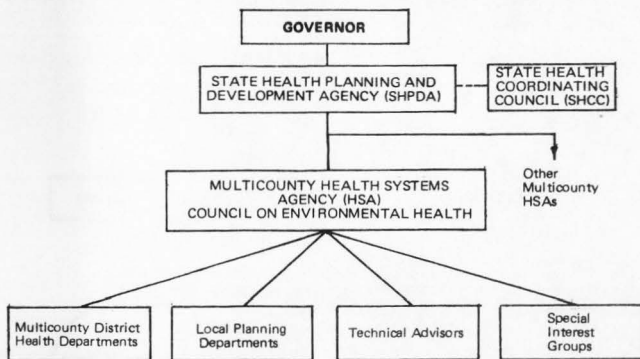


Figure 17. Council on environmental health of a multicounty health systems agency.

The State Health Planning and Development Agency (SHPDA)

SHPDA is the "State Agency" responsible for coordinating the activities of the multicounty HSAs and formulating a statewide environmental health plan based on local input. For this purpose an Environmental Health Committee is established among the other functions of SHPDA. Figure 18 shows two focuses of this committee:

- 1) coordination of the multicounty HSAs, and
- 2) coordination of the State government agencies in environmental health.

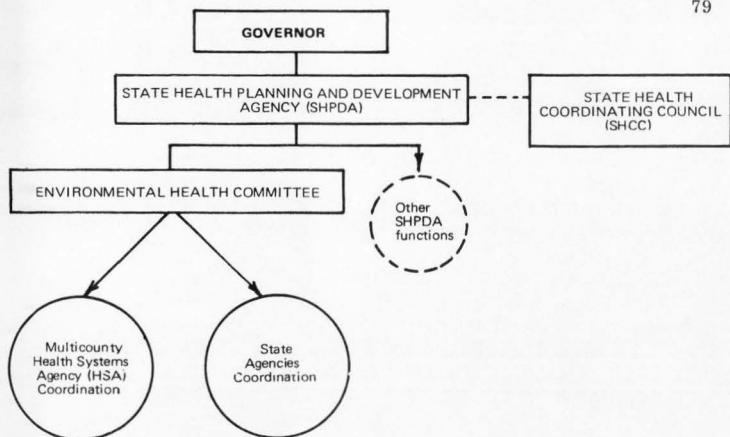


Figure 18. Functions of the environmental health committee of a state health planning and development agency (SHPDA).

Coordination of State government agencies in environmental health

The need for coordination of state agencies addressing environmental health was shown throughout this study. The Environmental Health Committee of SHPDA provides the mechanism for this coordination through its review functions. The Committee has the task of reviewing the goals and activities of the State agencies in environmental health to ascertain their appropriateness with respect to the state policy in environmental health. SHPDA in turn provides the environmental health perspective to the State Planning Advisory Committee. (See Figure 10.) Thus the state environmental health planning

process is incorporated in the state intergovernmental planning coordination system.

Figure 19 shows the organization and relationships of the SHPDA in environmental health planning.

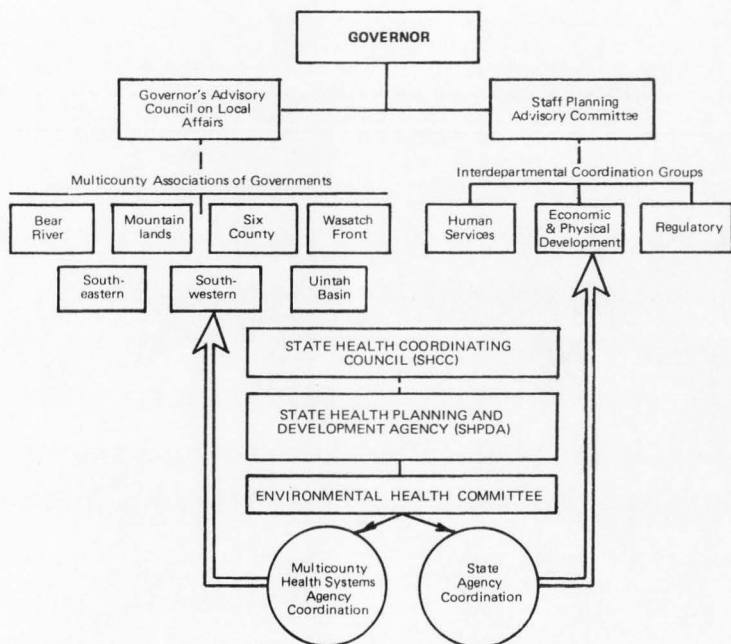


Figure 19. The organization and relationships of a state health planning and development agency (SHPDA) in environmental health planning.

Functions of the Organization

This study has indicated the need for a consistent and integrated approach in environmental health planning rather than each group working independently and often at conflicting or overlapping purposes. The organizational structure, strongly identified the coordinating functions of the State Health Planning and Development Agency (SHPDA). The following guidelines offer further definition of its role in environmental health planning.

- 1) Formulate a State plan for environmental health to contain the following:
 - A) A preventive perspective;
 - B) A well defined statement of goals and objectives;
 - C) Identify policy elements: Land use, population, water, transportation and energy should be the minimum elements included;
 - D) The agency's techniques for implementing the plan.

The State Plan offers guidance to decision makers, agencies, and the public by providing consistent, nonconflicting policy statements. The policy is formulated from local input through the HSA and through input from the State Planning Advisory Committee (SPAC) who is the interdepartmental coordinating mechanism for State government agencies.

- 2) Establish interagency relationships toward achieving the goals defined in the State plan for environmental health;

- A) Establish close formal ties with specific agencies, i.e.,
The Bureau of Environmental Health, The Department of
Natural Resources, The Department of Transportation, The
Department of Development Services.

Interaction can to a large degree determine the effectiveness of the agency in influencing environmental health decisions and policies. The type of relationships, formal or informal depends on the purpose. Strong formal ties effect transfer of information about environmental health activities and imparts a health perspective to those activities.

- 3) Organize and analyze existing, but scattered, environmental health data and information and identify new data needs;
 - A) Become familiar with existing environmental health information sources and operational information systems;
 - B) Data and information should include expansion of the knowledge of the structure and function of our environment and its affects upon human health and well-being.
- 4) Define the mandates of all subunits of SHPDA: Committees, task forces, advisory groups, etc. ;
 - A) Give direction and guidance, set time limits when necessary, and expect performance;
 - B) Support any recommendations and findings of the subunits.

- 5) Define the role of SHPDA in review and comment on environmental health concerns;
 - A) Decide what to review;
 - B) Establish review criteria;
 - C) Establish administrative procedures for review.
- 6) Provide a strong health component to any system of environmental management;
 - A) Establish the health component in standard-setting, monitoring, surveillance, assessment, evaluation, self-policing, and planning;
 - B) Incorporate the health component in the function of enforcement.
- 7) Incorporate environmental health objectives as an integral part of local planning, and work with the HSAs and public health agencies in providing environmental health standards and criteria for such planning as well as for evaluating the environmental health aspects of community planning and development;
 - A) Support and encourage local enforcement of environmental health standards.
- 8) Work on the assessment of the health impacts of the environment, using the assistance of the Office of the State Planning Coordinator.

This assessment would be on a continuing basis to determine

health impacts of man-environment interrelations within specifically designated areas of activity.

- 9) Impart an environmental health perspective to a public information and education system.

Planning for environmental health is a process of education; it is the process of redefining the goals and objectives of the State and of the communities within. Only through informed decisions can the environment be protected, maintained and improved for the health and well-being of man.

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APPENDIXES

Appendix A: Utah State Agencies Having Responsibilities

Related to Environmental Health

The following contains a list of Utah State agencies which have responsibilities related to environmental health. A brief description of their responsibilities is presented for the purposes stated in Chapter V, "Utah State Agencies Having Responsibilities Related to Environmental Health."

Department of Social Services

Division of Health--Office of Comprehensive Health. The office is responsible for statewide health planning in the areas of health services, facilities, manpower, and environmental health throughout the State. The staff in the CHP office is advised and assisted by the Governor's Advisory Council. This group is composed of consumers and providers of health services from the multicounty planning districts of the State. Activities include health plan development and implementation, studies, health policy involvement, project review, public information and education, planning coordination, areawide development and assistance, and data base maintenance (Utah Department of Social Services, Office of Planning and Research, Comprehensive Health Planning (CHP)).

Office of Health Planning. The office is responsible for assuring planning coordination within the Division of Health and between the division and other planning agencies. The Office works with the Bureau of Health Statistics in translating statistical data into a form usable for planning future

activities (Utah State Department of Social Services, Division of Health, 1975).

Bureau of Health Statistics. This Bureau is responsible for the analysis and presentation of vital statistics data (Utah State Department of Social Services, Division of Health, 1975).

Community Health Services. Within this agency lies the coordination of the local health districts through the Bureau of Local Health Service and through Community Health Education. These agencies are responsible for organizing, staffing, training, funding, programming and relating the district health departments to other local and State agencies (Utah State Department of Social Services, Division of Health, 1975).

Bureau of Disease Prevention. The Bureau has the goal of prevention and control of many of the communicable diseases and curtailment of disease effects (Utah State Department of Social Services, Division of Health, 1975). Activities include epidemiological and case studies, mass screening and immunization programs, and education of the public.

Bureau of Environmental Health--Bureau of General Sanitation. The General Sanitation Section programs are directed toward the prevention of breakdown in methods and procedures which could result in hazards to human health in the following general areas: food service; plumbing; private water supply and wastewater disposal; public swimming pools and bathing areas; subdivision development; sanitation of transient facilities which includes camps, trailer courts, hotels, motels, and resorts; public buildings including

schools; migrant labor, nuisance complaints; and vector control. It cooperates with other sections and bureaus in the conduct of epidemiological surveys and data management. This Section is responsible for providing technical assistance and consultation for local health department staffs for the promotion, interpretation, and enforcement of uniform codes and standard for the adequate protection of the environment. In addition, spot checks of local activity are periodically made by the State staff (State of Utah, Department of Social Services, Division of Health, 1975).

Bureau of Air Quality. The Bureau is to promote a quality of air that is not harmful to man, animals and vegetation, and does not create a nuisance; to control man-made pollution so it will not cause restricted visibility and other undesirable aesthetic effects. Their activities include review and evaluation of new developments in the fields of pollution control technology, health effects of pollutants, enforcement procedures and pollution engineering. They are: to maintain, expand, and upgrade the ambient air monitoring system throughout the State; to review plans and specifications of proposed development which may affect air quality; to cooperate with local, State and federal agencies in promulgation, implementation and enforcement of regulations; to revise the State Implementation Plan as need arises; to maintain an active public information and education program (Utah State Department of Social Services, Division of Health, 1973, 1975).

Bureau of Water Quality. This Bureau is divided into two sections, the Water Pollution Control Section and the Public Water Supplies Section. The responsibilities of the Water Pollution Control Section are to maintain, enhance and upgrade the quality of all waters of the State as required by the water classifications and standards adopted by the State. This will be accomplished through programs in the areas of basin and metropolitan planning, water quality criteria, water pollution control facilities, implementation schedules (mandatory operation and maintenance reporting, surveillance, enforcement), permit program, plans and specifications review, and public information. The water quality program is conducted to minimize human exposure to contaminated water and to conserve water for all beneficial uses in Utah. There are four major aspects of this program: domestic, agriculture, industrial, and recreation and conservation.

The Public Water Supplies Section is responsible for minimizing human exposure to contaminated culinary water and for conserving water for all beneficial uses in Utah. The objectives in domestic water use is to insure water which is both wholesome and palatable; free from bacterial, viral, and other microscopic agents as well as chemical agents which could result in disease. The State's long-term objectives for Public Water Supplies are to maintain and upgrade the municipal and small privately owned public water supply systems. This will be accomplished by a strengthened program in the areas of plan and specification review, technical assistance, public education

and information, monitoring, inspection, operation and maintenance reporting and operator training (Utah State Division of Health, Department of Social Services, 1973).

Bureau of Solid Waste Management. The solid waste management program protects the health of citizens and tourists within the State by establishing an efficient and economical approach to solid waste management to provide citizens with properly managed storage, collection, and disposal systems, and by protecting air, water, and land resources from degradation caused by improper solid waste management practices. Activities include: plan review for new sites; inspection of all sites; enforcement of State regulations (Code of Solid Waste Disposal Regulations); administering the Junk Automobile Disposal Program; hazardous waste disposal; resource recovery; inventory of industrial and agricultural disposal facilities; technical assistance to private, local, State, and federal agencies; manpower training; public information programs; development of a source reduction program; and evaluation of solid waste management and program effectiveness (Bureau of Solid Waste Management, Division of Health, Utah State Department of Social Services, 1976).

Bureau of Radiological/Occupational Health. There are two programs within this Bureau: the Occupational Health Program and the Radiological Health Program. The Occupational Health Program is charged with the investigation of health hazards or potential hazards resulting from substances, processes and working conditions in the occupational environment. Their

activities include conducting surveys, making recommendations for controls based on the limits defined by the State and Federal Occupational Safety and Health Standards, consulting with new industries moving into Utah to insure that employees will not be subjected to health hazards, and educational efforts to alert management and employees to potential health hazards. The Bureau is under contract with the Division of Occupational Safety and Health, under the Industrial Commission, to administer the occupational health aspects of the federal OSHA program.

The purpose of the Radiological Health Program is to protect the health and safety of the citizens of Utah by recognizing the essential uses of radiation and to reduce or prevent any unnecessary exposure to ionizing radiation, both naturally occurring and man-made. Surveys are conducted to determine exposure of employees, professionals and the general public to ionizing radiation from medical, dental, and industrial x-ray and recommendations are made to reduce that exposure to the lowest possible consistent with good radiographic procedures (State of Utah, Department of Social Services, Division of Health, 1973).

Bureau of Epidemiology. The Bureau conducts epidemiological studies which provide a base for decisions made by the Environmental Protection Agency. Studies also support the functions of agencies in the State Division of Health.

Within this Bureau there is a Health Effects Division which is charged with the collection of health effects data in support of environmental programs

for the Division of Health. It is involved in the study of real or potential effects of environmental pollutants on human health by epidemiological chemical and environmental investigations. Current programs include the Utah Epidemiologic Studies Project, which is related to pesticides, and the Chronic Respiratory Disease Study (Utah State Department of Social Services, Division of Health, 1975).

Department of Natural Resources

Source: State of Utah, Department of Finance, 1975)

Division of State Lands. The Division has responsibility to manage the lands granted to Utah by the United States and to administer Land Board policies. Programs include proper utilization of grazing and mineral lands plus soil conservation to improve the value of State lands.

Section of Forestry and Fire Control. The Division of State Lands contains a forestry and fire control section whose responsibilities are: protect private and public property in Utah by preventing the origin and spread of fire on State and private forest, range, and watershed lands, use proper conservation principals and provide technical assistance to private land owners in preserving, protecting and managing forest and other lands throughout Utah. The fire program is a cooperative effort between the State and counties in the prevention and suppression of fires which also involves training assistance and acquisition of local fire fighting equipment (State of Utah, Department of Finance, 1975).

Utah Outdoor Recreation Agency. This Agency is responsible for the preparation, maintenance and implementation of Utah's Comprehensive Outdoor Recreation Plan, which perpetuates the State's eligibility to participate in the Federal financial assistance program. The Agency reviews applications and determines priorities; conducts pre-project and project site inspections, program investigations, and pre-audits; controls the receipt, deposit and disbursement of Land and Water Conservation Fund Money of the Bureau of Outdoor Recreation, U.S. Department of Interior (State of Utah, Department of Finance, 1975).

Division of Geological and Mineral Survey. The Division is responsible to survey the geology and mineral occurrences of the State (including but not limited to, the ores of the various metals, all energy resources including geothermal, industrial raw materials, all mineral-bearing waters, and other surface and underground resources), to prepare reliable information in order to facilitate their economic utilization, and to investigate geologic hazards which could affect the safety of Utah's citizens (State of Utah, Department of Finance, 1975).

Division of Wildlife Resources. The Division has responsibility for protection of fish and game in Utah, for perpetuation of the traditional sports of hunting, fishing, trapping, while simultaneously providing for other--recreation, education, scientific, aesthetic, therapeutic, and economic--uses of all wildlife (State of Utah, Department of Finance, 1975).

Division of Parks and Recreation. The purpose of the Division is to acquire, designate, plan, establish, operate, control, develop, and maintain State parks, monuments, and recreational areas. Policies of the Division include: providing a safe and quality recreational experience for both residents and visitors; cooperation with federal, State, local and private recreation interests to meet and adequately provide for the growing recreation demand in the State; establishment of communications with the public to show that the enforcement programs on water and land are for the safety and well-being of the recreationist; and preservation of recreation opportunity for future generations (State of Utah, Department of Finance, 1975).

Division of Water Resources. The Division is in charge of planning, promotion, and development of State water resources including the surface and underground waters rising within the State, as well as waters of interstate streams of the Columbia, the Bear, and the Colorado River Basins. The responsibilities of this Agency are to: develop an overall State water plan; recommend priority for all water projects constructed in Utah by Federal and State agencies; negotiate with other state governments and the Federal government for rights to the use of interstate waters; manage a revolving fund for non-interest-bearing loans to local governments and water companies for construction or improvement of dams, pipelines, canals, and other water development projects; prepare water resource investigations, surveys, and studies of water needs; prepare plans and estimates; perform

periodic inspection of all projects and supervise cloud seeding and flood control programs (State of Utah, Department of Finance, 1975).

Division of Water Rights. The Division provides water administration for an orderly appropriation, apportionment, and distribution of surface and underground (including geothermal) water in the State; assists the State District Courts in the adjudication and determination of the water rights; enters into Federal-State cooperative agreements to collect basic data and make detailed investigations of water resources for proper administration; prevents waste, loss and pollution of the water; established water districts and defines boundaries; resolves county line disputes; and issues permits for stream alterations (State of Utah, Department of Finance, 1975).

Division of Provo-Jordan River Parkway. The programs of this Division relate to the Provo and Jordan Rivers and their development. The Division was created for the purpose of establishment and coordinating programs for the development of areas for recreation usage, flood control, reclamation, wildlife control, water conservation, restoration and preservation points of historical interest along the river system, and the regulation and control of other types of development (State of Utah, Department of Finance, 1975).

Department of Public Safety

This Department is responsible to ensure a greater measure of public safety and security for the citizens of Utah.

Safety Education and Promotion. The Agency is responsible for educating the driving public about safe driving practices, and acquiring pertinent information for dissemination to the public and to the State and local officials involved in special safety programs (State of Utah, Department of Finance, 1975).

Highway Safety Division. The Division is responsible for maintaining and administering an on-going plan for Highway Safety entitled Utah's Plan for Highway Safety (State of Utah, Department of Finance, 1975).

Department of Development Services

Division of Industrial Promotion. One of the prime goals of the Division is to attract "specific" industries to Utah, growth industries with minimal environmental impact and substantial positive influence on the Utah economy. Studies are conducted to identify these industries and to statistically prove that firms in those industrial categories can operate profitably within Utah. Data is published periodically in the categories of Community and County Profiles, Site and Building Inventory, and Utah Facts (State of Utah, Department of Finance, 1975).

Commerce and Labor Functions

Industrial Commission. The purpose of the Industrial Commission is to supervise every place of employment and to administer and enforce all laws for the protection of the life, health, safety and welfare of employees.

Division of Occupational Safety and Health. Utah has been granted a State Plan under both the Metal and Nonmetallic Mine Safety Act (all mines, mills, gravel pits, quarries, etc., except coal) and the Occupational Safety and Health Act (OSHA). With these two plans having been approved, Utah, through the Industrial Commission, has taken over the administration and enforcement of both of these Federal Acts. Currently, the occupational health aspects are contracted to the Bureau of Radiological Health and Occupational Health in the Division of Health (State of Utah, Department of Finance, 1975).

Department of Transportation

Office of Policy and Systems Planning. The duties of this Office encompass those functions that play a key role in the location and design of a highway. It has responsibility for all phases of a highway project from the time the project is programmed until a construction contract is awarded. Each contributes to the development of an efficient, safe and integrated system of highways in harmony with the natural environment and the social community through the consideration of environmental, social and ecological matters relating to the location and design of highway projects (State of Utah, Department of Finance, 1975).

Safety Section. Within the Safety Section there is Radiological Maintenance Unit. The Department of Transportation is charged by the federal government to maintain a monitoring system of their equipment, with trained monitors, to establish radiation levels and warn the public of these

levels and keep sections of highways open in case of nuclear attack of the U.S. The Safety Section is charged with this responsibility for the training of all monitors, of which we are to have a current 144 trained persons. The objective of the Safety Section is to provide the Department with an efficient safety program to eliminate human waste and suffering and reduce loss of human resources (State of Utah, Department of Finance, 1975).

Office of Pre-Construction. Within this Office is the Location and Environmental Studies Division. This Division conducts engineering and environmental studies on proposed highway projects (State of Utah, Department of Finance, 1975).

Administrative Services

Department of Systems Planning and Computing. The Department is organized to provide efficient and economical information systems and computing services for all agencies of State government (State of Utah, Department of Finance, 1975).

Regulatory functions

Department of Business Regulations--Recreational Vehicle Standards Division. The Division is responsible to promulgate and enforce certain minimum standards for mobile homes, travel trailers, and campers, regarding plumbing, heating and electrical systems (State of Utah, Department of Finance, 1975).

Utah State Department of Agriculture

Animal Industry Division. The Division administers various animal and poultry health programs, including meat and poultry inspection, brand recording and inspection, predatory animal control and other regulatory functions to service the animal industry economy of the State (State of Utah, Department of Finance, 1975).

Plant Industry Division. The Division supervises the services performed by the 11 agricultural district offices, which are responsible for the grading and inspection of vegetables, fruits, and other agricultural products, when required. It administers the State seed and nursery laws, and assists with pest control programs (contracted to University of Utah) and collects samples when requested for making analyses by the agricultural laboratories (State of Utah, Department of Finance, 1975).

Marketing and Consumer Services Division. This Division supervises the administration of a variety of laws dealing with marketing and consumer protection including the Food, Drug and Cosmetic Act, Cold Storage Act, Bedding and Upholstered Furniture Act, State Dairy Laws, and Poultry and Egg Grading and Labeling (State of Utah, Department of Finance, 1975).

Division of Agricultural Development. The Soil and Water Conservation Service within the Division serves as the State office for the State Soil Conservation Act and supervises 41 Soil Conservation Districts and Boards of Supervisors (State of Utah, Department of Finance, 1975).

Appendix B: Subsequent Investigation

The complex nature of environmental health planning opens several areas for further investigation and provokes many questions. Continuous collection and analysis of data and information is needed to identify the effects of the environment on man's health status. What are man's specific needs related to environmental components? To what degree does the environment enable man to reach his full potential?

A study of methods for public education to increase man's awareness of environmental effects on his mental, physical, and social health would be valuable to the environmental health planning process.

The role of an Utah state comprehensive health planning agency in environmental health planning needs further delineation by:

- 1) Defining State environmental health goals and objectives,
- 2) Determining the internal organization and management for an environmental health planning agency,
- 3) Identifying environmental health priorities,
- 4) Designating specific actions to be performed, and
- 5) Developing implementation techniques.

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