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AN EVALUATION OF LAND USE PLANNING  
WORKSHOPS HELD IN UTAH DURING 1973

by

Andrew C. Germanow

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

of

MASTER OF LANDSCAPE ARCHITECTURE

UTAH STATE UNIVERSITY  
Logan, Utah

1973

## ACKNOWLEDGMENTS

For the opportunity to continue my involvement with these workshops through this evaluation, my thanks to the Environment and Man Program and its director, Dr. Cyrus McKell.

The faculty of the Department of Landscape Architecture and Environmental Planning and fellow students have my appreciation for making my educational experience at Utah State more meaningful.

There are many others who deserve special thanks for their assistance. They include, Joan Shaw, Don Drage, and all of those who returned my questionnaire.

To Jacqui, thanks again.

Andrew C. Germanow

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## ABSTRACT

An Evaluation of Land Use Planning  
Workshops Held in Utah During 1973

by

Andrew C. Germanow, Master of Landscape Architecture

Utah State University, 1973

Major Professor: Craig Johnson

Department: Landscape Architecture and Environmental Planning

During 1973 a series of land use planning workshops for local officials and interested citizens was held in the multi-county planning districts of the state of Utah. The workshops were based on a planning process which had been used in Wasatch County, Utah, to develop the Heber Valley Plan. The emphasis of this process and of the workshops was the involvement of the citizens of the community in the planning process and the use of natural resource information as an additional basis for making planning decisions.

The evaluation includes a description of significant results of the Heber Valley Plan, events leading to a series of workshops, a typical workshop program, and activities which followed the workshops.

A questionnaire was sent to a sample of workshop participants in order to assess the response to the program. A content analysis was made of written comments on the returned questionnaires. A rating sheet was also prepared for use in evaluating or preparing educational literature for land use planning.

Results showed the workshops to be successful in creating awareness of the need for community input and the uses of natural resource information. They were less successful in providing "how to do it" type information.

Included in the Appendix are A Workbook on Land Use Planning, prepared specifically for these workshops, and The Heber Valley Story, also distributed at the workshops.

(131 pages)

## INTRODUCTION

### Background

A new awareness of the environment commenced on April 22, 1970, when millions of Americans took part in rallies, lectures and teach-ins in celebration of Earth Day (National School Public Relations Association, 1971). Since that time pollution control, ecology, and conservation have surfaced as major issues throughout the country.

An indication of this is the fact that between September, 1972, and September, 1973, barely a week has gone by in which a major Utah newspaper, The Salt Lake Tribune, has not published an article on an environmental issue. Most often these articles pertain to a Utah version of a national issue (Table 1) and are directly related to some of the major components of Utah's economy--agriculture, mineral extraction, and tourism (Table 2). A listing of these issues includes:

- 1) Allowing the level of Lake Powell, which backs up behind the Glen Canyon Dam, to reach maximum capacity and enter the Rainbow Bridge National Monument.
- 2) The Environmental Protection Agency's proposed air pollution control guidelines for Salt Lake City.
- 3) The impact of intensive recreation development in the canyons which are the source of Salt Lake City's water supply.
- 4) Land use and water pollution control in and around Bear Lake.
- 5) The extraction of oil shale deposits in eastern Utah.



Table 1. Matrix--Utah environmental issues and national environmental issues

	Air Pollution	Water Pollution	Land Use	Energy
Rainbow Bridge/Lake Powell			X	X
Air pollution control guidelines	X			
Mountain recreation development		X	X	
Bear Lake		X	X	
Oil shale	X	X	X	X
Kaiparowitz power project	X		X	X
Land use legislation SB 130			X	
Central Utah Project		X	X	
Energy crisis and gasoline shortage				X
Local planning and zoning issues		X	X	

Table 2. Matrix--Utah environmental issues and components of Utah's economy

	Agriculture	Tourism	Mineral Extraction
Rainbow Bridge/Lake Powell		X	
Air pollution control guidelines	X	X	X
Mountain recreation development		X	
Bear Lake	X	X	
Oil shale			X
Kaiparowitz power project		X	X
Land use legislation SB 130	X	X	X
Central Utah Project	X	X	
Energy crisis and gasoline shortage	X	X	X
Local planning and zoning issues	X	X	

- 6) The construction of the proposed Kaiparowits Power Plant near the Glen Canyon National Recreation Area.
- 7) The Central Utah Project; and the use, distribution, and transport of water from the Uinta Basin to the Wasatch Front.
- 8) The energy crisis and gasoline shortage.
- 9) Senate Bill 130 of the Utah State Legislature; a state land use law.
- 10) Numerous local planning and zoning issues involving subdivisions, commercial shopping centers, and strip development.

These environmental issues were the backdrop for the series of land use planning workshops held throughout Utah in the early months of 1973. They are controversial issues in that they affect Utah's economy and natural beauty.

Officials at every level of government must have a thorough understanding of the issues related to land use and of the controversies which arise from them if they are to make responsible decisions satisfactory to special interest groups as well as the public interest. A workshop is a particularly useful format for presenting information that will increase understanding of land use issues and provides a forum for the airing of viewpoints about these issues.

#### Origin of the Study

A series of workshops on land use planning was held in each of the seven multi-county planning regions in the state of Utah in early 1973. The financial support for these workshops was provided by Utah State University's Rockefeller Foundation financed Environment and Man Program,

and the State of Utah Department of Community Affairs, Division of Inter-governmental Personnel Services. In addition, the Utah Rural Development Committee and the Soil Conservation Service were sponsors of the program. Also cooperating with this venture were the Wasatch County Commission, the Utah State Planning Coordinator's Office, the Utah Association of County Commissioners and the Utah League of Cities and Towns (Environment and Man, 1973a).

The objective of these workshops was: 1) to train local leaders to identify their planning problems, 2) to determine what natural resource information such problems require for solution, 3) to identify the available natural resource technicians at a state, federal, or private level who can assist in developing the needed resource information, 4) to show how to evaluate data, and develop criteria for decision making (Environment and Man, 1972b). The participants at the workshops included local elected officials, members of appointed citizen boards, commissioners, local government employees, interested citizens, and employees of state and federal agencies which have an interest in the problems of land use and natural resources. The format of information presented and discussed at the workshops followed that of a workbook (Appendix E) which the author of this report helped to prepare.

The information presented in the workshops and Workbook follows a planning process used to develop the Heber Valley plan. In Heber Valley the involvement of local citizens and cooperation between various resource professionals of state and federal agencies in developing and interpreting natural resource information merged to develop guidelines for land use decision making in Wasatch County, Utah. Workbook

activities prompted discussions which focus on a set of hypothetical land use problems typical to Utah valleys and emphasize the need to involve the people of a community in the planning process as well as the ways a natural resource inventory can be used in making planning decisions (Figure 1). The discussion of these problems follows steps in the planning process used in Heber Valley (Figure 2). These steps include:

- 1) Defining the problem.
- 2) Gathering information about the goals, expectations and values of the members of the community.
- 3) Gathering information about the natural resources of the community, including the identification of the experts and agencies who have access to this information.
- 4) Discussions using plastic overlays representing natural resource data, of how this information can be used to help solve the hypothetical land use problems.
- 5) A summary of the legal framework within which land use planning takes place.

The workshops were conducted by a teaching team that included representatives from the social sciences, natural sciences, and government. Among them were:

Dr. Cyrus McKell, Director of the Environment and Man Program and  
Professor of Range Science at Utah State University

Lyman Smart, Director, Intergovernmental Personnel Services, Utah  
State Department of Community Affairs

Dr. Wesley Maughn, Professor of Sociology and Director of the  
Community Service Center, USU Extension Service

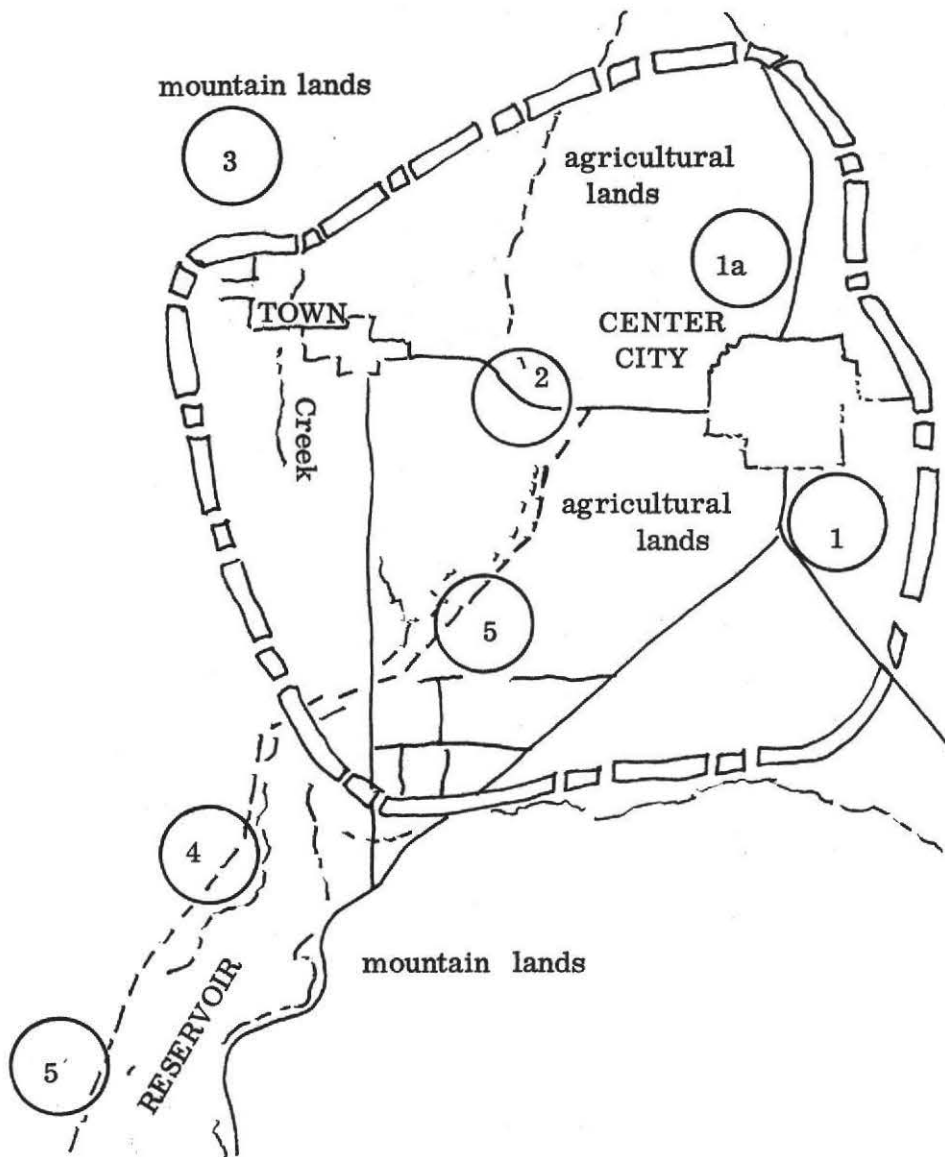


Figure 1. Hypothetical land use problems from the Workbook which were used as the basis for discussions during the workshops.

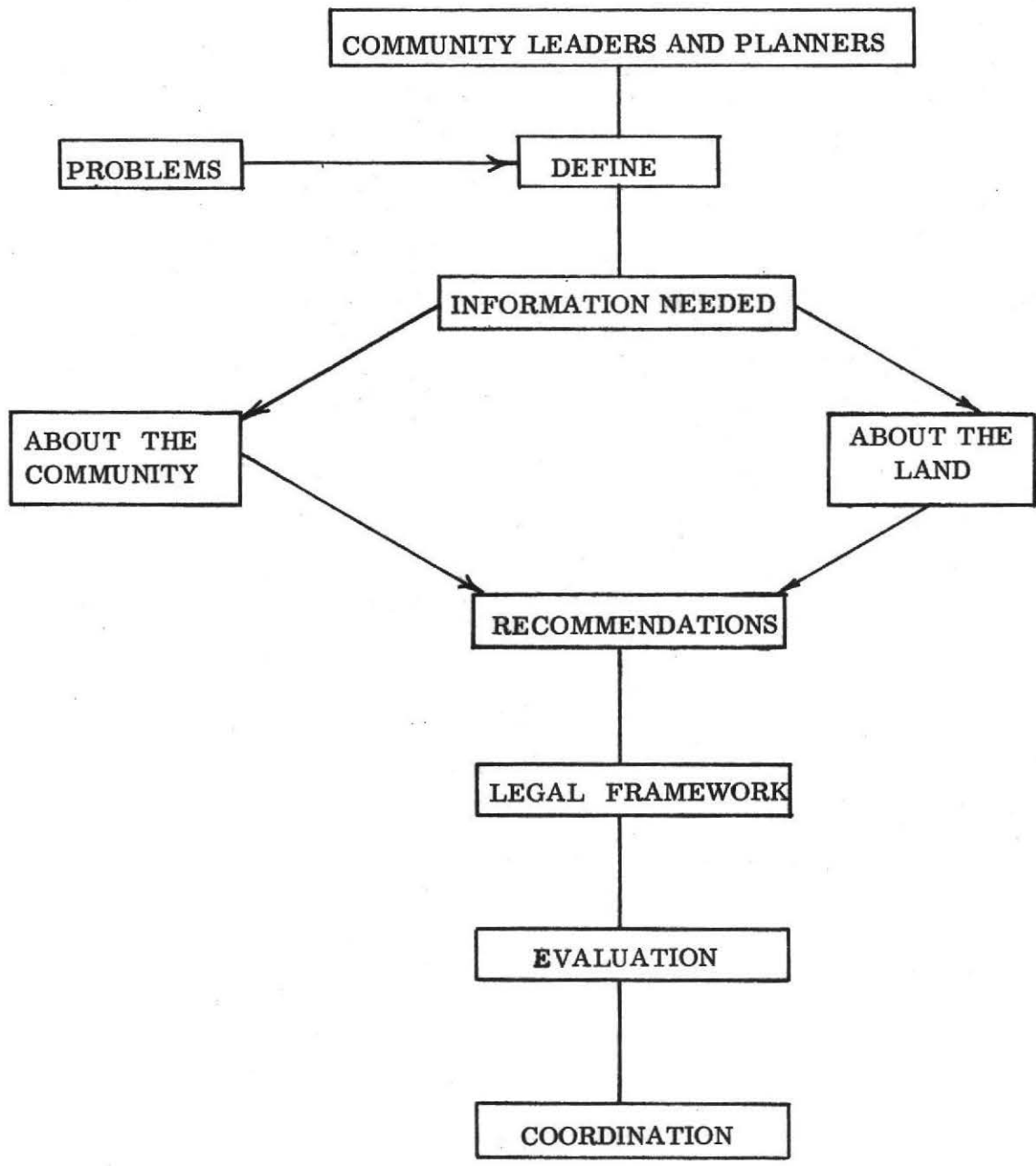


Figure 2. Planning process as shown in the Workbook.

Don Drage, Resource Conservationist with the Soil Conservation Service. Previously he had worked with the people of Wasatch County in the development of the Heber Valley plan.

Lee Kapolowski, Environmental Coordinator, Utah State Planning Coordinator's Office

Don Grimsley, Lawyer and Assistant Director, Environment and Man Program, Utah State University.

Also giving a presentation at each workshop was a professional planner who had worked on a comprehensive plan in the area as well as a representative from the Forest Service, the Bureau of Land Management, or the Soil Conservation Service. Each agency presented an explanation of the ways they use natural resource data to make land use decisions. At each workshop the executive director of the multi-county planning district and various county planners lead a discussion entitled "Where do we go from here?"

It was intended that this discussion would provide the basis for initiating a program of land use planning as a follow-up to the workshops. These follow-up activities are more fully explained in Chapter 4.

#### Problem Statement

Several bills now before Congress call for a national land use policy. These acts would enable the states to do planning review, leaving the vast majority of land use decisions with the local governments (New Republic, April 7, 1973).

The land use planning workshops are typical of the kind of educational effort which will be necessary in order to prepare local officials to responsibly make these decisions.

The purpose of this report is to evaluate how effectively this particular program was able to achieve its objectives. This experience may well provide lessons for other similar programs in the future.

### Objectives

The evaluation of this program of workshops will include:

- 1) A case history of the background, development, implementation and follow-up activities of these workshops, found in Chapters 3 and 4.
- 2) An analysis of the response of the participants to the workshops, in Chapter 5.
- 3) An analysis of the usefulness of The Workbook on Land Use Planning and The Heber Valley Story as teaching aids during the workshops and later as reference materials, also in Chapter 5.
- 4) A summary of the strengths and weaknesses of the overall program, and suggestions for ways similar programs might improve on this program, Chapter 2.

### Methods of Evaluation

The procedures used in meeting the objectives of this evaluation include:

- 1) Interviews with individuals who were actively involved in the planning and implementation of the workshops, including:
  - (a) Don Grimsley, Assistant Director, Environment and Man Program, Utah State University.



(b) Don Drage, Soil Conservation Service.

- 2) The author's personal notes of various meetings held in preparation for the workshops and observations of the workshops themselves.
- 3) The Environment and Man Program at Utah State University has on file various items of correspondence relating to the workshops and their follow-up.
- 4) A questionnaire was prepared and sent to a sample of the workshop participants.
- 5) A rating sheet was developed, using sources from planning, education, and public relations, to evaluate educational literature on land use planning.

## CONCLUSIONS

### Summary

One purpose of this report has been to evaluate how effectively the objectives for the land use planning workshops were achieved. The results of this evaluation indicate that the two primary ideas emphasized in the workshops were the ones which were most successfully achieved. They were the need to include the people of a community in the planning process and the usefulness of a natural resource inventory for land use planning. Other objectives such as locating professional assistance, defining problems, developing natural resource criteria and using it to help make land use decisions were much less favorably received by those who responded to the questionnaire.

Since the workshops were the first attempt at such an educational effort on land use planning in Utah, these results appear reasonable. Awareness of a problem must be created before there is any motivation to attempt to solve the problem. Most successfully achieved were awareness type objectives. Follow-up activities to the original seven workshops will no doubt better achieve the "how-to-do-it" type of objectives.

Two publications, The Workbook on Land Use Planning and The Heber Valley Story, were written especially for use during the workshops and as reference materials afterwards. It appears that they were useful aids during the workshops.

Although most of the respondents agreed that the literature was a useful reference source, only 10 percent of the respondents had referred to the Workbook more than five times, while 17 percent had shown or lent the materials to more than five other people.

A rating sheet developed to provide a basis for evaluating and comparing educational literature pertaining to land use planning was tested on a number of such pieces of literature. The materials written for the series of land use planning workshops in Utah ranked slightly higher than other materials read.

#### Recommendations

While one purpose of this report has been to evaluate the series of workshops, the other has been to suggest improvements that might be made in a future program of this nature. These recommendations are derived from the questionnaires, comments, and rating sheet results. They are not critiques of this particular program as much as they are things learned in the course of planning, preparing, and implementing the workshops.

#### Organization of the workshop

Although the organizational effort for these workshops was broad based and thorough, only 14 percent of those invited attended. Factors which might be considered in order to increase the turn-out would include:

- 1) Selecting a specific "target" participant group.
- 2) Choosing a location for the workshop that is less than an hour's drive for most of the "target" participant group.

- 3) Choosing a date and time for the workshop that is not likely to conflict with other commitments of the participants.
- 4) Including in the invitation specific information as to what the participants can expect to get out of the workshop.
- 5) Carefully considering the amount of time necessary for the workshop to achieve its objectives. The objectives of the Utah land use planning workshops that were most successfully achieved, those creating awareness, were covered in the morning session. It may well be that the most effective program exposure time is the first three hours of presentation.

#### The written materials

The rating sheet (Appendix C) will give an indication of what to look for when choosing literature for a program, or if material is written for a specific purpose.

#### Program presentation

The manner in which information is presented is as important as the content of that information. Among the items to consider when preparing for the presentation of a workshop are:

- 1) The pace of the program. Mornings can be an effective time to get much accomplished. The interest level of the activities immediately after lunch are most important. Some participants will tend to get sleepy after a meal.
- 2) Presentations should be brief and to the point. What a speaker is saying may be important; certainly it is to him; however, if

- he takes too long a time to say it, the audience is likely not to care.
- 3) The involvement of the participants at the workshop in the program is absolutely essential. Specific activities or discussion questions must be purposeful in order to be educational.
  - 4) Small group discussions may be more effectively focused and directed if there is a discussion leader at each table.
  - 5) In order for participants' activities to be meaningful and discussions fruitful, enough time must be allotted for them.
  - 6) Clarify for the participants what they can expect with regard to the day's program, and their role.
  - 7) The information presented and discussed should be clearly relevant to the local situation.
  - 8) By the end of the workshop participants should feel some sense of accomplishment. There should be some type of "output," or completion of some task.

#### Follow-up

The follow-up activities for the series of land use planning workshops, held in Utah in 1973, are still continuing. The initial workshop is the best place to launch any proposed follow-up. Items to consider in this regard are:

- 1) Suggestions and ideas for these follow-up activities can and should come from the participants at the workshops. "Where do we go from here?" type presentations led by a prepared local official can be an effective start to a follow-up program.

- 2) The follow-up can cover items not emphasized in the initial workshop.
- 3) The follow-up activities should be more skill oriented with more specific objectives.

### The evaluation

Evaluation should be an integral aspect of a program of this type from its inception. It is most important that objectives are developed which can be used later as measurable criteria. Too often decisions are made without considering the kinds of evaluative research which would be needed to sustain the worth of a program, and more importantly, what the reasonable alternatives are when evaluation indicates a program has failed (Rossi, 1971).

## BACKGROUND

### The Heber Valley Plan

The major stimuli for a series of land use planning workshops throughout the state of Utah were the activities of a group of citizens in Wasatch County, Utah. With the aid of a professional planner and state and federal natural resource agencies this group put together the "Heber Valley Plan."

Heber Valley is in a scenic mountain region located less than an hour's drive from the Salt Lake City area, the major population center in Utah. With fine fishing and hunting in the area, beautiful scenery, and the development of a major ski resort nearby, the valley became a haven for Utah's urban recreationists. The increasing popularity of the valley also made it a prime location for land speculators and developers of recreation second home communities. The potential change in the community from an agriculture to a recreation orientation raised some questions of concern among some of the local residents. The central issue was: If this development and growth are inevitable, how can we prevent the deterioration of the beauty and quality of life in our valley? (Berg and Drage, 1973)

At about this same time representatives of the Soil Conservation Service in Utah were discussing ways to help local government and planners gain a better understanding of the basic natural resource data available and their function in land use planning (Berg and Drage, 1973). The Heber Valley was suggested as a possible case study

area due to the growing pressures there for recreational development. The Wasatch County Commission, after agreeing to participate in such a study, cooperated with the Wasatch Soil Conservation District in preparing a proposal to be submitted to the Office of the Utah State Planning Coordinator. The purpose of the proposal was to find assistance for "the preparation of a basic natural resources inventory and guide, which would contain special interpretations of resource data that would be readily usable by [the] planning commission and others ... to assist with land use decisions." (Wall and Muir, 1971b) The State Planning Coordinator's office was asked to help the county in "obtaining the assistances of state and federal agencies" in order to make and interpret such a guide (Wall and Muir, 1971a).

This proposal called for coordination and cooperation among a number of state and federal agencies, universities, local governments and numerous officials. As the planning process was carried out, the proposal emphasized that it be "people oriented." This organization and progression of this process is described in The Heber Valley Story, Appendix E of this report. The results of these efforts were:

- 1) A "summary of goals and policies for Wasatch County, Utah."

Formulated by a group of 100 citizens, the document articulates goals and policies related to the quality of the living environment, safety and sanitation, economical and efficient growth, as well as the social and historical context of physical development, and employment opportunities (Despain, 1972).

- 2) A natural resources inventory and interpretation for land use planning. This work was done by a number of state and federal



natural resource agencies. Assistance and coordination was provided by the Merrill Library at Utah State University and the Department of Geography at the University of Utah (Drage, 1972).

- 3) A new zoning ordinance for Wasatch County, Utah. This document reflects the goals recommended by the citizens' group, and also requires that an "environmental impact statement" be submitted by land developers before a project gains approval (Salt Lake Tribune, 1972).

Results from the Heber Valley experience are significant in a number of ways.

- 1) Involvement of citizens in the planning process.

Sociologist Herbert J. Gans (1968) feels that community planning can be more effective if it meets the objectives of the residents. Psychologist Robert Sommers (1972) indicates that people must be aware that a situation is a problem before they are willing to do anything about that problem. He adds, however, that there is no point in making people aware of an environmental problem unless they are also given an opportunity to influence the situation. ✓

In Heber Valley the local problems of land use and their alternative solutions were presented to and discussed by an advisory council of 100 citizens (Despain, 1972). Natural resource information was also presented to the group and interpreted as it was relevant to land use problems and their resolution. During these discussions goals and policies for future growth evolved. Here, then, citizens were educated to the problems facing their community, discussed information relevant

to the solution of these problems, articulated their objectives for planning future community growth and saw a new zoning ordinance written and accepted which reflected their objectives (Salt Lake Tribune, 1972).

2) Cooperation of state and federal natural resource agencies.

In Utah 70 percent of the land is owned by the state or federal government (Nelson, 1956). The agencies which own, administer, and manage these lands have, over the years, made numerous studies of the various natural resources under their control. The Soil Conservation Service has also made a number of resource studies and interpretations for privately owned land.

The representatives of agencies which agreed to help in the Heber Valley Study (see Table 3) discussed not only ways they could help Heber Valley but also ways they could help each other to minimize duplication of effort and increase efficiency. The cooperation and planning that occurred in Heber Valley shows that it is possible for the efforts of a number of organizations to each bring its own special expertise to bear on a particular problem or goal.

3) The effort to make natural resource information understandable to the layman.

There is no point in excluding people from decision-making because they are ignorant; the most feasible alternative is to educate them (Sommer, 1972). In Heber Valley the natural resource information was interpreted so that the citizens' group could easily understand the problems, the issues, and the alternatives as they directly affected that group and their neighbors. This is exceedingly important since people generally do not take interest in the resolution of a problem

Table 3. List of organizations cooperating with the planning in  
Heber Valley, Utah

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---

Wasatch County Commission  
 Wasatch Soil Conservation District  
 Wasatch County Planning Board  
 Wasatch Council of Governments  
 Wasatch County Board of Health  
 Wasatch School District  
 Wasatch County School Board  
 Northeastern School Districts Curriculum Service Center

Mountainland Association of Governments

Utah Planning Coordinator  
 Utah Department of Community Affairs  
 Utah Department of Natural Resources  
 Utah Division of Environmental Health  
 Utah Division of Water Resources  
 Utah Forestry and Fire Control  
 Utah Park and Recreation Commission  
 Utah Highway Department  
 Utah Division of Wildlife Resources

Office of Utah State Superintendent of Public Instruction  
 Brigham Young University Center for Environmental Studies  
 Utah State University Extension Service  
 Utah State University Library  
 Utah State University Environment and Man Program  
 University of Utah

Soil Conservation Service  
 Forest Service  
 Bureau of Land Management  
 Bureau of Reclamation  
 United States Geological Survey

Central Utah Water Conservancy District  
 Neilsen and Maxwell, Consulting Engineers  
 I. Dale Despain, Consulting Planner

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unless it is clear how their own homes, children or jobs are directly affected (Gans, 1968).

- 4) The environmental impact statement as part of the new Wasatch County zoning ordinance.

The regulations now require any land developer in Wasatch County to submit a professionally prepared environmental statement prior to the approval of a project (Salt Lake Tribune, 1972). Among other things the statement must describe the impact of development on the natural features of the immediate area as well as measures that will be taken to control erosion, prevent fire, and dispose of liquid and solid waste (Berg and Drage, 1973).

It is significant that not only is the "fly by night" developer or land speculator discouraged but that the developer is forced to consider environmental problems and the cost of providing solutions to them, before he buys land or builds. In effect, he is being forced to be more responsible to the actual condition of the land as well as being responsive to its location.

#### The Development of a Series of Land Use Planning Workshops

As part of higher education's commitment to environmental awareness the Environment and Man program at Utah State University, operating under a three-year grant of \$600,000 from the Rockefeller Foundation had a number of objectives. One of these was a commitment to educational and action oriented public service programs related to the environment (Grimsley, 1973). This commitment nicely complimented one of the major functions of a land-grant college, "extension" of university personnel,

services, and facilities out into the state. At Utah State University, the Outreach program has an interest in the social and economic development of Utah communities as well as maintaining a continuing interest in the agricultural and natural resource aspects of Utah (Maughan, 1973).

As an expression of these objectives, the Environment and Man Program sponsored a series of colloquia on land use planning for the benefit of state and local officials as well as the university community. Don Drage of the Soil Conservation Service was attending these sessions at the time he was working on the Heber Valley Plan. At Drage's suggestion, the chairman of the Wasatch County Commission was invited to present a summary of the planning activities in Heber Valley during a colloquia session.

This presentation sparked the idea that a potential way to follow-up the colloquium might be a series of workshops on land use planning around the state at which the Heber Valley story would be told (McKell, 1972b). Dr. Cyrus McKell, Director of the Environment and Man Program, later discussed with Mr. Lyman Smart, Director of the Intergovernmental Personnel Agency (IPA) of the Utah State Department of Community Affairs, the possibility of cooperating in the development of "a training program for officials and employees of local governments in Utah relating to environmental problems, natural resource inventories and land use planning" (Smart, 1972).

A proposal to prepare the educational materials for such a training program was submitted to the IPA by McKell. The package of educational materials was to include two multi-media presentations, a curriculum for the training program, and a workbook on land use

planning for counties and cities, using the Heber Valley Plan as a case study (McKell, 1972a). The proposal was eventually funded through state and federal monies from Title VIII of the Housing and Urban Development Act of 1965 and the Intergovernmental Personnel Act of 1970. Matching funds were provided from Utah State University from the University Extension Service and the Environment and Man Program (McKell, 1972a).

A program was thus launched for a series of statewide educational meetings on land use planning. The next step was to prepare the educational materials and to contact the appropriate individuals in order to set up a workshop in each of the state's multi-county planning districts.

#### Written Materials

In September, 1972, a meeting was held in order to more fully outline the curriculum of the workshops and the content of the educational materials. Attending this meeting were:

Dale Berg - Wasatch County Planner.

Dr. Wesley Maughan - Professor of Sociology at Utah State and  
Director of the Community Service Center, USU Extension Service.

Don Drage - Resource Conservationist, Soil Conservation Service.

Lee Kaposloski - Environmental Coordinator, Utah State Planning  
Coordinator's Office.

Lyman Smart - Director, Intergovernmental Personnel Services, Utah  
State Department of Community Affairs.

Gerald Smith - Assistant Professor of Landscape Architecture and  
Environmental Planning, Utah State University.

Dr. Cyrus McKell - Professor of Range Science and Director of the Environment and Man Program at Utah State University.

Don Grimsley - Attorney and Assistant Director of Environment and Man Program at Utah State University.

Joan Shaw - Editor, College of Natural Resources, Utah State University.

Andrew Germanow - Graduate Student, Department of Landscape Architecture and Environmental Planning, Utah State University.

The discussions at this meeting centered around establishing a philosophy for the program and the approaches which could be used to best implement that philosophy. It was decided that the workshops ought to put forward a "positive" orientation toward the use of natural resource information for land use planning rather than to emphasize problems and dangers. It was felt that an acceptable approach would be to show how community goals can be used as a framework for developing guidelines and criteria for making policy decisions. Local elected officials would then have a basis for dealing with the various issues relevant to land use planning. This in essence was the approach which appeared to work so successfully in Heber Valley.

In order to implement this philosophy the program of the workshops would revolve around a workbook written especially for them, along with a "companion" booklet specifically describing what happened in Heber Valley. To emphasize their relationship, both books would follow a similar format and have similar covers and graphics. The Workbook would describe what could be done and why, while the Heber Valley Story

would describe what happened and how. It was intended that these materials would:

- 1) Be adaptable to the various regions of the state where the workshop would be held.
- 2) Be useful as planning reference materials for local officials.
- 3) Help to identify and clarify the various agencies and state laws related to land use planning.
- 4) Emphasize the need to incorporate natural resource data into existing comprehensive plans.
- 5) Stimulate the participants at the workshops to discuss a "typical" land use problem in light of a particular local situation.
- 6) Emphasize the importance of involving the people of a community in the planning process.

By early October a draft of the Workbook had been completed and copies sent for criticism to those who had attended the September meeting (Environment and Man, 1972a). Other individuals at the University who were experienced with educational materials or land use planning were also asked to critique the draft. During October and November frequent meetings resulted in a series of re-writes, reviews, critiques and revisions.

Work on the Heber Valley Story proceeded at about the same schedule, and followed a similar pattern of review and revision.

By the end of November final drafts of the Workbook and the Heber Valley Story were ready to be used at the first workshop, held in Brigham City for the Bear River Association of Governments. Some



revisions in format and organization were made in the Workbook after the Brigham City workshop.

### Organizing the Workshops

Paralleling the preparation of materials for the workshops, contacts were made around the state in an effort to organize a schedule for the seven workshops. In each of the multi-county regions there were three levels of contact with local officials:

- 1) About two months prior to the first workshop, meetings were held with the executive director and chairman of each multi-county planning district along with the local university extension planning coordinators.
- 2) About three weeks prior to holding a workshop in one of the multi-county planning districts, members of the teaching team met with most county commissioners and local government leaders. The purpose and scope of the workshops were discussed at these meetings as were local land use problems.
- 3) Don Drage of the Soil Conservation Service met with natural resource professionals and planners in each district prior to the workshop in order to define likely follow-up activities for each area (Environment and Man, 1973a).

In all of these meetings, the typical problem encountered was a need to lend assurance that this would not be just another "one shot deal." There would be follow-up activities, and these activities would be focused according to the suggestions of the local officials. The role of the Environment and Man program, as co-sponsor, was clearly

defined and the credibility of the effort established by the fact that most of the groundwork was done by Grimsley, an attorney, and Drage of the Soil Conservation Service, a joint effort by the University and a natural resource agency (Grimsley, 1973).

## THE WORKSHOPS

### Locations

Between December, 1972, and March, 1973, a workshop on land use planning was held in each of Utah's seven multi-county planning districts. Figure 3 shows these and the site of the workshop in each district. Below is a listing of each workshop and the date it was held:

Bear River Association of Governments--

December 6, 1972, at Brigham City;

Five County Association of Governments--

January 24, 1973, at Cedar City;

Uintah Basin Association of Governments--

February 14, 1973, at Bottle Hollow Resort;

Mountainland Association of Governments--

February 21, 1973, at Park City;

Six County Commissioners Organization--

March 2, 1973, at Richfield;

Wasatch Front Regional Council--

March 12, 1973, at Farmington;

Southeastern Utah Association of Governments--

March 21, 1973, at Moab.

### Participants

Invited to these workshops were over 3000 people representing nearly every facet of Utah's communities. In general, they fit into

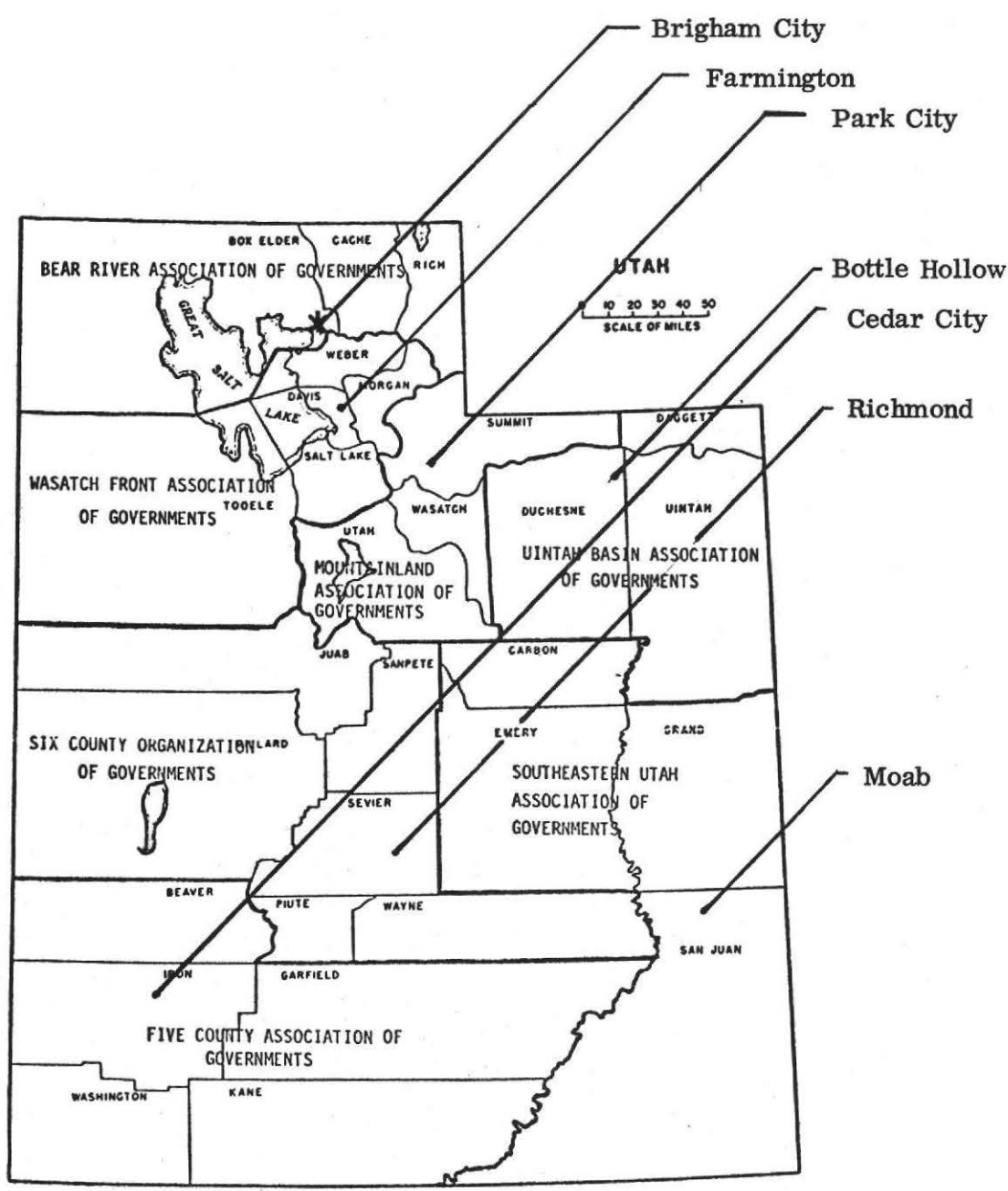


Figure 3. The multi-county planning districts of Utah, and the location of the land use planning workshop within each district.

one of three categories:

- 1) Agency: Associated with or employed by a state or federal agency concerned with natural resources, land use, health or economic development, and university extension representatives.
- 2) Local officials: Ranging from elected mayors, councilmen and commissioners to appointed city engineers, building inspectors and members of planning and zoning commissions.
- 3) Others: Representatives from service clubs, minority groups, environmental groups, farmers, real estate and development interests, news media and other groups likely to have an interest in the future of their community.

Since the seven invitation lists did not consistently describe a title for each individual invited, it was impossible to compare the different lists for varying percentages of agency, local official or others invited. The registration lists, however, do give a fairly accurate picture of who attended the workshops. Figure 4 shows comparatively the invitation and attendance at the workshops.

The percentage of those invited who actually attended (14 percent) can be attributed to the fact that the workshops were day-long on Wednesdays. Most of those invited are part-time officials employed elsewhere. Driving distance and weather conditions are also likely to have been factors. The fact that so many agency people were present (31 percent) is probably because such a meeting could be classified as part of their job. Many of those who attended were classified as "other" because they did not say on the registration form what organization they represented. It is interesting to note that the attendance

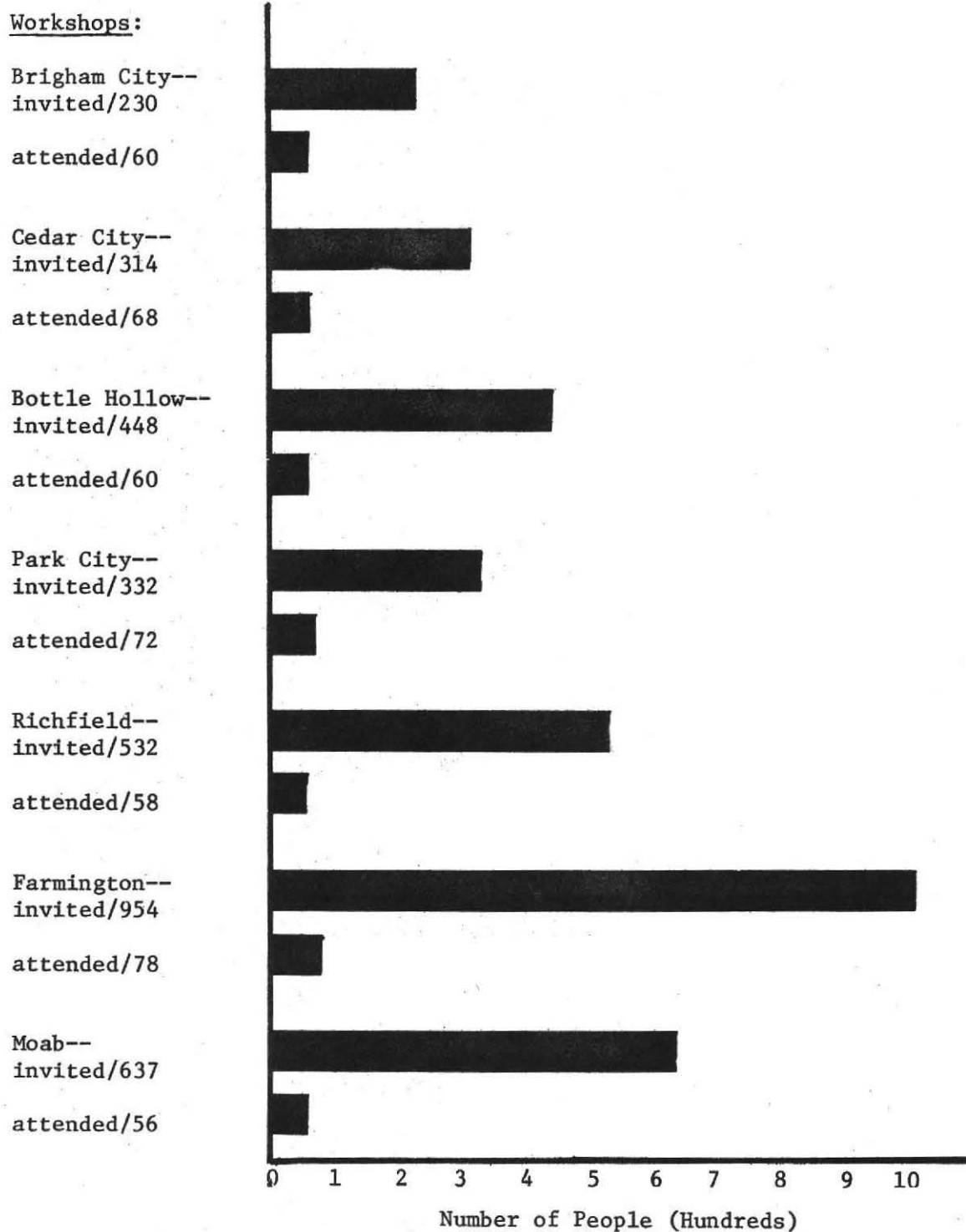


Figure 4. Comparison of invitations and attendance at land use planning workshops.

at the workshops remained fairly constant regardless of the size of the invitation list.

#### A Typical Workshop

The workshops were most often held in the meeting room of a restaurant in order to facilitate serving a hot lunch at noon. A public address system and lighting control were necessary for adequate presentation of the program. Table 13 (Appendix A) shows the checklist used for the materials taken to each workshop.

Tables were set up so that participants could easily focus attention either to the front of the meeting room or to their own table (Appendix A, Figure 22). This was necessary since the program at a workshop is essentially a series of presentations for the entire group followed by discussions at each table. An effort was made to encourage the participants to sit with people they were not familiar, in order for them to discuss issues with those whose viewpoints they had not already been exposed.

As the participants entered the meeting room they registered and were given a copy of the Workbook (Appendix E) and an agenda of the day's program. Typically the agenda included the following:

9:00 a.m. Welcome--

By an official well known in the multi-county planning district.

9:10 a.m. Introductions--

C.M. McKell, Director, Rockefeller Foundation-financed Environment and Man Program, USU.

9:15 a.m. Multi-Media Presentation--

"Land Use Planning in Sight and Sound."

This 40-minute slide and pre-recorded sound track presentation covers an ecological perspective of land use planning, the historical perspective for Utah, and introduces some basic concepts of planning and factors which affect decision-making.

Following this presentation the participants at each table discuss the relevance of the ideas they had just seen to their local situations.

9:45 a.m. Group Discussion: Defining problems and information needed about the community--

Wesley Maughan, Utah State University.

A general discussion of the types of conflicts land use planning attempts to resolve precedes a more specific discussion of five land use problems typical of Utah's communities (see Figure 1). The participants are asked to identify one or more of these problems with local situations and then to rank them according to the problem's urgency in their communities.

Once the problem is identified, information must be gathered that will be relevant to its solution. One important set of information pertains to the community; the way elected officials and citizens can be involved in the planning process, defining community goals, the role of the local mass media, and the need for continuous input by citizens representing various interest groups in the community. The participants discuss the ways different interest groups in their community are affected by the land use problem they previously ranked as most urgent. Each individual at a table is asked to represent the views of a



particular interest group in the discussion of a number of issues related to land use.

10:30 a.m. Break.

11:00 a.m. Group Discussion: Information needed about the land--  
C.M. McKell.

The natural resources which make up the landscape are also emphasized in the workshops. Groundwater recharge areas, fault zones, marshes and other types of natural resource hazards and sensitive areas are discussed. A composite diagram is used to show how these interrelate (Figure 5). The participants discuss the need to protect or respect these factors for different types of development. A discussion of the land use problem listed as most urgent is also undertaken along these lines.

11:20 a.m. Group Discussion: How do resource professionals help?--  
Don Drage, Soil Conservation Service, with a professional planner.

The way state and federal agencies can be useful in providing information and interpretations, and how their services may be requested, is an important part of this section. An example of the way a soil survey can be used is described.

The various services that a professional planner can provide is demonstrated by examples of work which may recently have been done in the district.

12:00 noon Lunch.

1:30 p.m. Multi-Media Presentation: Heber Valley Story--  
Introduced by Don Drage.

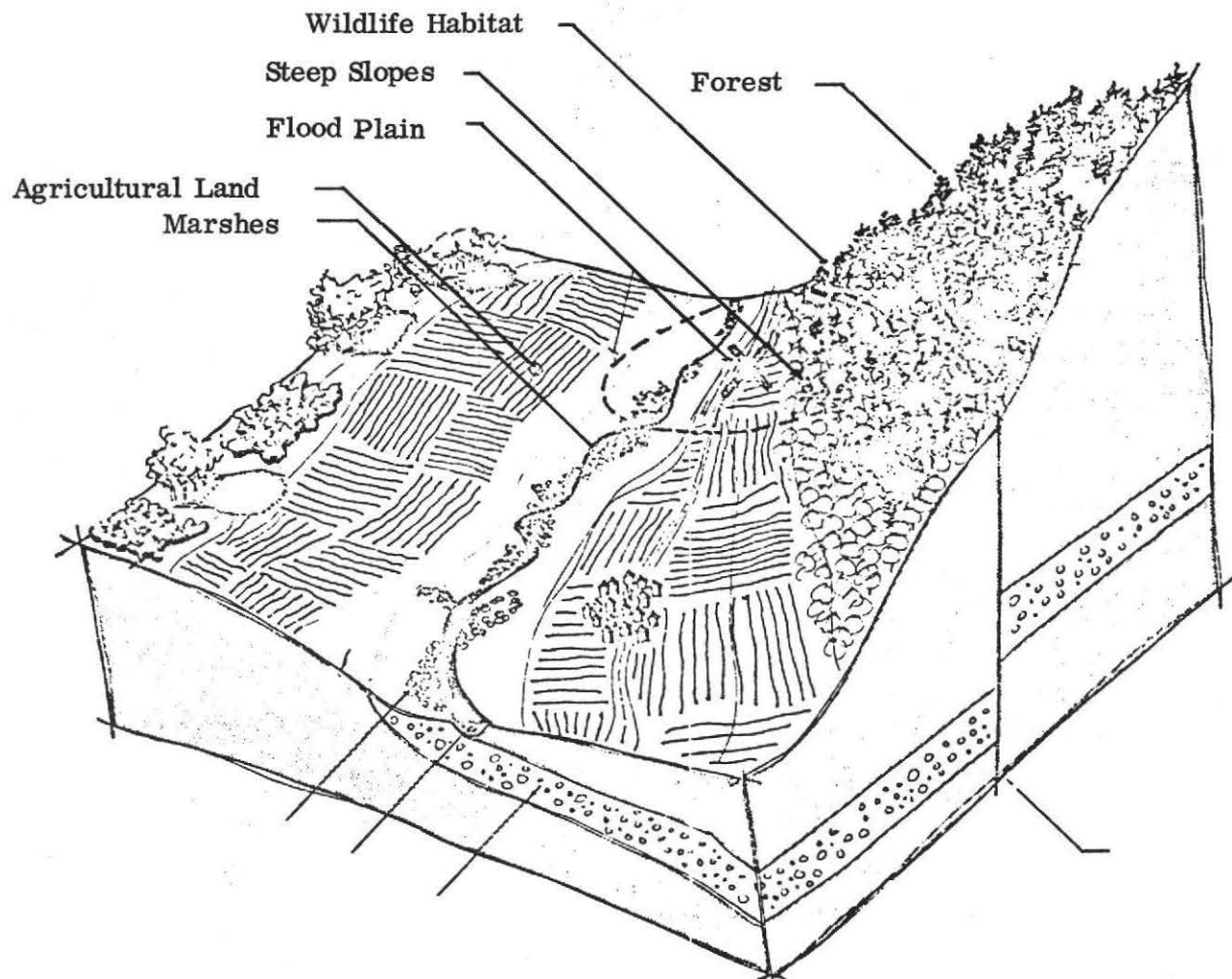


Figure 5. Composite diagram from Workbook showing sensitive and hazardous land use areas.

This 12-minute presentation shows the organization, efforts and results of the citizen's group in Heber Valley as they created a land use plan for their valley.

1:50 p.m.     Group Discussion: Land use problem solving activity--  
                  C.M. McKell.

After a review of information presented earlier in the day, four plastic overlays (see Appendix E) of natural resource information are used with the map in Figure 1 to stimulate discussion as to the ways this information can be used to better evaluate a proposed land use.

2:30 p.m.     Group Discussion: Legal framework and proposed  
                  legislation--  
                  Don Grimsley, Utah State University.

A brief presentation of the legal context of land use planning in Utah is accompanied by the current status of a number of land use related bills in the Utah State Legislature.

3:00 p.m.     Break.

3:30 p.m.     Group Discussion: Where do we go from here?--  
                  Led by the Executive Director, Association of  
                  Governments.

In a discussion led by the Executive Director of the local Association of Governments a number of suggestions for ways to follow-up the workshop are discussed.

4:00 p.m.     Adjournment.

### Follow-up Activities

Since the first round of seven workshops, there have been numerous follow-up activities. The Environment and Man Program has been directly involved in some of these; others are spin-offs from the workshops in the various multi-county planning districts in the state.

Follow-up which has directly involved the Environment and Man Program includes:

- 1) A land use planning workshop on mountain canyons at Snowbird, Utah, sponsored jointly by the Environment and Man Program and the Utah Environmental Center. This workshop was attended by about 70 people representing the various viewpoints and interests regarding the intensity of recreational development in the mountain canyon watersheds which supply the Salt Lake City area. A general discussion of land use planning, community involvement, ways natural resource experts can be of help, and the Heber Valley story took place during the morning session, while the afternoon dealt specifically with land use in Little Cottonwood Canyon, and the policy implications for future canyon use that the results of a preliminary study of Little Cottonwood Canyon presented (Environment and Man and Utah Environment Center, 1973).
- 2) A summer of environmental education at Utah State comprising:
  - A 4-H Youth Community Environmental Improvement Conference. The Conference was designed to increase the participants' appreciation of their communities and the environment in

which they lived. Its purpose was to strengthen their general understanding of ecological principles and of the relationships which unite man and his environment (Conference and Institute Division, 1973).

- A vocational education workshop which identified appropriate job potentials for high school graduates in natural resources and environmental work. Interested teachers throughout the intermountain region were invited to attend (Conference and Institute Division, 1973).
  - Land use planning workshops for high school science and social studies teachers were held to provide information and techniques which can be used in teaching about land use problems. Following the workshops participants will hold training conferences in individual districts or regions throughout the state to familiarize other local school teachers with the opportunities for including land use problems in their areas as class projects (Conference and Institute Division, 1973).
- 3) The workshop on land use planning that was presented around the state was also presented to the Natural Resource Committee of the Utah State Legislature (Grimsley, 1973).
  - 4) McKell and Grimsley testified before the subcommittee on land use of the Natural Resources Committee of the Legislative Council of the Utah State Legislature regarding the series of land use planning workshops and the role Utah State University is prepared to assume in the effort to find solutions to land

use problems and conflicts confronting the citizens of Utah (McKell and Grimsley, 1973).

- 5) A land use planning training workshop was held at Utah State University for executive directors of multi-county planning districts, USU Extension agents and representatives of the Soil Conservation Service. This workshop was designed to familiarize multi-county planning districts with the type of assistance that is available from the University and natural resource agencies for local land use planning efforts. Extension agents and Soil Conservation Service personnel were not being trained as planners but to learn how their expertise may be used in local planning projects (Environment and Man, 1973b).
- 6) A land use planning workshop was held in order to focus on the problems facing the Bear Lake Region. The day following this workshop, a meeting of the Bear Lake Regional Commission was held, attended by the governors of Utah and Idaho and representatives of all governmental entities whose jurisdiction borders the lake. Various state and federal officials and interested citizens also attended (Salt Lake Tribune, 1973).
- 7) A new staff member was hired to work through the Department of Landscape Architecture and Environmental Planning at Utah State University with the Environment and Man Program and the USU Extension Service.
- 8) Merrill Library at Utah State University is developing a program which will provide for the collection, organization and

subsequent availability of natural resources data for evaluation by land users, planners and elected officials (Wooley, 1973).

Following-up the Workshops in the  
Multi-County Planning Districts

The "where do we go from here" segment of the workshop provided the executive director of a multi-county association of governments with some suggestions which could serve as the basis for initiating a number of land use planning activities. Since many local officials did not attend the workshops, and though the program probably did help to increase awareness of the need for land use planning among those who did attend, a gap still remained between that awareness and an understanding of how to generate a particular action.

Three remedies were applied to close the gap: (1) A training program for executive directors of multi-county associations of governments, for Utah State Extension Service personnel, and for local Soil Conservation Service representatives; (2) the formation of a technical coordinating team to assist with the initiation of a planning project within a multi-county area; and (3) an intensive series of meetings in each of the districts to further persuade local officials of the necessity and value of land use planning. The last of these has probably been the most effective tool for generating action. Experience has shown that there is no substitute for one-to-one interaction (Drage, 1973b).

The training sessions introduced the participants to the kinds and sources of available assistance (Environment and Man, 1973b):

- 1) Environment and Man Program, Utah State University
  - Coordination of USU input including research and training programs.
- 2) Merrill Library, Utah State University
  - Natural resource data depository, data base network and control system.
- 3) Utah State University, Landscape Architect Extension Specialist
  - Landscape inventories, visual assessments and planning assistance.
- 4) Utah State University, Community Development Extension Specialist
  - Community development services and human relations and cultural refinement.
- 5) Local designated USU Extension Agents
  - Local leadership coordination, informational programs on local level.
- 6) Soil Conservation Service, Utah State University, and other resource agencies
  - Problem area analysis; natural resource inventory and evaluation; data interpretation and display; work outlines.

Most of the multi-county associations of governments are currently working through a process of planning as a local learn-by-doing experience. The steps in this process include (Environment and Man, 1973b):

- 1) Establishing an association of governments policy on land use-natural resource planning.
- 2) Identifying an area within the district that, due to various pressures for development, make it a good local case study project.



- 3) A "situational analysis" of the apparent goals, needs, and problems is made of the case study area by local resource technicians and then reworked by local officials.
- 4) A work outline or plan of operation is established to allocate responsibilities and time.
- 5) Soon after a case study area has been selected, work begins on compiling a bibliographic listing of all plans and studies which pertain to a multi-county district. After a work outline is established, actual preparations of base maps, overlays, and other working materials is begun.
- 6) A workshop to involve local citizens.
- 7) The natural resource inventory and the final evaluation of the land use problem area is completed until it is updated.

By early September, 1973, the intensive round of follow-up meetings had produced the results (Figure 6) listed below (Drage, 1973b):

- 1) Five County Association of Governments--
  - \* The Kanab Watershed Area has been chosen as the priority study area.
  - \* Local commissioners are reviewing and revising the situational analysis and beginning to prepare a plan of operation.
- 2) Uintah Basin Association of Governments--
  - \* The Ashley Valley (Vernal-Maeser Area) has been selected for study.
  - \* Here the "situational analysis" prepared by a technical advisory committee is being re-written by local commissioners to more accurately reflect the local situation.

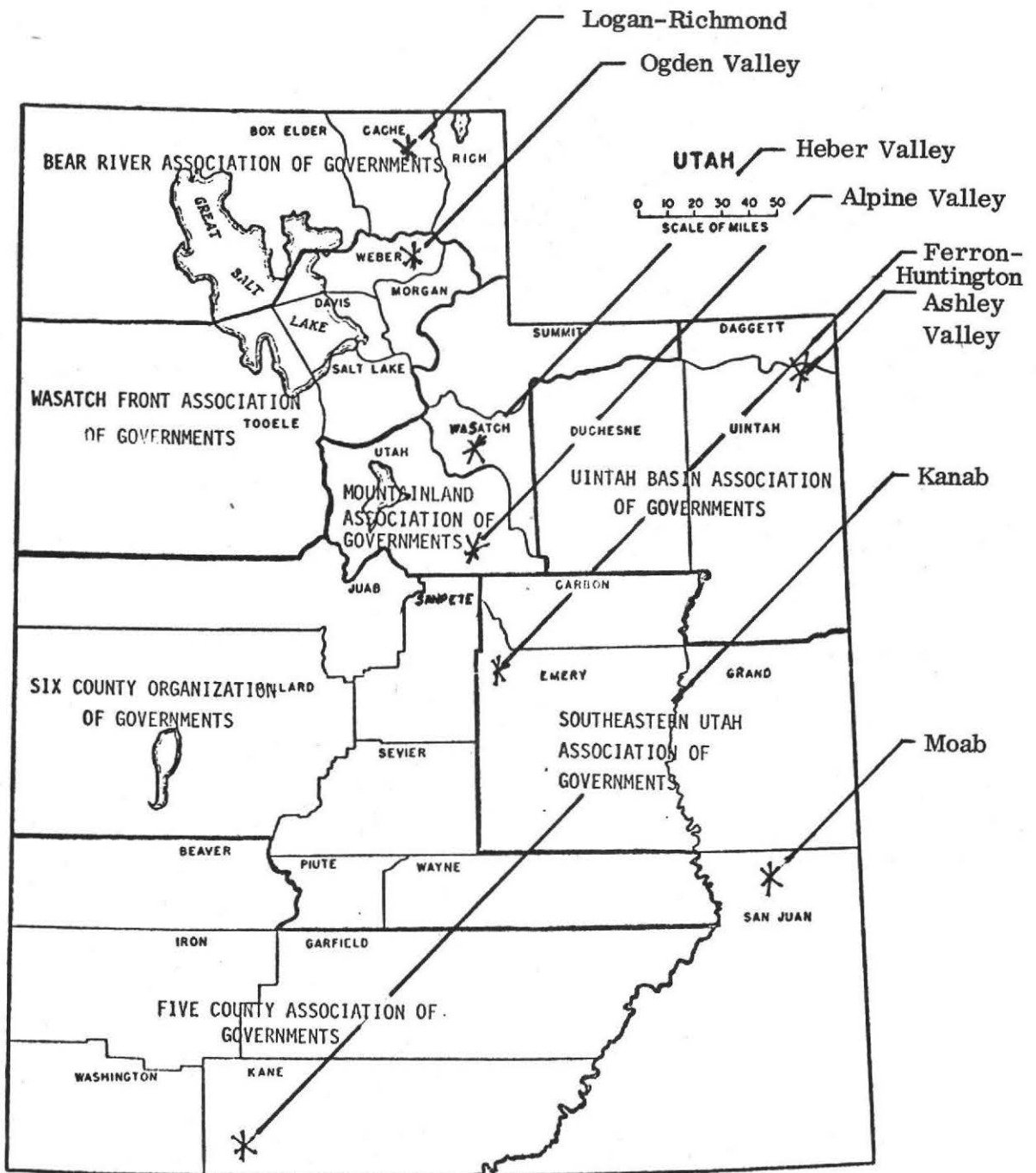


Figure 6. Location of case study areas.

## 3) Southeastern Utah Association of Governments--

- The Ferron-Huntington Valley Area has been selected for study because of the power plant being constructed there. A local technical coordinating team composed of representatives of various natural resource agencies has begun a preliminary "situational analysis."
- The Moab-Spanish Fork has been identified as another likely study area.

## 4) Mountainlands Association of Governments--

- The information collected for use in making the Heber Valley Plan has since been used in the writing of three environmental statements (Drage, 1973b).
- The Planning Commission of Alpine Valley requested that a land use study be made of their valley. A citizens group representing a broad cross-section of the community recently met with the Soil Conservation Service to discuss initiating such an effort. This is the only group that has initiated a request for a study to be made of their area.

## 5) Six-County Association of Governments--

- It is likely that a case study area will not be chosen until an H.U.D. planning position vacancy is filled.

## 6) Wasatch Front Regional Council--

- The case study area here is the Ogden Valley. Work had begun prior to the workshop and has reached the point of preparing working materials.

7) Bear River Association of Governments--

- ' The Logan-Richmond Area east of the Bear River has been chosen for study. Base maps and other working materials are currently being prepared.

## EVALUATION OF THE PROGRAM

The "heart" of evaluative research is the determination of whether a planned activity--in this case a series of land use planning workshops--has achieved its planned objectives, and an elaboration of how or why the activity was able to achieve these objectives (Suchman, 1971).

In order to determine the extent to which this series of workshops achieved its objectives, a questionnaire was sent to a sample of the participants to provide additional insight into the evaluation. A content analysis was made of the questionnaire respondents' written comments. A rating sheet was also developed and tested as a method of comparing the materials written for these workshops with literature on land use planning distributed by the Extension divisions of other universities.

### The Questionnaire

#### Purpose

The intention of the questionnaire was to determine:

- 1) How successfully the objectives of the series of workshops were achieved.
- 2) If observations made at the workshops might be verified.
- 3) The utility of educational materials written for these workshops.
- 4) The success of the method of presenting information.
- 5) The receptivity of the respondents to the use of natural resource information in resolving land use conflicts.
- 6) The receptivity of the respondents to workshops of this type.

- 7) The receptivity of the respondents to the concept of respecting natural resources as their cities and towns grow.

### Method

The participants at the Cedar City, Park City and Richfield workshops were sent questionnaires four to five months after the workshop. These three groups were chosen as a sample because of different degrees of response, on the part of the multi-county associations, to initiatives encouraging land use planning in each area as part of the workshop follow-up (Drage, 1973a). Since the response of the five county area (Cedar City workshop) to these initiatives had been most positive, the Mountainlands Area (Park City Workshop) least positive, and the response of the Six County Association about average, it was felt that this sample would represent a cross-section of all the participants attending the workshops.

Due to the length of time which lapsed between the workshops and the mailing, a cover letter (Appendix B) was included which reviewed the program. The 22-item questionnaire (Appendix B) contained graphics reproduced from the workbook as an additional memory aid for the subjects. A stamped, return addressed envelope was included in the June mailing. In July a follow-up mailing was sent out with a different cover letter (Appendix B) and a return addressed envelope without a stamp.

Those receiving a questionnaire were asked to react to each item according to the strength of their agreement with that statement. The choices were: strongly agree, agree, no opinion, disagree, or strongly

disagree. Responses were coded according to how favorable they are to the attitude being measured. In the case of this particular questionnaire, the attitude being measured was the respondent's response to a land use planning workshop. The higher the score received on a particular question would indicate a more favorable response toward the workshop and the concepts discussed at it. Below is an example of three questions and the way responses to them were coded.

	Strongly Agree	Agree	No Opinion	Dis- agree	Strongly Disagree
7. I was able to identify one of these land use problems with a situation in my own community. Comment:	<u>(5)</u>	<u>(4)</u>	<u>(3)</u>	<u>(2)</u>	<u>(1)</u>
9. The group at my table was able to focus clearly on the topic under discussion. Comment:	<u>(5)</u>	<u>(4)</u>	<u>(3)</u>	<u>(2)</u>	<u>(1)</u>
18. There is so much in the news about the environment that workshops like this aren't needed. Comment:	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>

The numbers under each position do not appear on the questionnaire given to the subjects.

On a summated or Likert-type scale of this type, the total score of responses to all items represents an individual's position on a scale of favorable to unfavorable toward the attitude being measured. Likewise, the scores of a selected group of respondents to a series of items on the questionnaire may be ranked from high to low, giving each item a position on a scale ranging from favorable to less favorable. The higher an item ranks on the scale, the more favorable is the group's response to that item.

In the case of this questionnaire, individuals were aggregated into a number of groups (all respondents, Park City Workshop respondents, respondents whose overall reaction to the workshop was good, and others). The group scores on each item in a set of items were totaled and ranked according to which received more favorable responses--the sets of items related to the program activities, to the written materials and to the objectives of the workshops as well as some general questions dealing with concepts discussed during the workshops. These rankings could then be used for comparison with other rankings of other sets of items in order to gain some insight into the response to the workshops.

#### Limitations

A general limitation of a Likert-type scale is that while it makes possible a ranking in terms of favorableness of an attitude toward a particular object, it does not provide the basis for saying how much more favorable one ranked item is over another (Selltitz et al., 1959).

Also, different patterns of response on a Likert-type scale may lead to identical scores. " ... however, pragmatically the scores on a Likert-type questionnaire often provide the basis for a rough ordering of people on the characteristic being measured." (Selltitz et al., 1959, p. 369)

Specific limitations of the results of this questionnaire might include the fact of a four to five month time lag between the workshops and the first mailing, as well as the fact that a 45 percent return of questionnaires may not be sufficient for some reviewers. However, it may well be that as a result of the time lag, the responses may reflect



strong impressions retained from the workshops. In light of this, it may be significant that almost half of those who received questionnaires were motivated enough to return them.

Since the questionnaire was not pre-tested the validity of the results may be considered suspect. However, this report, being an evaluation of a unique kind of program, may be considered a pre-test for future environmental education programs for land use planning. Even so, one measure of the validity of the results is that some observations made during the workshops were verified by responses to various items on the questionnaire. They will be discussed in the results portion of this section.

### Results

The return. Of the 177 questionnaires mailed, 79 or 44.6 percent were returned. Of this group, 74 were men, 43.6 percent employed by a state or federal agency, and 54.4 percent elected or appointed officials in their communities. Figure 7 shows the breakdown of respondents with respect to age, education, and distance driven to the workshop. Of particular note is the fact that nearly half of this group had to drive an hour or better to get to the workshop. An indication of the occupational diversity of those who attended the workshops is the listing in Table 4. A listing of the cross-section of local officials attending the programs is displayed in Table 5.

Objectives. In the planning stages of this series of workshops a number of objectives were articulated. One purpose of the questionnaire was to determine how well the participants at the workshops felt the

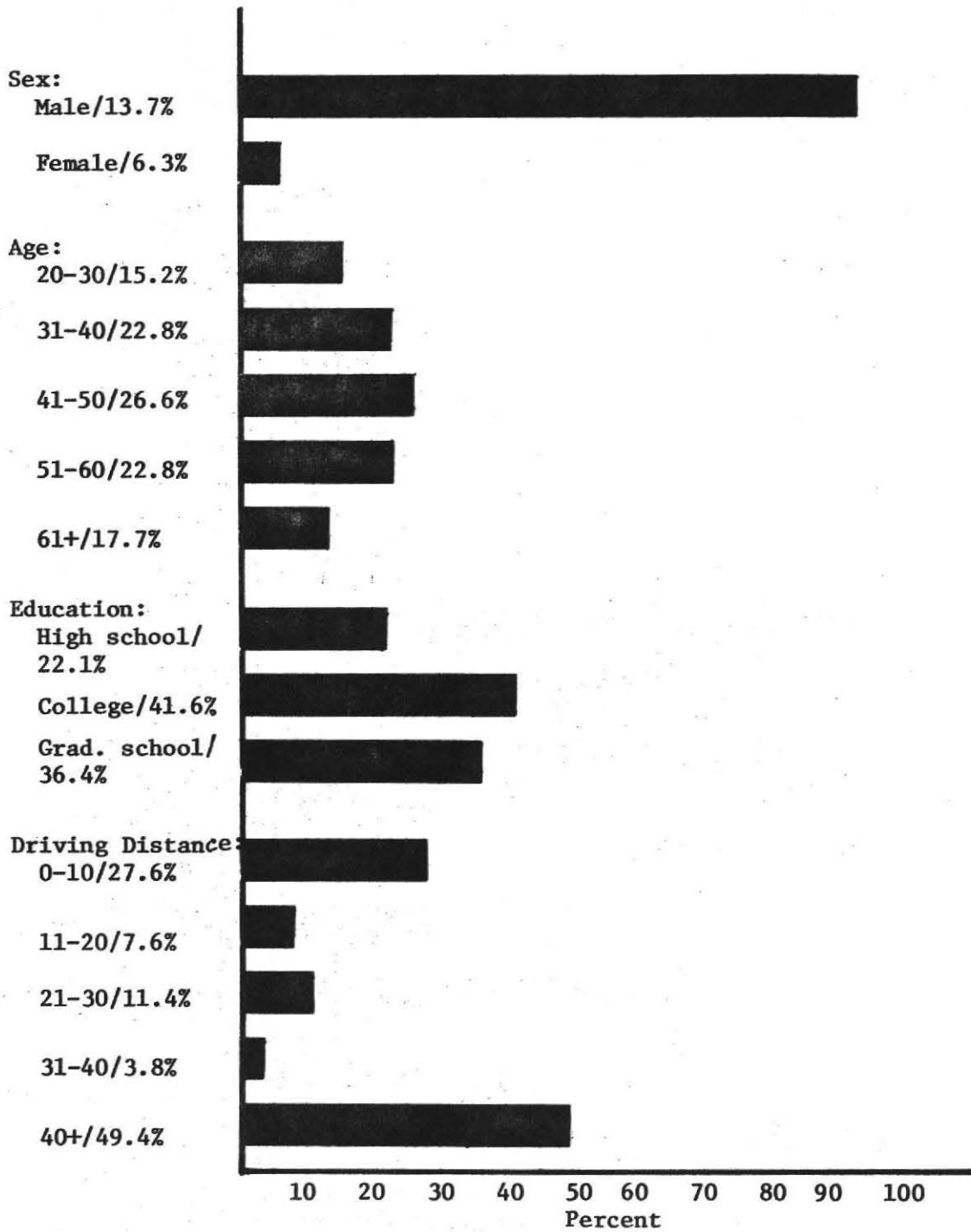


Figure 7. Demographic breakdown--all questionnaire respondents.

Table 4. Occupational diversity of respondents

Number	Occupation	Number	Occupation
	<u>Farming and Ranching</u>		<u>Natural Resources</u>
2	Dairy farmer	4	U.S. Forest Service
1	Area agronomist	2	District conservationist - SCS
6	Farmer-rancher	3	Soil conservation technician - SCS
1	Turkey producer	1	District conservationist - SCS
2	Farm supervisor	2	Resource conservationist - USDA
<u>12</u>		1	Planning coordinator - BLM
	<u>Business</u>	1	Area manager - BLM
1	Self employed	<u>14</u>	
1	Insurance		<u>Officials</u>
2	Real estate	3	Full-time elected officials
3	Retail store and service station	2	City manager
1	Public relations (for real estate and resort development)	2	Executive-director, Association of Governments
2	Motel and restaurant	1	County clerk
1	Building contractor	2	City assessor
<u>11</u>		1	Sanitarian
	<u>Planning</u>	2	Building inspector
3	Engineer	1	Manpower Administrator
3	Planning director	1	Farmers Home Administrator
1	Consulting planner	<u>15</u>	
1	Land use technician		
1	Planning assistant and research analyst		
3	Planner		
1	BLM-planning coordinator		
<u>13</u>			

Table 5. Officials, by title, who returned the questionnaire

Number	Title
<u>Elected Officials</u>	
8	County commissioner
2	City manager
1	County Clerk
2	Councilman
2	President, Town Board
1	Town board-member
2	County assessor
2	Mayor
1	Community chairman
<hr/> 21	
<u>Appointed Officials</u>	
2	Planning commission
3	Planning director
2	Executive director Association of Governments
3	Soil Conservation District position
1	Area agronomist
3	Chairman--planning and zoning commission
2	Zoning administration
1	FHA state committeeman
1	Planner
1	Sanitarian
1	Airport manager
2	Building inspector and engineer
<hr/> 22	
<u>Planning and Zoning</u>	
2	Planning commission
3	Planning director
3	Chairman, planning
2	Zoning administrator
1	Planner
1	Sanitarian
2	Building inspector and engineer
<hr/> 14	

objectives were achieved. These objectives become criteria by which the workshops are evaluated.

Items #14a-h on the questionnaire are these objectives (see Table 6). The subjects were asked to respond according to how well their attendance at the workshop helped them to identify, determine, understand, or evaluate information relative to the objectives of the workshop. Their response is exhibited in Figure 8. The ranking of these responses on a scale of most favorable to least favorable is shown in Table 6. This indicates that item #14g received the most favorable response and was the objective of the workshop which proved to be most helpful and therefore most successfully achieved. Item #14f, on the other hand, was least favorably received, was considered least helpful, and was, therefore, least successfully achieved.

This ranking can be compared with interest to the results of questions #15 and #16. Here the subjects were asked to choose the objective (#14a-h) they felt best described the purpose of the workshop and to rate how well they felt this purpose was accomplished. Figure 9 represents a ranking of objectives according to the order in which the respondents felt they best described the purpose of the workshop and how well the objective was achieved. It is obvious that the directions at this point in the questionnaire were not clear since 38 percent of the respondents did not single out a particular objective yet they did note a level of accomplishment on the next question. This response is assumed to pertain to the workshop as a whole rather than a single objective.

Table 6. All respondents, ranking of objectives of the workshop according to how attendance at the workshop helped respondents to identify, determine, understand, etc.

Ranking	Objectives
#1	#14g. Understand the importance of including the people in your community in the decision making process.
#2	#14b. Determine what natural resources information such planning problems require for solution.
#3	#14h. Understand how a natural resource inventory can be used as an aid in making land use decisions in your community.
#4	#14a. Identify your community's planning problems.
#5	#14e. Develop natural resource criteria to make land use decisions.
#6	#14c. Identify the available state, federal, or private natural resource technicians and planners who can assist in developing the needed base of natural resource information.
#7	#14d. Evaluate natural resource information as you make land use decisions.
#8	#14f. Understand a way to make decisions about where different types of human activities--agricultural, residential, commercial, industrial, and recreational can be placed on the land.

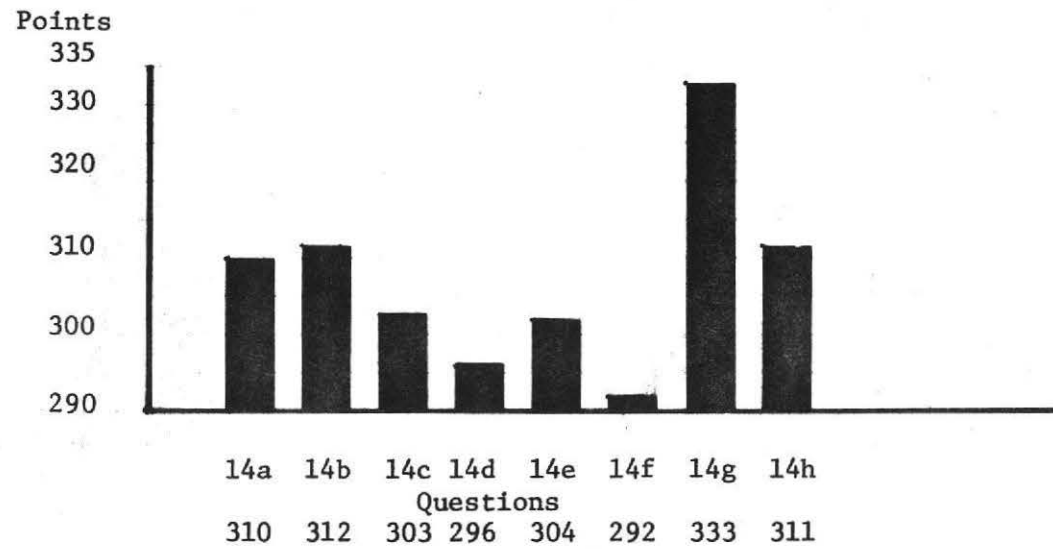


Figure 8. All respondents, responses to questions #14a-#14h.

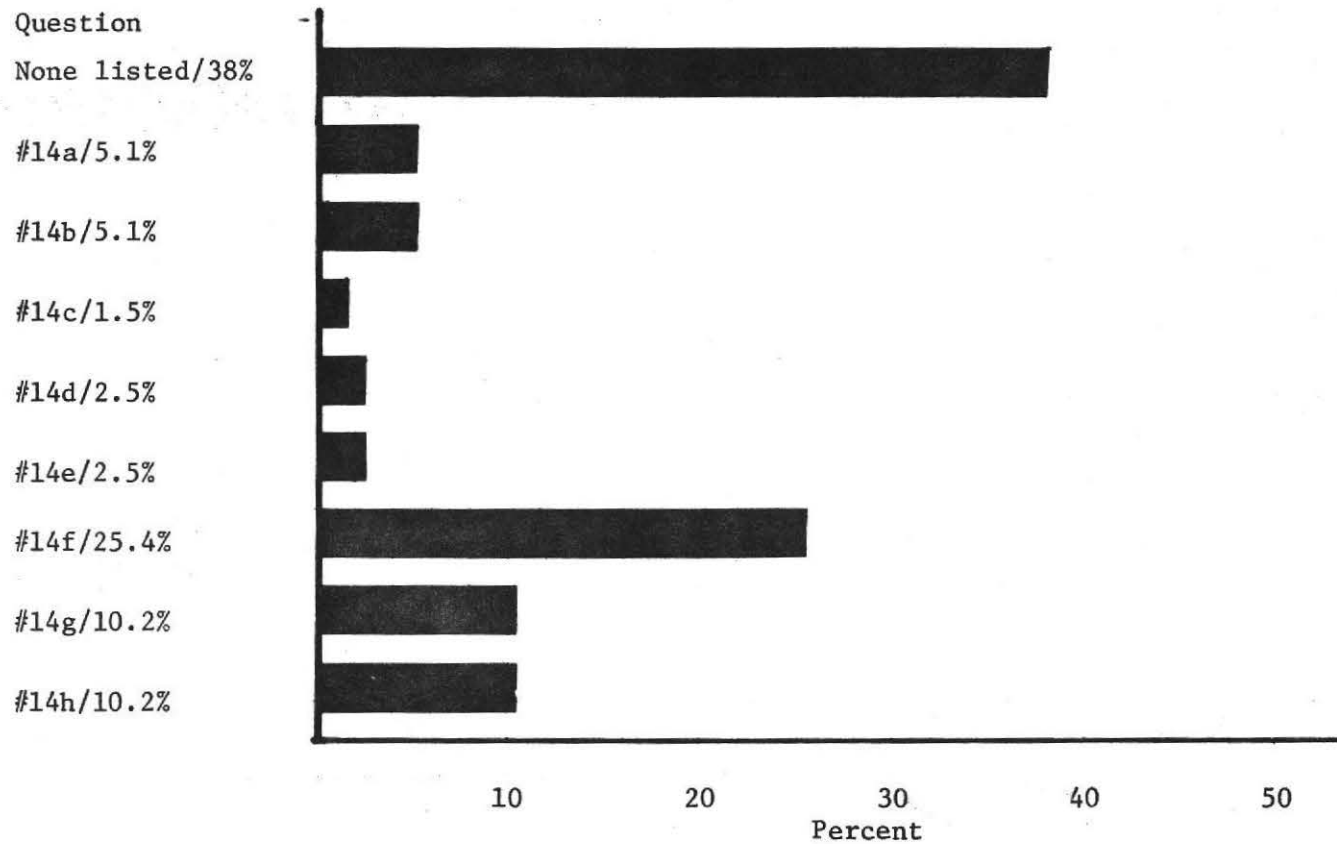


Figure 9. The objective chosen as best describing the purpose of the workshop, percent of respondents who chose each.



It is encouraging to note that the two main thrusts of the workshop-- emphasis on the need to include the people of a community and emphasis on ways natural resource information can be used in planning--came through clearly as those objectives which were most helpful to the respondents. However, it is also clear that the workshops were less helpful in directing the respondents as to how to actually go about identifying problems, locating assistance, developing natural resource criteria, and using it to help make land use decisions.

There are several factors which may account for disparity between the achievement of awareness type goals and those of a more "how-to-do-it" nature.

- 1) The morning session of the workshop was devoted to putting across the main emphasis of the program, while there were several "action" type objectives for the afternoon session.
- 2) The presentation time allotted for the primary emphasis of the program was greater than that for any of the "how-to-do-it" type objectives.
- 3) Activities designed to reinforce the main emphasis of the program may have been more clearly defined and more easily carried through.

It is disappointing to note that #14f, "understand a way to make decisions about where different types of human activities--agricultural, residential, commercial, industrial, and recreational can be placed on the land," was ranked least helpful. This item was taken directly from the Workbook definition of land use planning. In other words, while the workshops were apparently successful in creating an awareness of two

*perhaps our workbook can address itself to this*

fundamental aspects of land use planning, they were much less successful insofar as helping the respondents better understand land use planning as a process. ✓

This observation is supported (Figure 9) by the fact that even though item #14f was most often selected as best describing the purpose of the workshop, 65 percent of those who chose it (Appendix D) felt the objective was only "somewhat" or "very little" achieved. At the same time, 62.5 percent of those who chose #14g as best describing the purpose of the workshop felt that the objective was "perfectly" or "very much" accomplished.

Program. The program of a workshop consisted of a series of presentations followed by small group discussions. It was hoped that the participants would be able to identify with a "typical" land use problem, relate the group discussions of that problem to his own community, and, using plastic overlays of natural resource information, begin to appreciate how that information could be used to solve a land use problem. Items #7, #8, #9 and #10 on the questionnaire asked the subjects to substantiate the degree to which those goals for the program were fulfilled.

The results (Figure 10 and Table 7) indicate that the respondents most favorably agreed that they could identify one of the "typical" problems with a situation in their own community. Use of the overlays was helpful in giving the respondents an idea of how natural resource information could be used to help find solutions for land use problems. ✓

However, they were less likely to agree that the group at their table was able to focus clearly on the topic under discussion. Item #9

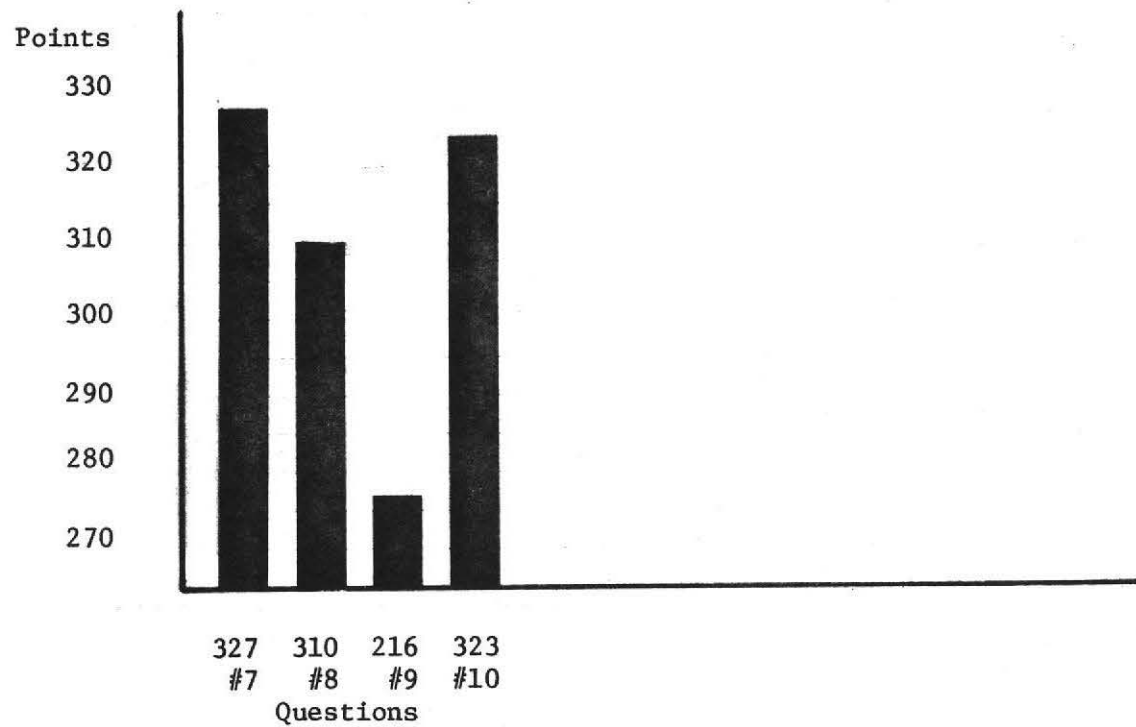


Figure 10. All respondents, results of question #7-#10.

Table 7. All respondents, ranking of responses to "program" items, #7-#10, on questionnaire

Ranking	Item
1.	#7. I was able to identify one of these land use problems with a situation in my own community.
2.	#10. Going over the problems again using plastic overlays for soils limitations, fault zones, drainage problems and steep slopes helped to give an idea as to how this information might help solve a land use problem.
3.	#8. As the workshop progressed I was able to relate the discussion to this problem and my own community.
4.	#9. The group at my table was able to focus clearly on the topic under discussion.

was added to the questionnaire because observation of the workshops indicated that this might be the case. The low ranking of #9 verifies that observation.

Another observation that was verified (Figure 11) was that those who were younger and better educated were more responsive to the program than those who were older and less well educated.

General questions. A number of general questions were part of the questionnaire for the purpose of:

- 1) Determining the receptivity of the respondents to the use of natural resource information in resolving land use conflicts--question #17.
- 2) Determining the receptivity to programs of this type--questions #18 and #19.

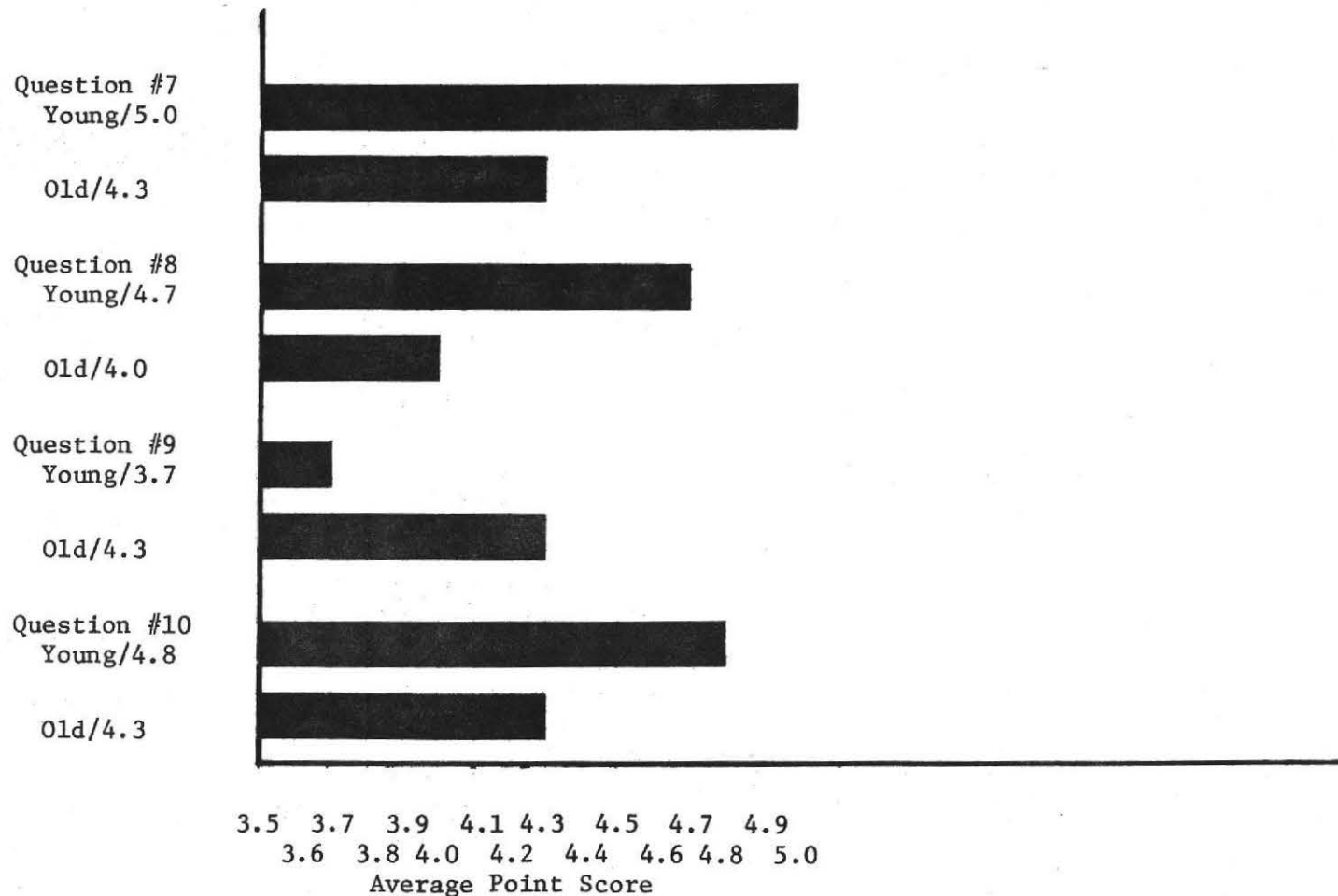


Figure 11. Comparison of responses between younger and better educated respondents, and older and less well educated respondents.

- 3) Determining the receptivity to the concept of respecting natural resources as the cities and towns of Utah grow.

The results (Table 8) show that the average score for each of these items was more than four. In other words, on the average, the respondents were receptive to respecting natural resources and using such information to help resolve land use conflicts. They also were receptive to workshops of this type. Ranking the total scores of this group of items shows (Table 9 and Figure 12) that the respondents were more inclined to agree with questions about natural resources than they were with those about workshops.

A profile of those who strongly agreed on question #17 (Figure 13) indicates that those in occupations relating to planning and natural resources were more likely to be receptive to using natural resource information, while those who were local officials, in business, or in farming were less receptive to the role such information can play in resolving land use conflicts. Most of the remainder of those in each of these occupation groups did "agree" on #17 (Figure 14).

Materials. The Workbook on Land Use Planning and the Heber Valley Story were intended to be used not only as aids during the workshops, but also later as reference materials.

The results showed that almost all who responded still had the materials (Figure 15). However, only eight respondents referred to the Workbook more than five times. Fourteen respondents said they had shown or lent these materials to more than five people (Figure 16). Of those who responded to the question, 81 percent strongly agreed or agreed that the Workbook was a useful reference. Sixty-eight percent felt the Heber Valley Story was a useful reference (Table 10).

*a justification for a workbook format!?*

Table 8. All respondents, responses to questions #17-#20

General	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Total	Average
Question 17	30	43	2	0	0	328.0	4.4
Question 18	2	1	8	36	27	307.0	4.1
Question 19	15	59	0	0	1	312.0	4.2
Question 20	29	41	3	0	1	319.0	4.3
Totals	101	179	13	1	4		

Table 9. All respondents, ranking of responses to "general" items, #17-#20, on questionnaire

Ranking	Item
1.	#17. Natural resource information can play a role in resolving land use conflicts.
2.	#20. If we don't begin to respect the natural resources as our cities and towns grow, Utah could end up with land use problems similar to California and Colorado.
3.	#18. There is so much in the news about the environment that workshops like this aren't needed.
4.	#19. Workshops like this help to create an awareness of the way environmental problems are related to land use problems.

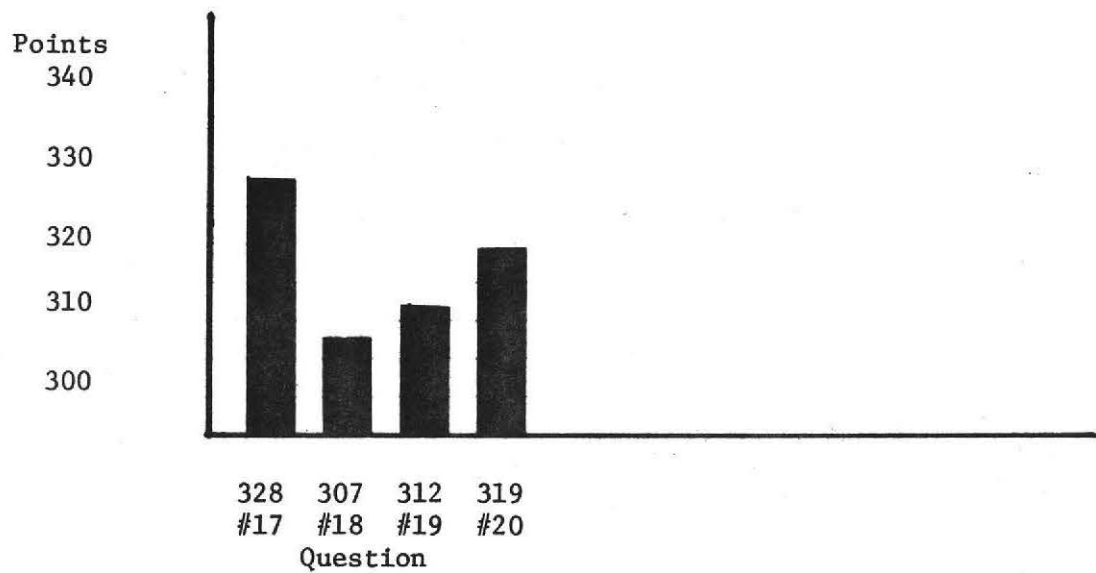
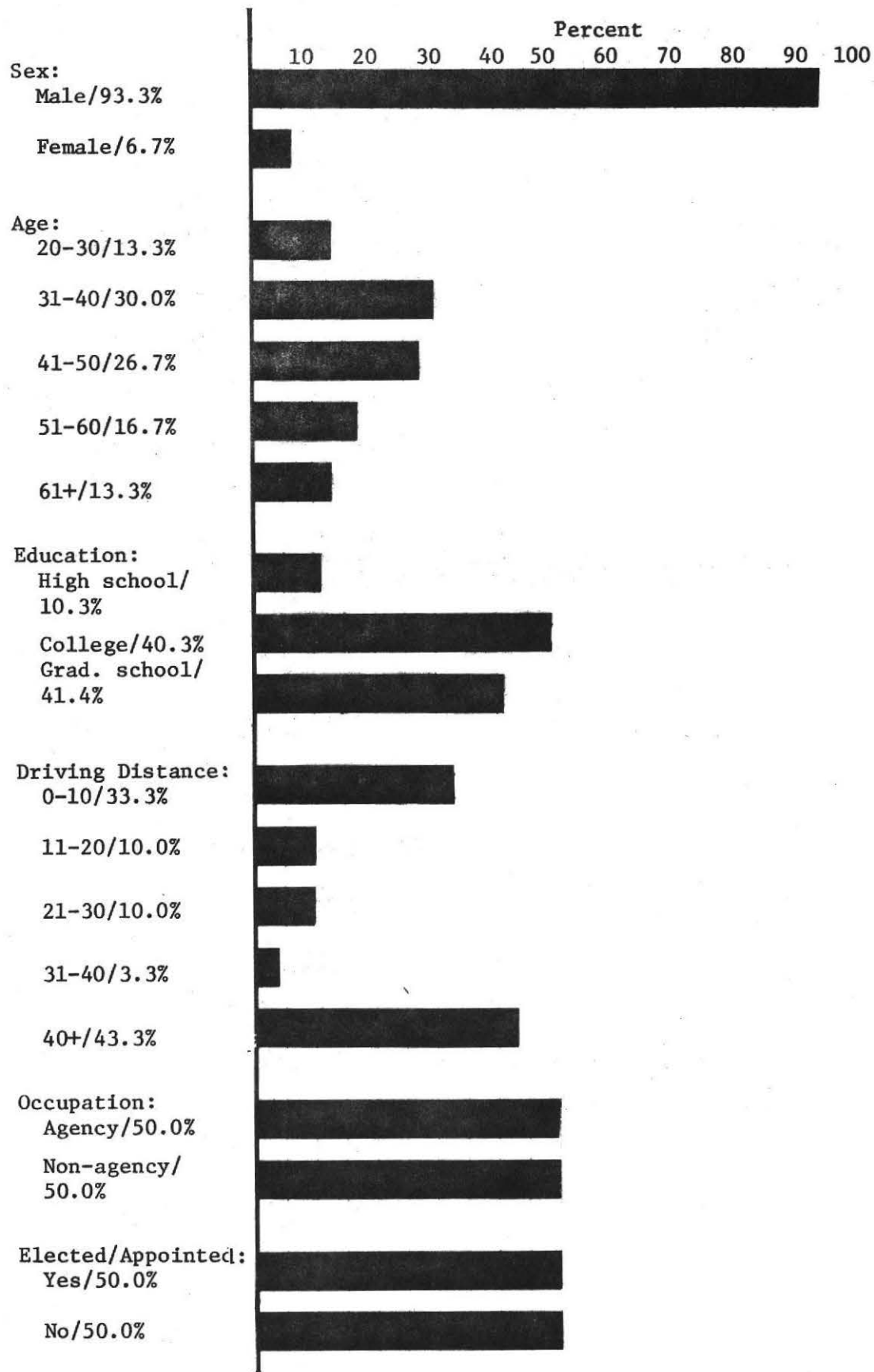


Figure 12. All respondents--response to questions #17-#20.







Percent of those  
in each occupation  
group:

Business/36.4%

Farming & ranch-  
ing/15.4%

Planning/53.8%

Natural resources/  
57.1%

Officials/26.7%

Percent of those  
in each local  
official group:

Elected/23.8%

Appointed/47.6%

Planning & zon-  
ing/50.0%

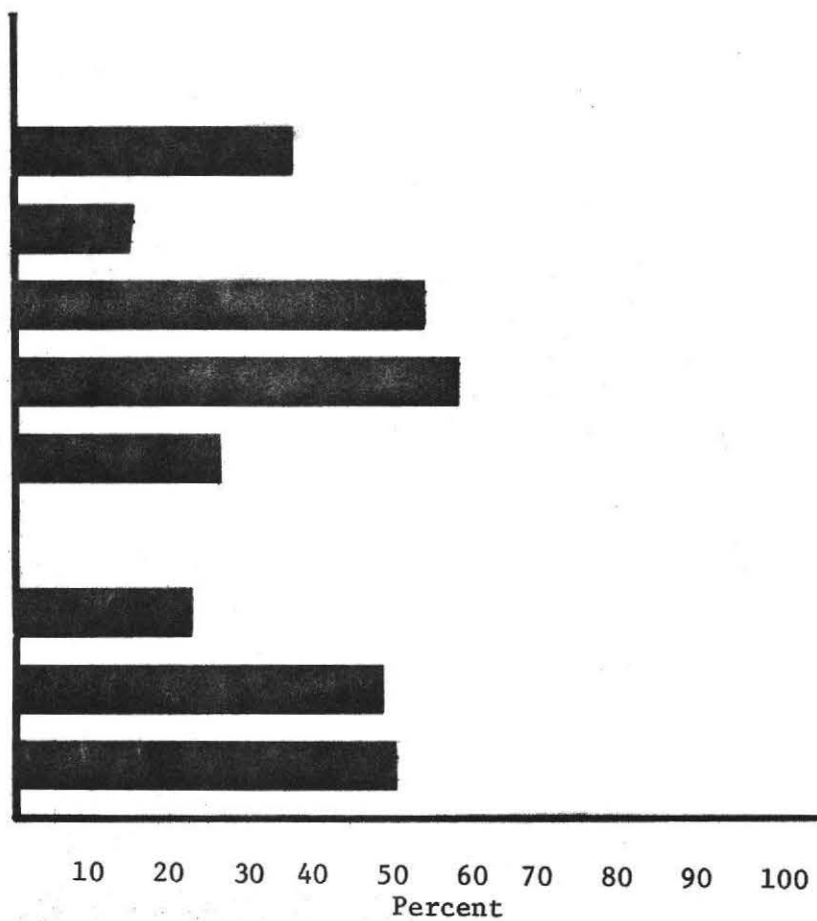
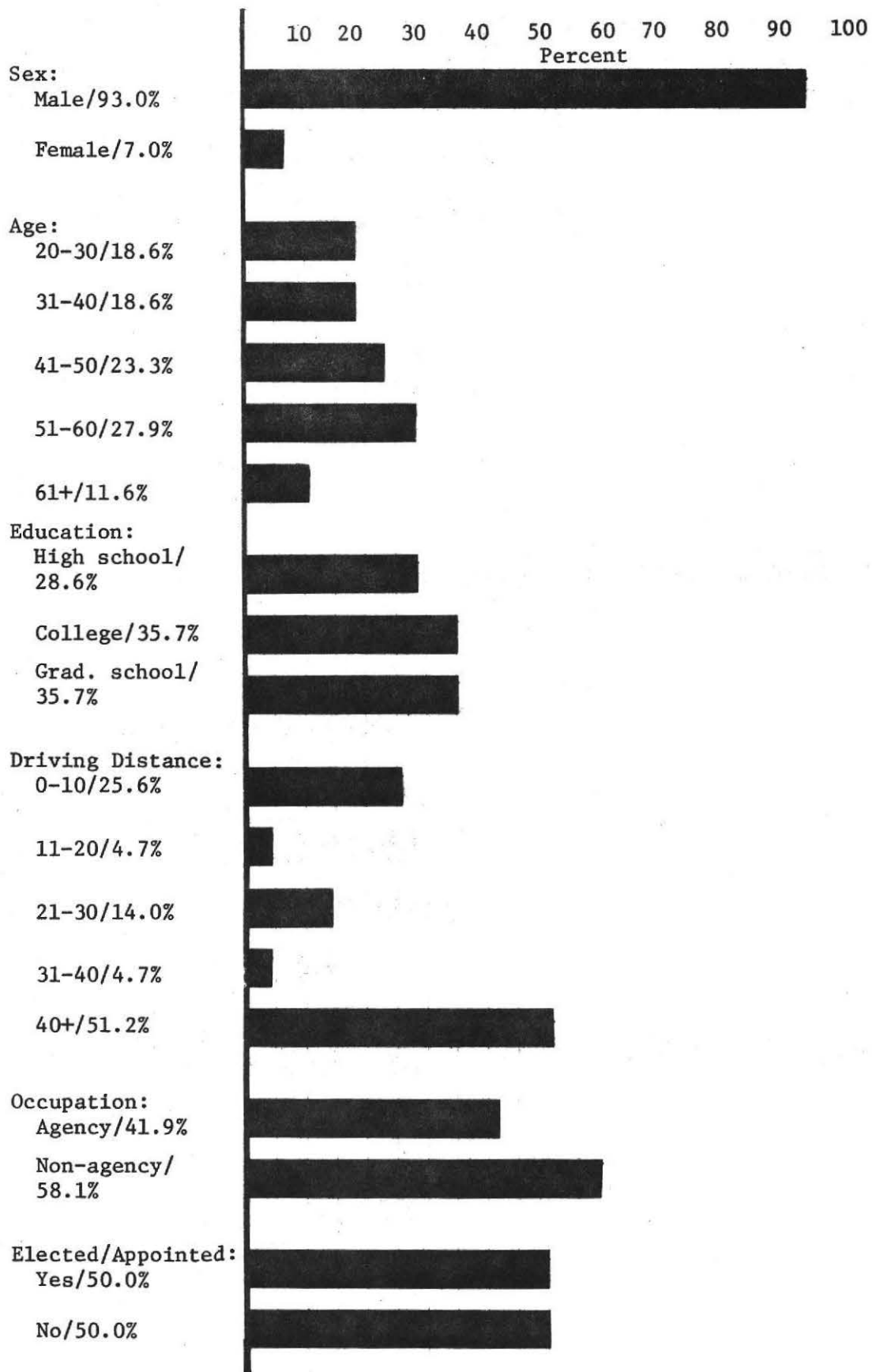


Figure 13 (Continued).





Percent of those  
in each occupa-  
tion group:

Business/54.5%

Farming &  
ranching/53.8%

Planning/  
46.2%

Natural re-  
sources/42.9%

Officials/  
66.7%

Percent of those  
in each local  
official group:

Elected/61.9%

Appointed/  
52.4%

Planning & zon-  
ing/50.0%

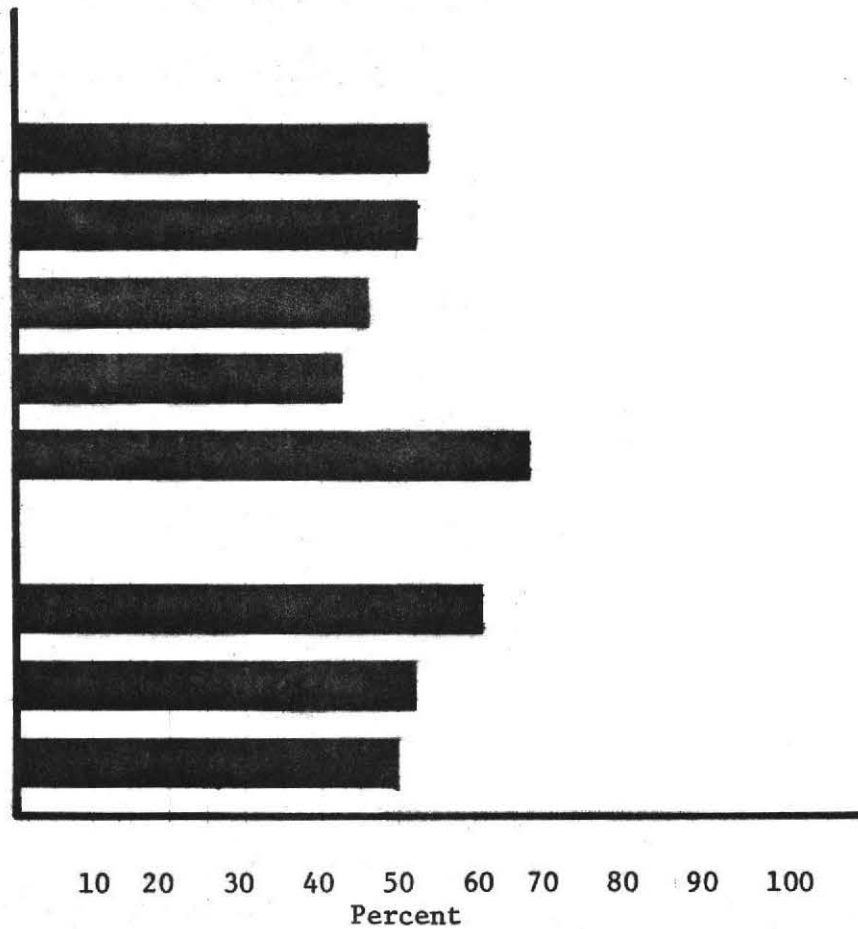


Figure 14 (Continued).

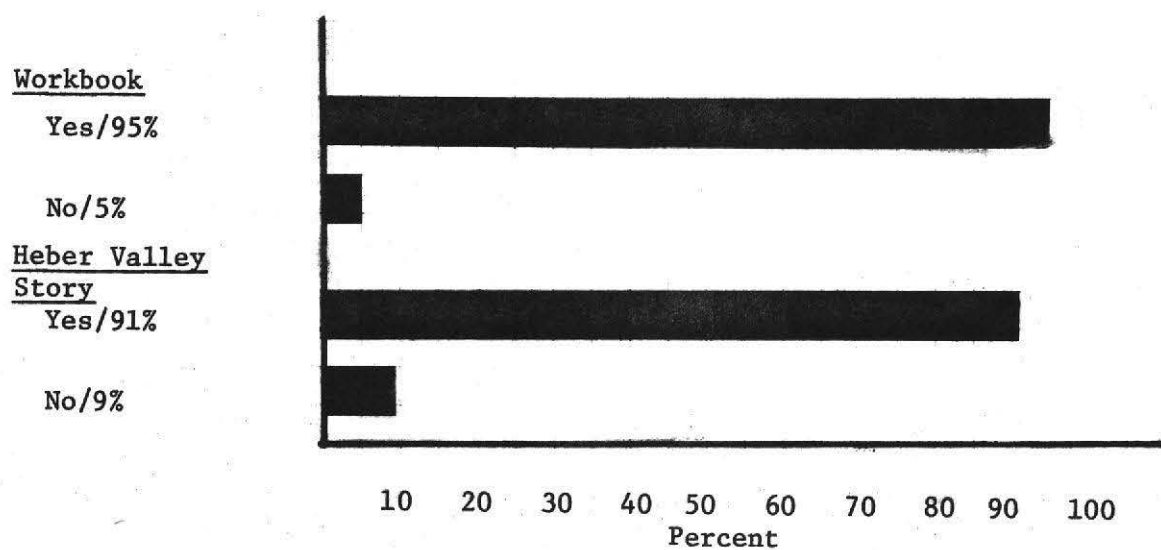


Figure 15. All respondents--"Do you still have the Workbook/Heber Valley Story?"

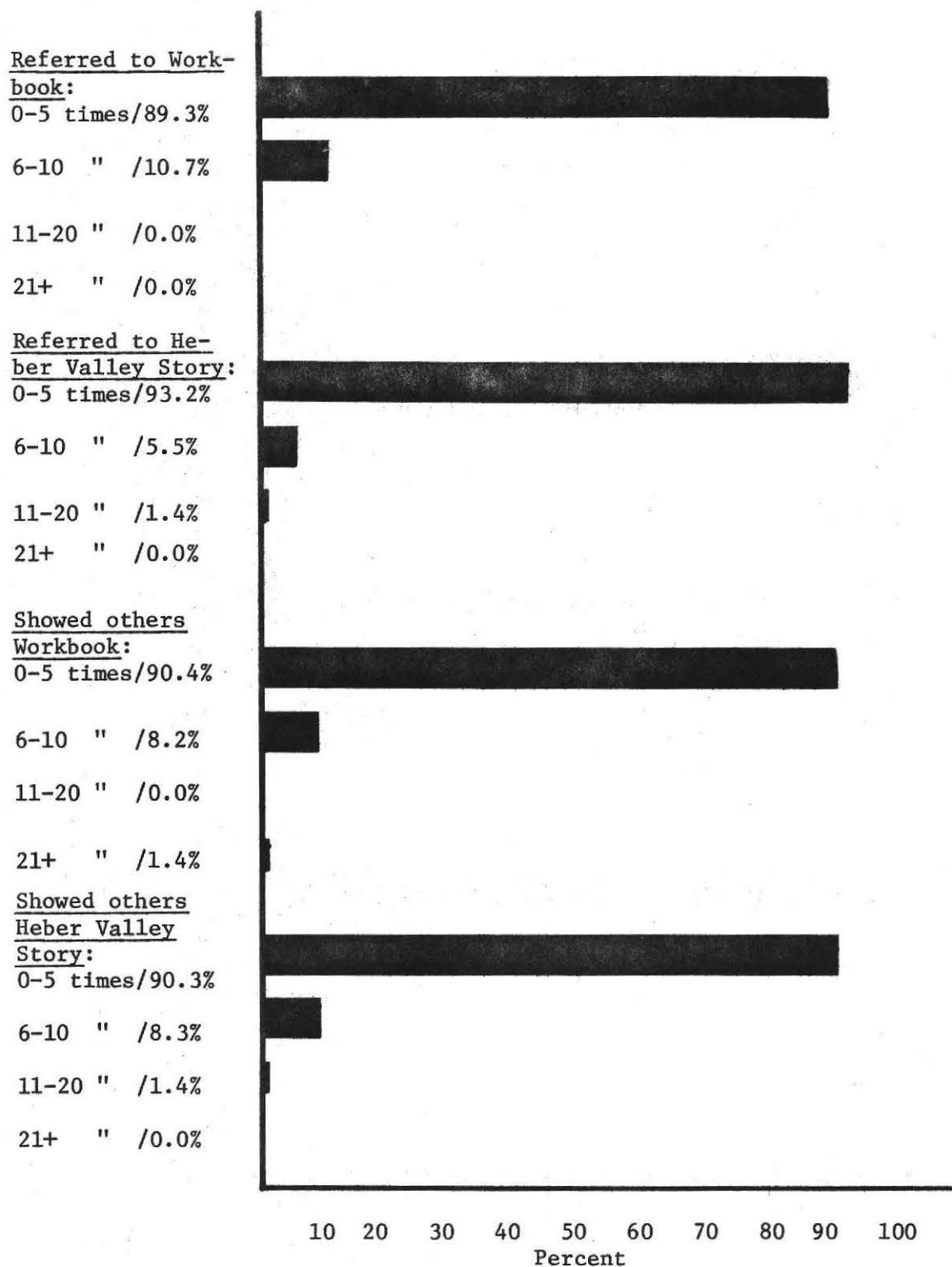


Figure 16. All respondents, number of times referred to/showed others the Workbook/Heber Valley Story.



Table 10. All respondents, "Workbook/Heber Valley Story was a useful reference"

Materials	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Total	Average
Question 13C (Workbook)	9	48	10	2	1	272.0	3.9
Question 13D (HVS)	4	28	12	2	1	173.0	3.7
Totals	13	76	22	4	2		

Overall reaction. The subjects were asked to rate their overall response (Figure 17) to the workshop as either excellent, good, average, poor or unsatisfactory. Profiles of each of these groups (Figure 18) indicate that the planning and natural resource occupational groups responded more positively to the workshops than those in the business and full time official groups. Officials who were appointed or connected with planning and zoning had a more favorable reaction to the workshops than did elected officials (Figure 19).

#### Content analysis

Purpose. Any procedure which assesses the relative extent to which a specific reference, attitude or theme permeates a given message or document is defined as content analysis. It is a research method capable of investigating the extent to which the content of a form of communication serves as the basis of inference (Holsti, 1960).

A content analysis was used to assess attitudes and themes prevalent in the comments written by respondents on returned questionnaires.

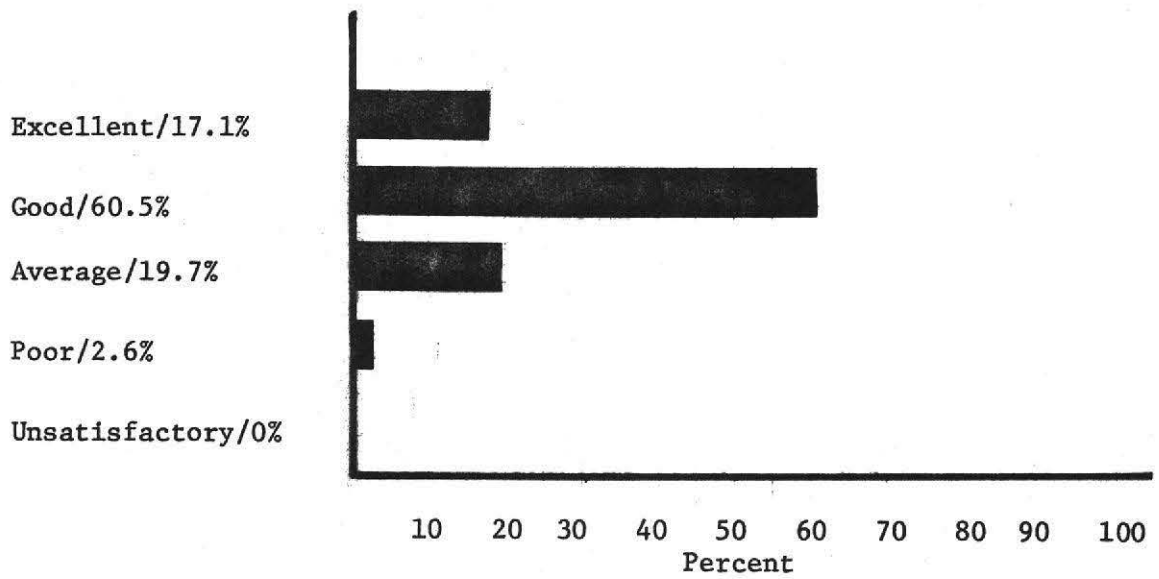


Figure 17. All respondents, overall reaction to the workshop.

## Business:

Excellent/0%

Good/72.7%

Average/27.2%

Poor/0%

Unsatisfactory/0%

## Farming &amp; ranching:

Excellent/8.2%

Good/58.3%

Average/16.6%

Poor/0%

Unsatisfactory/0%

## Planning:

Excellent/30.8%

Good/53.8%

Average/15.4%

Poor/0%

Unsatisfactory/0%

Figure 18. Overall reaction to the workshop by occupation group.

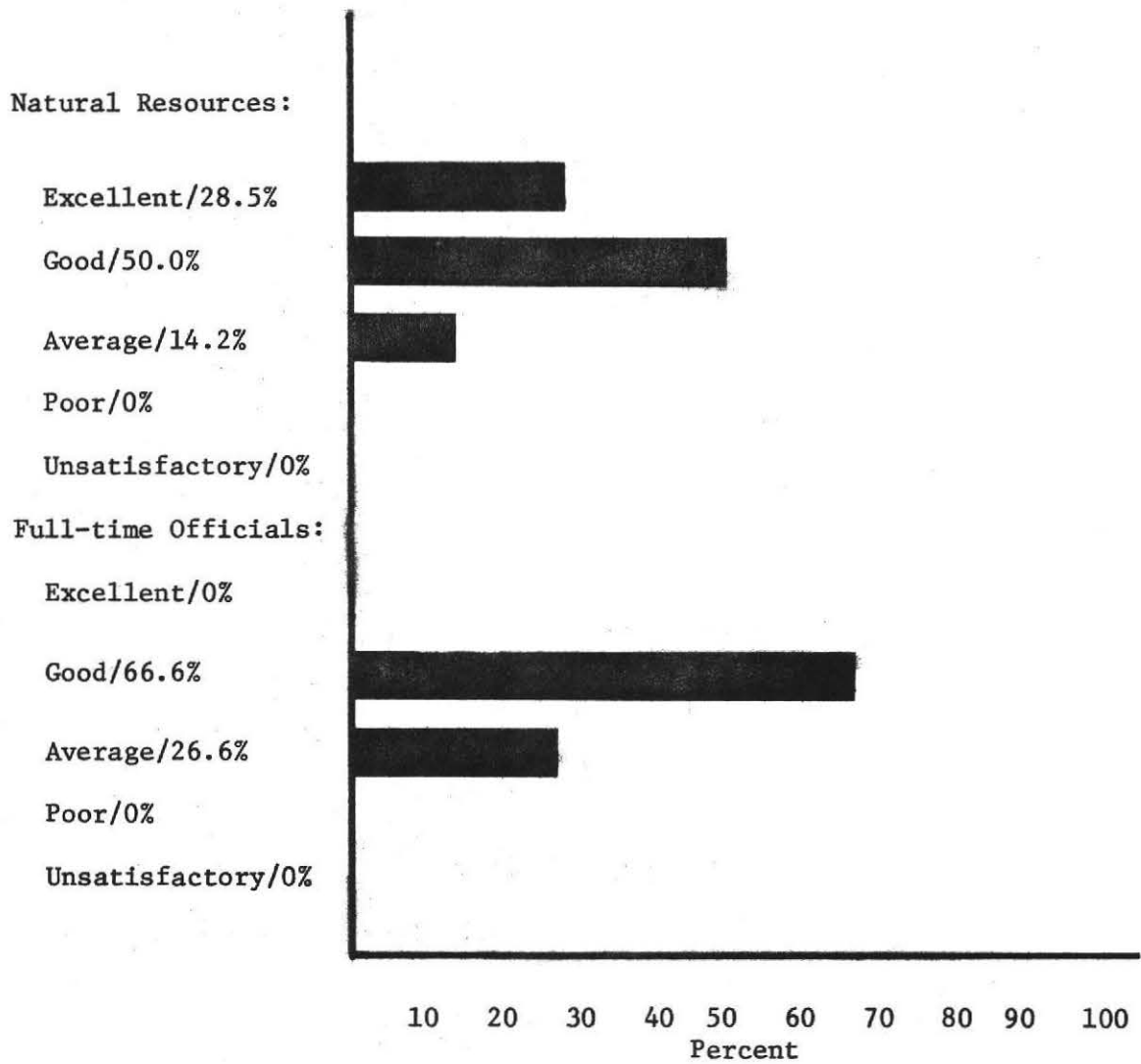


Figure 18 (Continued).

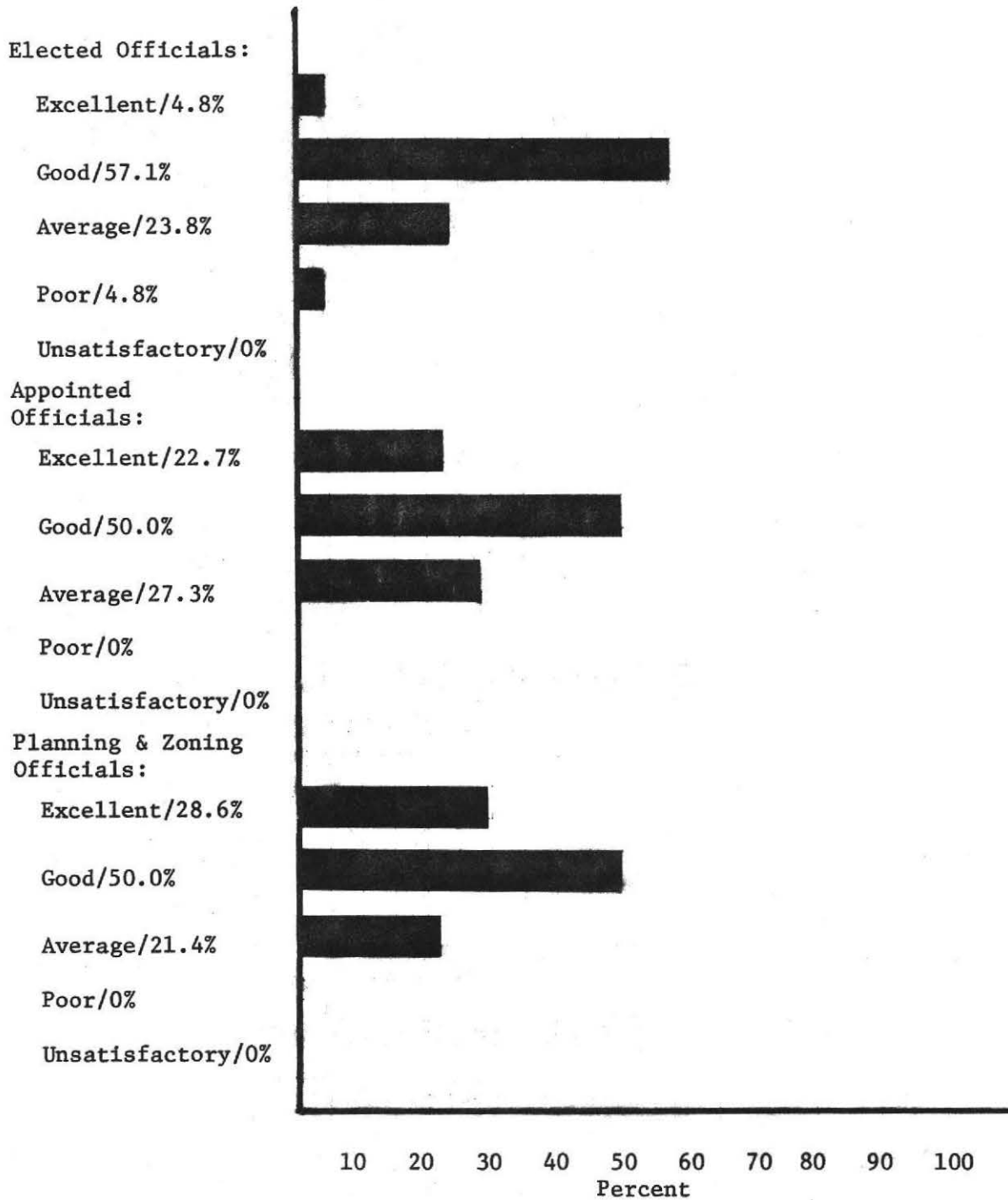


Figure 19. Overall reaction to the workshop by type of local official.

There were a number of reasons for doing this:

- 1) Determine the attitudes or themes which occurred most frequently in the comments.
- 2) Determine strong negative or positive reactions to the workshops.
- 3) Collect ideas for the improvement of such a program.
- 4) Gain additional insight into the questionnaire results.

Method. Nearly 66 percent of those who returned the questionnaire provided a written comment about the workshop they attended, or about land use planning in general. The comments were categorized according to whether the comment was a suggestion, opinion, a critique or a positive remark. These categories were further broken into sub-groups according to subject matter most frequently referred to or mentioned (Appendix D).

Results. The comments were grouped into one of four basic categories which reflected the predominate attitude or theme of each.

These categories were: Suggestions (35 comments), opinions (35), critiques (35), and positive remarks (26) (Table 11). There was a total of 131 comments, an average of 2.5 for every respondent who had written a comment.

The comments in the suggestions category pertained primarily to aspects of the program and to the follow-up of the workshops. Mentioned most frequently was a desire for more workshops on land use planning that would deal with a specific local problem.

Comments in the opinions category were mostly respondents' definitions of what is the "real" problem of land use planning. The crux of the problem was placed everywhere from government controls to environmentalist groups to human nature.

Table 11. Number and type of comments on returned questionnaires

Groups	Number of Comments on Questionnaire
Agency	25
Officials	15
Others	12
Total	<u>52</u>

Type of Comment	Number
Suggestion	35
Opinion	35
Critique	35
Positive	26
Total	<u>131</u>

Criticism of the workshops in these comments covered broad areas. Most of these comments reflected dissatisfaction with the group discussions, the location of the workshop, and aspects of the program presentation at the workshops.

Most of the positive remarks dealt with the program presentation of the workshops. The use of "typical" land use problems as examples and plastic overlays of natural resource information were most frequently mentioned as being helpful. ✓

Rating Sheet for Educational Literature  
on Land Use Planning

Purpose

Numerous planning meetings have been held and a number of pieces of educational literature on land use planning for local officials and the general public have been generated. One function of such literature is educational; to provide knowledge and skills that clarify the issues and help the reader to understand problems of land use. The other function is public relations, since "good public relations is necessary for the success and acceptance or support of any program." (Gilbert, 1971, p. 11)

Three broad categories of criteria (and/or guidelines) appear to be helpful when evaluating (and/or writing) educational literature on land use planning: public appeal, information, and educational concepts. ✓

If a goal of environmental education, as applied to land use planning, is to promote and create broad based public support for responsible land use, then a positive public appeal is necessary.



Public relations is "the engineering of consent." (Gilbert, 1971, p. 12) Successful public relations appeal of literature on land use planning is related to its simplicity, attractiveness, ease of understanding, overall style and uniqueness (Gilbert, 1971).

Another goal of education on land use planning is to provide information and skills that will enable the student to participate in community decisions. Literature for this purpose should provide knowledge that will aid in the understanding of issues and controversies, as well as provide an insight into the various human, environmental, and financial costs and benefits of alternative solutions to the problems.

That this literature is appealing and informative is not enough. There are also a number of criteria relating to educational concepts that should be met. These include: a philosophy that man is an integral part of an ecologic system (NSPR Assoc., 1971), an approach that is realistic (NSPR Assoc., 1971), and that the material is at an appropriate level of readability (Gilbert, 1971).

The purpose of the rating sheet is to:

- 1) Test a proposed framework of criteria, or guidelines, for the writing or evaluation of educational literature pertaining to land use planning.
- 2) Provide a basis for comparing written materials prepared specifically for these workshops with written materials distributed by other university Extension Services.

### Method

A rating sheet was prepared (Appendix C) and tested on eight graduate students; four from the Department of Landscape Architecture and Environmental Planning, four from the College of Education. They were instructed (Appendix C) to not only read and evaluate particular pieces of literature but also to comment on the appropriateness of the various elements of the rating sheet. Each piece of literature was read by two to five individuals. Average scores (Figure 20) and the range of scores (Figure 21) were calculated.

### Results

Since the range of scores on better than half of the materials reviewed by the readers was less than 10 percentage points, it seems reasonable to assume that the rating sheet does provide a basis for comparison. Of the 12 pieces of educational literature on land use planning the Workbook on Land Use Planning and The Heber Valley Story received the highest scores. The range of scores (Figure 21) indicates that both the two highest and two lowest scoring pieces of literature were consistently rated by the reviewers.

Workbook in Land Use Planning/80.9%

The Heber Valley Story/79.9

Zoning--An aid to community resource  
development/73.0%

You and Rural Zoning/72.7%

Open Space Acquisition and Control/71.5%

Facts About Rural Zoning/68.5%

Rural Zoning in Missouri/64.6%

Rural Zoning/62.9%

Making Rural and Urban Land Use Decisions/62.5%

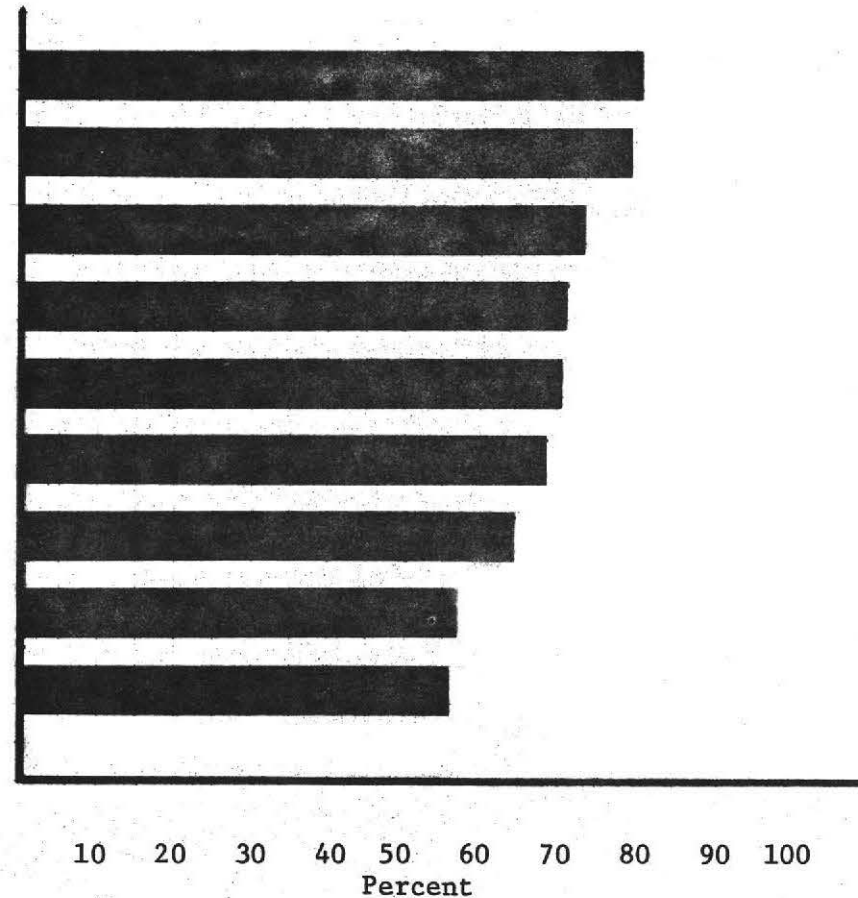


Figure 20. Average scores of pieces of literature on land use planning that were used for testing the rating sheet.

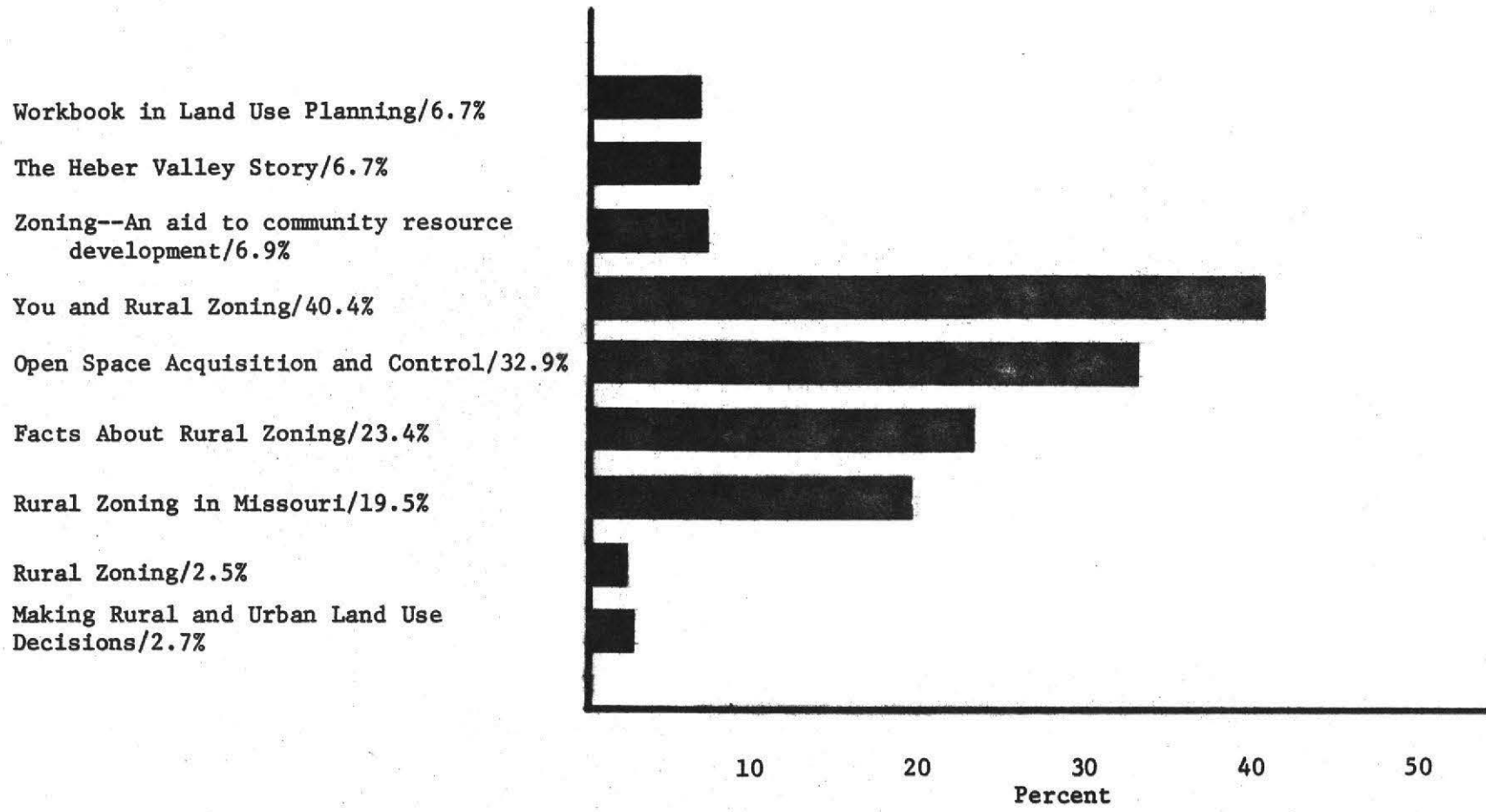


Figure 21. Percentage point range in scores of literature tested with rating sheet.

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APPENDIXES



Appendix A

Additional Figures and Tables

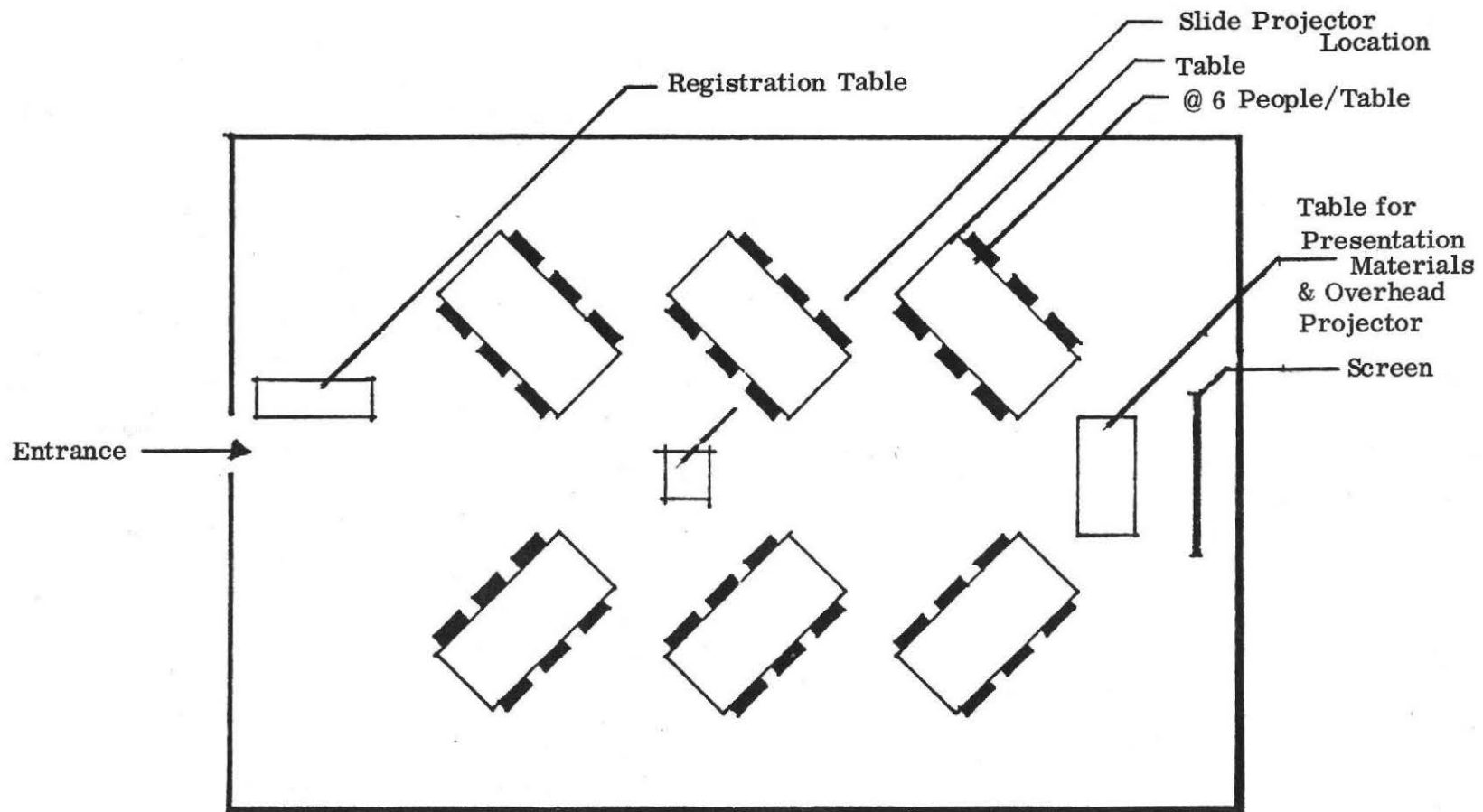


Figure 22. Typical meeting room layout for workshops on land use planning.

Table 12. Comparison of invitations and attendance at the land use planning workshops

Workshop	Number Invited	Attended		Those Who Attended Who Were:					
		No.	%	Agency		Local Officials		Others	
				No.	%	No.	%	No.	%
Brigham City	230	60	26	NA		NA		NA	
Cedar City	314	68	22	16	24	31	46	21	31
Bottle Hollow	448	60	14	29	49	6	10	25	42
Park City	332	72	22	20	28	24	34	28	39
Richfield	532	58	11	26	45	11	19	21	37
Farmington	954	78	9	31	40	12	16	33	43
Moab	637	56	9	31	56	6	11	20	36
Totals	3447	452	14	153	39	90	23	148	38

Table 13. Materials for land use planning workshops

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Land Use Planning in Sight and Sound -- Slide Box #1  
Slide Box #2  
Tape-Audio  
Extra Reel

Heber Valley Story -- Slide Box  
Audio Tape

Carousel Projector (with extra bulb)

Portable Screen

Overhead Projector (with extra bulb)

Tape Player

Land Use Planning Workbooks

Heber Valley Story (books)

OVERLAYS (for presentation)

OVERLAYS (for practical workbook exercises)

AGENDAS

NAME CARDS

Extra Pencils

Masking Tape

Registration Paper

Cassette Recorder

Marking Pencils (felt pens)

Land Use Planning Colloquium Reports

Cassettes

Extra Batteries

Extension cords

PUBLIC ADDRESS SYSTEM

CHALK

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Table 14. Demographic breakdown--all questionnaire respondents

Sex:	<u>Male</u>	<u>Female</u>			
Number:	74	5			
Percent:	93.7%	6.3%			
Age:	<u>20-30</u>	<u>31-40</u>	<u>41-50</u>	<u>51-60</u>	<u>61+</u>
Number:	12	18	21	18	10
Percent:	15.2%	22.8%	26.6%	22.8%	12.7%
Education:	<u>High School</u>		<u>College</u>		<u>Graduate School</u>
Number:	17		32		28
Percent:	22.1%		41.6%		36.4%
Driving Distance to Workshop (miles):	<u>0-10</u>	<u>11-20</u>	<u>21-30</u>	<u>31-40</u>	<u>40+</u>
Number:	22	6	9	3	39
Percent:	27.8%	7.6%	11.4%	3.8%	49.4%

Table 15. All respondents, responses to questions #14a-#14h

Objectives	Strongly Agree	Agree	No Opinion	Dis- agree	Strongly Disagree	Total	Average
Question 14A	11	60	4	1	1	310.0	4.0
Question 14B	16	53	6	1	0	312.0	4.1
Question 14C	11	52	11	3	1	303.0	3.9
Question 14D	10	54	8	3	0	296.0	3.9
Question 14E	14	50	10	2	0	304.0	4.0
Question 14F	10	52	9	3	1	292.0	3.9
Question 14G	29	43	4	2	0	333.0	4.3
Question 14H	14	53	9	1	0	311.0	4.0
Totals	115	417	61	16	3		

Table 16. All respondents, ranking objectives according to which one best describes the purpose of the workshop, and the degree to which that purpose was accomplished

Ranking	Objective	Percent of respondents who picked objective	Accomplished		
			Percent of those who chose the objective	Degree of accomplishment	Percent of those who said chosen objective was accomplished—perfectly, very much, etc.
1	None used	38	6.6	Perfectly	66.7
			43.6	Very much	38.2
			46.6	Somewhat	41.2
			3.1	Very little	12.5
2	14f.	25.4	0	Perfectly	0
			35	Very much	20.6
			50	Somewhat	29.4
			15	Very little	37.5
3	14g.	10.2	12.5	Perfectly	33.3
			50	Very much	11.8
			25	Somewhat	5.9
			12.5	Very little	12.5
3	14h.	10.2	0	Perfectly	0
			25	Very much	5.9
			37.5	Somewhat	8.8
			37.5	Very little	37.5
5	14b.	5.1	0	Perfectly	0
			25	Very much	2.9
			75	Somewhat	8.8
			0	Very little	0
5	14a.	5.1	0	Perfectly	0
			100	Very much	11.8
			0	Somewhat	0
			0	Very little	0
7	14d.	2.5	0	Perfectly	0
			0	Very much	0
			100	Somewhat	5.9
			0	Very little	0

Table 16. Continued

<u>Ranking</u>		Percent of respon- dents who picked Objective objective	Accomplished		
			Percent of those who chose the objective	Degree of accomp- lishment	Percent of those who said chosen objective was accomp- lished—perfectly, very much, etc.
7	14e.	2.5	0	Perfectly	0
			0	Very much	5.9
			100	Somewhat	0
			0	Very little	0
9	14c.	1.5	0	Perfectly	0
			100	Very much	2.9
				Somewhat	0
				Very little	0



Table 17. All respondents, results of question #7-#10

Program	Strongly Agree	Agree	No Opinion	Dis- agree	Strongly Disagree	Total	Average
Question 7	34	37	2	1	1	327.0	4.4
Question 8	22	47	3	1	1	310.0	4.2
Question 9	9	49	4	11	1	276.0	3.7
Question 10	32	36	5	2	0	323.0	4.3
Totals	97	169	14	15	3		

Table 18. Comparison of responses between younger and better educated respondents and older and less well educated respondents

Age 20-30										
Education Graduate School										
Question 21--	Excellent		Good		Average		Poor		Unsatisfactory	
	1	16.7%	4	66.7%	1	16.7%	0	0.0%	0	0.0%
Program	Strongly Agree	Agree	No Opinion	Dis-agree	Strongly Disagree	Total	Average			
Question 7	6	0	0	0	0	30.0	5.0			
Question 8	4	2	0	0	0	28.0	4.7			
Question 9	0	5	0	1	0	22.0	3.7			
Question 10	5	1	0	0	0	29.0	4.8			
Totals	15	8	0	1	0	109.0	4.55			
-----										
Age 60+										
Education High School										
Question 21--	Excellent		Good		Average		Poor		Unsatisfactory	
	0	0.0%	4	100%	0	0.0%	0	0.0%	0	0.0%
Program	Strongly Agree	Agree	No Opinion	Dis-agree	Strongly Disagree	Total	Average			
Question 7	1	3	0	0	0	17.0	4.3			
Question 8	0	4	0	0	0	16.0	4.0			
Question 9	1	2	0	0	0	13.0	4.3			
Question 10	1	3	0	0	0	17.0	4.3			
Totals	3	12	0	0	0	63.0	4.22			

Table 19. Profile--those who "strongly agree" on question #17, "natural resources can play a role in resolving land use conflicts"

---

Sex:	Male		Female	
	No.	%	No.	%
	28	93.3	2	6.7

Age:	20-30		31-40		41-50		51-60		61+	
	No.	%	No.	%	No.	%	No.	%	No.	%
	4	13.3	9	30.0	8	26.7	5	16.7	4	13.3

Education:	High School		College		Graduate School	
	No.	%	No.	%	No.	%
	3	10.3	14	48.3	12	41.4

Driving Distance:	0-10		11-20		21-30		31-40		41+	
	No.	%	No.	%	No.	%	No.	%	No.	%
	10	33.3	3	10.0	3	10.0	1	3.3	13	43.3

Occupation:	Agency		Non-Agency	
	No.	%	No.	%
	15	50.0	15	50.0

Elected or Appointed:	Yes		No	
	No.	%	No.	%
	15	50.0	15	50.0

Percent of Those in Each Occupation Group:

4/11	Business	36.4%
2/13	Farming and ranching	15.4%
7/13	Planning	53.8%
8/14	Natural resources	57.1%
4/15	Officials (5 others)	26.7%

Percent of Each Local Official Group:

5/21	Elected	23.8
10/21	Appointed	47.6
7/14	Planning and zoning	50.0

---

Table 20. Profile--those who "agree" on question #17, "natural resource information can play a role in resolving land use conflicts"

---

Sex:	<u>Male</u>		<u>Female</u>							
	No.	%	No.	%						
	40	93.0	3	7.0						
Age:	<u>20-30</u>		<u>31-40</u>		<u>41-50</u>		<u>51-60</u>		<u>61+</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
	8	18.6	8	18.6	10	23.3	12	27.9	5	11.6
Education:	<u>High School</u>		<u>College</u>		<u>Graduate School</u>					
	No.	%	No.	%	No.	%	No.	%		
	12	28.6	15	35.7	15	35.7				
Driving Distance:	<u>0-10</u>		<u>11-20</u>		<u>21-30</u>		<u>31-40</u>		<u>41+</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
	11	25.6	2	4.7	6	14.0	2	4.7	22	51.2
Occupation:	<u>Agency</u>		<u>Non-Agency</u>							
	No.	%	No.	%						
	18	41.9	25	58.1						
Elected or Appointed:	<u>Yes</u>		<u>No</u>							
	No.	%	No.	%						
	15	50.0	15	50.0						
Percent of Those in Each Occupation Group:										
6/11	Business									54.5%
7/13	Farming and ranching									53.8%
6/13	Planning									46.2%
6/14	Natural resources									42.9%
10/15	Officials									66.7%
Percent of Those in Each Group of Local Officials:										
13/21	Elected									61.9%
11/21	Appointed									52.4%
7/14	Planning and zoning									50.0%

---

Table 21. All respondents, "Do you still have the Workbook/Heber Valley Story?"

	Yes		No	
	No.	%	No.	%
Question 11A	71	95.0	3	4.0
Question 11B	66	91.0	6	8.0
Totals	137		9	

Table 22. All respondents, "Number of times referred to or showed others the Workbook/Heber Valley Story"

Materials	0-5		6-10		11-20		21+		
	No.	%	No.	%	No.	%	No.	%	
Referred to	wkbk: Question 12A	67	89.3	8	10.7	0	0.0	0	0.0
	HVS: Question 12B	68	93.2	4	5.5	1	1.4	0	0.0
Showed	wkbk: Question 13A	66	90.4	6	8.2	0	0.0	1	1.4
	HVS: Question 13B	65	90.3	6	8.3	1	1.4	0	0.0

Table 23. All respondents, overall reaction to the workshop (Question #21)

Excellent	Good	Average	Poor	Unsatisfactory
17.1%	60.5%	19.7%	2.6%	0

Table 24. Overall reaction to workshop (question #21) by occupation groups

	Excellent	Good	Average	Poor	Unsatisfactory
Business	0	72.7	27.2	0	0
Farming & ranching	8.2	58.3	16.6	0	0
Planning	30.8	53.8	15.4	0	0
Natural resources	28.5	50.0	14.2	0	0
Full time officials	0	66.6	26.6	0	0

Table 25. Overall reaction to workshop (question #21) by type of official

	Excellent	Good	Average	Poor	Unsatisfactory
Elected*	4.8	57.1	23.8	4.8	0
Appointed	22.7	50.0	27.3	0	0
Planning & zoning	28.6	50.0	21.4	0	0

\*Row for elected officials does not equal 100% because not all of this group responded to the question.

Table 26. Compilation of rating sheet scores

Title	Published By:	Evaluation By:				Total	No. N.A.	Per- cent Score
		(Graduate Students)	Public Appeal	Informa- tion	Educ. Concepts			
Zoning-an aid to community resource development	Fed. Ext. Service	LAEP	18	10	22	50	0	69.5
"	"	Educ.	18	12	25	55	0	76.4
Rural Zoning in Missouri	Univ. Missouri	LAEP	13.5	8.5	18	40	0	55.5
"	"	Educ.	15	11	28	54	0	75.0
"	"	Psyc.	13	10	20	43	1	63.2
You & Rural Zoning	Univ. Minnesota	LAEP	16	8	17	41	0	56.9
"	"	Soc.Sci.	16	9	21	46	0	63.8
"	"	Educ.	23	11	36	70	0	97.3
Facts About Rural Zoning	Ohio State Ext.	LAEP	21.3	11.5	23	55.8	1	77.6
"	"	Soc.Sci.	17	6	16	39	0	54.2
"	"	Educ.	19	7	27	53	0	73.7
Open Space Acquisition & Control	Texas A&M Agri. Ext. Service	LAEP	20	11	23	54	2	84.3
"	"	Soc.Sci.	15	4	18	37	0	51.4
"	"	Educ.	18	10	25	53	0	73.7
"	"	Educ.	19	11	25	55	0	76.4
Making Rural & Urban Land Use Dec.	Iowa State Ext. Service	Psyc.	20	5	21	46	0	63.8
"	"	LAEP	16	8	20	44	0	61.1

Table 26. Continued

Title	Published By:	Evaluation By:				Total	No. N.A.	Per- cent Score
		(Graduate Students)	Public Appeal	Informa- tion	Educ. Concepts			
Rural Zoning	Wash.State Univ.	LAEP	16.6	8.6	21	46.2	0	64.1
"	"	Psyc.	12	10	19	42	1	61.6
Heber Valley Story	Environment & Man, Utah State Univ.	LAEP	22	12	27	56	0	77.8
"	"	LAEP	20	11	26	57	0	79.1
"	"	Educ.	20	11	30	61	0	84.6
"	"	Educ.	20	11	25	56	0	77.8
Workbook in Land Use Planning	Environment & Man, Utah State Univ.	LAEP	21	11.4	26.1	58.5	0	81.2
"	"	LAEP	23	10	24.5	57.5	1	84.5
"	"	LAEP	20	11	30	61	0	84.6
"	"	Psyc.	20	8	27	55	0	76.4
"	"	Soc.Sci.	21	8	27	56	0	77.8
Pine Creek & Mill River Study	Yale--School of Forestry	LAEP	21	7	26.5	54.5	0	75.6
Everyone has a Stake in Community Plan- ning	Extension Div. Univ. of Missouri	LAEP	17	11	23	51	1	75
A 3-County Plan- ning Program	Extension Div. Univ. of Missouri	LAEP	10	8.1	20	38.1	0	52.8



Appendix BThe Questionnaire and Cover Letters

June 1973

Hello!

On March 7, 1973, you attended a workshop on land use planning in Richfield. This workshop was sponsored by the Environment and Man Program at Utah State University.

The program of this workshop included:

- . A multi-media presentation entitled "Land Use Planning in Sight and Sound."
- . Discussion activities in a workbook prepared for the workshops.
- . Presentations by a representative of the Bureau of Land Management and U.S. Forest Service.
- . Presentation by George Smeath, Professional Planner.
- . A multi-media presentation of "The Heber Valley Story;" a booklet telling that story was also distributed.
- . A discussion with Marven J. Ogden, the Executive Director of the Six County Association of Governments, "Where Do We Go From Here."

We would appreciate you helping us to evaluate this program by completing the enclosed questionnaire and returning it in the envelope provided.

Thank you,

Andy Germanow  
Environment & Man Program  
Utah State University

June 1973

Hello!

On February 9, 1973, you attended a workshop on land use planning in Cedar City. This workshop was sponsored by the Environment and Man Program at Utah State University.

The program of this workshop included:

- . A multi-media presentation entitled "Land Use Planning in Sight and Sound."
- . Discussion activities in a workbook prepared for the workshops.
- . Presentations by a representative of the Soil Conservation Service.
- . Presentation by John Willie, Professional Planner.
- . A multi-media presentation of "The Heber Valley Story;" a booklet telling that story was also distributed.
- . A discussion with Neil Christensen, the Executive Director of the Five County Association of Governments entitled, "Where Do We Go from Here."

We would appreciate you helping us to evaluate this program by completing the enclosed questionnaire and returning it in the envelope provided.

Thank you,

Andy Germanow  
Environment & Man Program  
Utah State University

June 1973

Hello!

On February 21, 1973, you attended a workshop on land use planning in Park City. This workshop was sponsored by the Environment and Man Program at Utah State University.

The program of this workshop included:

- . A multi-media presentation entitled "Land Use Planning in Sight and Sound."
- . Discussion activities in a workbook prepared for the workshops.
- . Presentations by a representative of the Soil Conservation Service.
- . Presentation by Dale Despain, Professional Planner.
- . A multi-media presentation of "The Heber Valley Story;" a booklet telling that story was also distributed.
- . A discussion with George Scott, Executive Director of the Mountainlands Association of Governments entitled, "Where Do We Go From Here."

We would appreciate you helping us to evaluate this program by completing the enclosed questionnaire and returning it in the envelope provided.

Thank you,

Andy Germanow  
Environment & Man Program  
Utah State University

July, 1973

Hello

In June you were sent a questionnaire and asked to help us evaluate a Land Use Planning Workshop which you attended earlier in the year.

To those of you who have returned the questionnaire -- Thank You!

If you have not yet returned the questionnaire we would appreciate it if you would do so. Please send it to:

Workshops  
Environment and Man Program  
UMC-48  
Utah State University  
Logan, Utah 84322

Thank you,

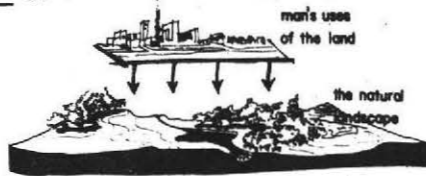
Andy Germanow

AG/do

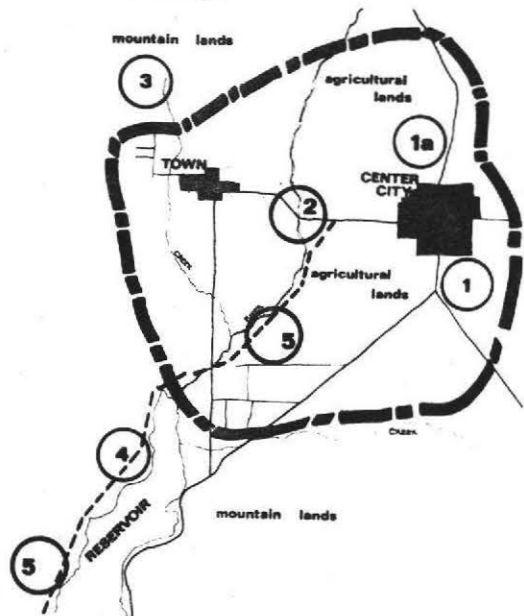
THE QUESTIONNAIRE

QUESTIONNAIRE

1. Male Female circle one
2. Age - check one:  20 - 30  51 - 60  
 31 - 40  61 +  
 41 - 50
3. Education - check one:  
 High School  
 College  
 Graduate School
4. How far did you have to drive to the workshop: - check one:  
 0 - 10 miles  31 - 40 miles  
 11 - 20 miles  40 + miles  
 21 - 30 miles
5. Occupation: \_\_\_\_\_
6. Are you an elected or appointed official in your community? \_\_\_\_\_  
 If so, what is your title? \_\_\_\_\_



PROGRAM



During the workshop this map was used as an example of a typical Utah valley. The land use problems discussed were:  
 1) Sub-divisions on prime agricultural lands  
 2) Commercial strip development  
 3) Recreation-second home sub-divisions in mountain lands  
 4) Location of a new industry  
 5) Location of a new highway

Please put an "X" in the appropriate space:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
7. I was able to identify one of these land use problems with a situation in my own community. Comment: _____	_____	_____	_____	_____	_____
8. As the workshop progressed I was able to relate the discussion to this problem and my own community. Comment: _____	_____	_____	_____	_____	_____
9. The group at my table was able to focus clearly on the topic under discussion. Comment: _____	_____	_____	_____	_____	_____
10. Going over the problems again using plastic overlays for soils limitations, fault zones, drainage problems and steep slopes helped to give an idea as to how this information might help solve a land use problem. Comment: _____	_____	_____	_____	_____	_____

MATERIALS

At the workshop you were given a Workbook in Land Use Planning and a booklet entitled The Heber Valley Story. The following questions refer to these materials.

11. Do you still have: a) The Workbook Yes No  
 b) The Heber Valley Story Yes No
12. Since the Workshop how many times have you referred to:  
 a) The Workbook b) The Heber Valley Story  
 0 - 5   
 6 - 10   
 11 - 20   
 21 +
13. To how many people have you shown or lent:  
 a) The Workbook b) The Heber Valley Story  
 0 - 5   
 6 - 10   
 11 - 20   
 21 +

Please put an "X" in the appropriate space:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
I have found the workbook to be a useful reference. COMMENT: _____	_____	_____	_____	_____	_____
I have found the <u>Heber Valley Story</u> to be a useful reference.	_____	_____	_____	_____	_____

THE QUESTIONNAIRE (Continued)

OBJECTIVES

Please place an "X" in the appropriate space:

14. If you think your attendance at this workshop has helped you to:	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
a. Identify your community's planning problems. Comment:	_____	_____	_____	_____	_____
b. Determine what natural resources information such planning problems require for solution. Comment:	_____	_____	_____	_____	_____
c. Identify the available state, federal, or private natural resource technicians and planners who can assist in developing the needed base of natural resource information. Comment:	_____	_____	_____	_____	_____
d. Evaluate natural resource information as you make land use decisions. Comment:	_____	_____	_____	_____	_____
e. Develop natural resource criteria to make land use decisions. Comment:	_____	_____	_____	_____	_____
f. Understand a way to make decisions about where different types of human activities--agricultural, residential, commercial, industrial, and recreational can be placed on the land. Comment:	_____	_____	_____	_____	_____
g. Understand the importance of including the people in your community in the decision making process. Comment:	_____	_____	_____	_____	_____
h. Understand how a natural resource inventory can be used as an aid in making land use decisions in your community. Comment:	_____	_____	_____	_____	_____

15. All of the above statements were objectives of the workshop. Please circle the one You feel best describes the purpose of the workshop.

16. How well do you feel this purpose was accomplished?  
 \_\_\_\_\_ perfectly    \_\_\_\_\_ very much    \_\_\_\_\_ somewhat    \_\_\_\_\_ very little

GENERAL

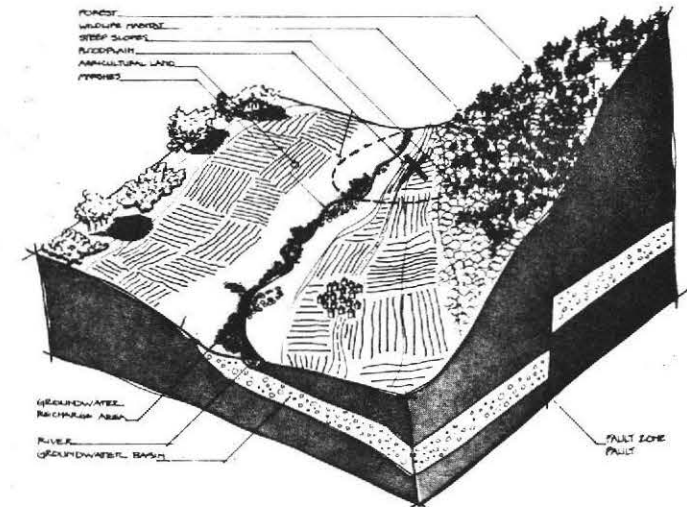
Put an "X" in the appropriate space:

	Strongly Agree	Agree	No Comment	Disagree	Strongly Disagree
17. Natural resource information can play a role in resolving land use conflicts. Comment:	_____	_____	_____	_____	_____
18. There is so much in the news about the environment that workshops like this aren't needed. Comment:	_____	_____	_____	_____	_____
19. Workshops like this help to create an awareness of the way environmental problems are related to land use problems. Comment:	_____	_____	_____	_____	_____
20. If we don't begin to respect the natural resources as our cities and towns grow, Utah could end up with land use problems similar to California and Colorado. Comment:	_____	_____	_____	_____	_____

21. Record your overall reaction to the workshops by making an "X" at the appropriate point on the scale:

Excellent      Good      Average      Poor      Unsatisfactory

22. What suggestions or candid comments do you have with regard to this or future workshops of this type?



Appendix C

Rating Sheet and Instructions for Its Use

The purpose of this rating sheet is to provide a framework for the evaluation and/or writing of literature pertaining to land use planning.

You have been given one rating sheet for each piece of land use planning literature.

Use the following procedure for evaluating the written material:

- 1) Familiarize yourself with the rating sheet and each piece of literature.
- 2) Rate each piece of literature according to how well it fits the criteria stated for each element.
  - Scoring is as follows: Excellent, 4 points; adequate, 3 points; mediocre, 2 points; poor, 1 point.
  - Guides on the left side of the page are criteria which must be met--the more criteria met, the higher the rating.
  - Guides on the right side of the page indicate possible deficiencies--more of these will lower the rating.
  - Note N.A. in the space if the element is inappropriate and state why.
- 3) Use the attached chart to determine reading difficulty.
- 4) Feel free to make comments on the rating sheet.

Reading Ease Scores and the Average Level of Difficulty  
(Source: Gilbert, 1971)

Syllables per 100 Words	Average Sentence Length	Description	Educational Equivalent	Per cent of Population Able to Read
192	29	very difficult	college graduate	5
169	25	difficult	some college	33
155	21	fairly difficult	high school	54
147	17	standard	grade school	83
139	14	fairly easy	seventh	88

RATING SHEET FOR EVALUATION OF LAND USE PLANNING LITERATURE

Category: Public Appeal

<u>Element</u>	Guide	<u>Rating</u> Excellent, Adequate, Mediocre, Poor	Guide
Cover (Gilbert, p.219)	<ul style="list-style-type: none"> <li>. Pictorial</li> <li>. Meaningful</li> <li>. Provocative</li> <li>. Color</li> </ul>		<ul style="list-style-type: none"> <li>. Dull</li> <li>. Black &amp; white</li> <li>. Detracts</li> </ul>
Overall Design (Gilbert, p.291)	<ul style="list-style-type: none"> <li>. Attractive</li> <li>. Color</li> </ul>		<ul style="list-style-type: none"> <li>. Cluttered</li> <li>. Sprawling</li> <li>. Black &amp; white</li> </ul>
Illustrations (Gilbert, p.291)	<ul style="list-style-type: none"> <li>. Clear</li> <li>. Comprehensive</li> <li>. Meaningful</li> <li>. Plentiful</li> <li>. Revealing</li> <li>. Comparative</li> <li>. Color</li> </ul>		<ul style="list-style-type: none"> <li>. Confusing</li> <li>. Absent</li> <li>. Sparse</li> <li>. Too profuse</li> <li>. Blurred</li> <li>. Black &amp; white</li> </ul>
Text	<ul style="list-style-type: none"> <li>. Easily scanned               <ul style="list-style-type: none"> <li>Headings</li> <li>Subheadings</li> <li>Graphics</li> <li>Bold face type</li> <li>Underlining</li> <li>Italics</li> </ul> </li> <li>. Data and Statistics               <ul style="list-style-type: none"> <li>Used only when absolutely necessary to prove a point</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>. Difficult to scan</li> <li>. Data and statistics add to confusion</li> </ul>



Continued

<u>Element</u>	<u>Guide</u>	<u>Rating</u> Excellent, Adequate, Mediocre, Poor	<u>Guide</u>
Text (Cont.)	. Use of references Kept to a minimum		. Too many references-- overly academic
Page Size (Gilbert)	. 8 1/2 x 11 . Or other easily handled size		. Too small . Too large and bulky
Image	. Positive approach		. Negative approach

Category: Information

Goals	. Clearly stated . Problem defined		. Not stated . Context of piece of literature is unclear
Scope	. Issue/issues explained . Aspects/nature of the issue is clear . Interest groups defined		. Issues and interest groups not made clear
Depth	. Reasons for controversy explained  . Alternative approaches to the issue are clear . Human, environmental & financial costs and benefits described		. Reasons for contro- versy not made clear . Alternatives re: issue not discussed . Costs and benefits to the general public and various interest groups not made clear

Continued

Category: Educational Concepts

<u>Element</u>	<u>Guide</u>	<u>Rating</u> Excellent, Adequate, Mediocre, Poor	<u>Guide</u>
Philosophy	. Man is an integral part of an ecological system		. Man is above/apart from nature
Approach (NSPRA)	. Realistic . Reasons for responsible and intelligent land use explained--with facts		. Overly emotional . Reasons for land use absent
Interdisciplinary	. Land use planning related to politics, community values, engineering technology, architecture and design, etc.		. Land use planning is not viewed as anything more than zoning
Key Points (Gilbert)	. Clear . Repeated . Summarized in closing paragraphs		. Unclear
Interest Level (Gilbert)	. News story type--immediate and of interest		. Drags
Lead Paragraph (Gilbert)	. An interest grabber		. "So what else is new?"
Number of Topics Covered (Gilbert)	. 1000-2000 words per topic 4-8 double spaced pages per topic		. Extremely long or short

Continued

Element

Guide

Rating  
Excellent, Adequate,  
Mediocre, Poor

Guide

Reader Parti-  
cipation  
(Gilbert)

- . Encouraged via  
writing  
drawing  
discussing  
proposing action

- . Not encouraged

Reading  
Difficulty  
(Gilbert)

- . Appropriate to audience  
Re: Reading ease formula
- . Standard level of difficulty  
Re: Reading ease formula

- . Inappropriate
- . Too difficult

Appendix D

Results of Questionnaire Comments Content Analysis

Suggestions (35)

Program (17)

- Get down to specific problems of on the ground situations. (9)
- Need a better understanding of how private rights are affected by planning. (4)
- Show more films (1)
- Need to consider all factors, economic, social, etc. ---- not just Natural Resources. (1)
- Need more professional planners to discuss these problems. (1)
- More facts regarding the actual detrimental effects of haphazard development and lack of foresight. (1)

Follow-up (16)

- More workshops. (13)
- Extension course on land use planning should be offered. (1)
- More follow-up reminders after workshops. (1)
- Require all real estate developers to take similar workshops as a prerequisite for licensing. (1)

People (2)

- Geared more to the average citizen----housewife, working man,---- voting public must be more aware of planning needs. (1)
- Need broader community representation. (1)

Opinions (35)

Definitions of the Problem (23)

- Real problem is traditional attitudes and resistance to change. (4)
- Too many people in Utah feel that over crowding, pollution, etc. are such distant problems that they need not be concerned. (4)

- Basic problem is human greed--people act in their own self interest--no workshop of this nature will solve that problem. (Don't quit though at least you leave some people with no excuse.) (3)
- Need to consider the needs and problems of all segments of the population, not just planner's theories. (3)
- Too many government controls will stifle individual initiative and freedom. (2)
- Our problem is haphazard and unorganized growth. (2)
- Serria [sic] Club and other strong environmentalist groups are preventing needed growth. (1)
- So far no land use ordinances, with teeth, exist to protect natural resources. (1)
- People in different occupations, public positions, or from rural or urban areas all saw problems in different light, or not at all. (1)
- Some people want no solution and see no problem. (1)
- Those who have the most to learn will not attend meetings of this type. (1)

General (12)

- Not involved in land use planning. (7)
- I have not referred to the workbook but I have used the lessons---currently using soil surveys to implement this type of planning here. (1)
- Success of workshop will depend on how much was retained by local officials. (1)
- Few changes in attitudes since workshops---all was left in the meeting room. (1)
- Planning gets rid of a closed door or do nothing approach. (1)
- Much news on the environment is based on poor information. (1)

Criticism (35)Group Discussions (10)

- Group at table too diversified. (3)
- Not much interaction in my discussion group. (1)
- Too much talking around the problem. (3)
- Group at table was not heterogeneous in interests or assignments. (1)
- Not enough time for group discussions. (2)

Location (4)

- Hold in a more appropriate place. (3)
- The distance kept many people away. (1)

Typical Problems (3)

- Typical problems did not apply at all. (2)
- Did not agree with solutions suggested for the typical problems. (1)

General (15)

- Momentum of the workshop dropped sharply after lunch. (1)
- Come up with the solution. (1)
- Too much material presented in too little time. (1)
- Directed too much toward state rather than local control. (1)
- Too much politics. (1)
- The problems are evident--but how to go about solving them and using the information presented seem to be far apart. (1)
- Get more city and county leaders involved and not so many agency people. (1)
- Workshop centered on private land problems, since much of Utah is U.S. Government owned, Federal planning efforts should be incorporated. (1)
- Have not found booklets useful. (1)
- Not enough everyday ordinary people involved. (1)

- We need to develop essentials for Utah---such as water--let's not be too rigid about natural resources and facts. (1)
- Workshop was OK but tried to deal with too wide a gap. Experienced planners had little to gain. Folks with no planning background were snowed. Some in the middle gained a great deal. (1)
- Questionnaire should have come earlier.(2)
- Workshops must relate more to the comprehensive nature of planning decisions---more to it than just a fault zone or a flood plan. (1)

#### Positive Remarks (26)

##### Program (23)

- Able to identify with the "typical" land use problems. (7)
- The overlays of natural resources information was a helpful graphic illustration of the factors involved in considering various types of development. (6)
- Interest and participation at workshop was good. (2)
- Enjoyed the workshops. (2)
- Workbook a good primer to show basic ideas and problems. (2)
- Helpful in defining problems. (2)
- People gained. (1)
- Helped me to recognize the problems of a lay citizen in understanding planning and zoning. (1)

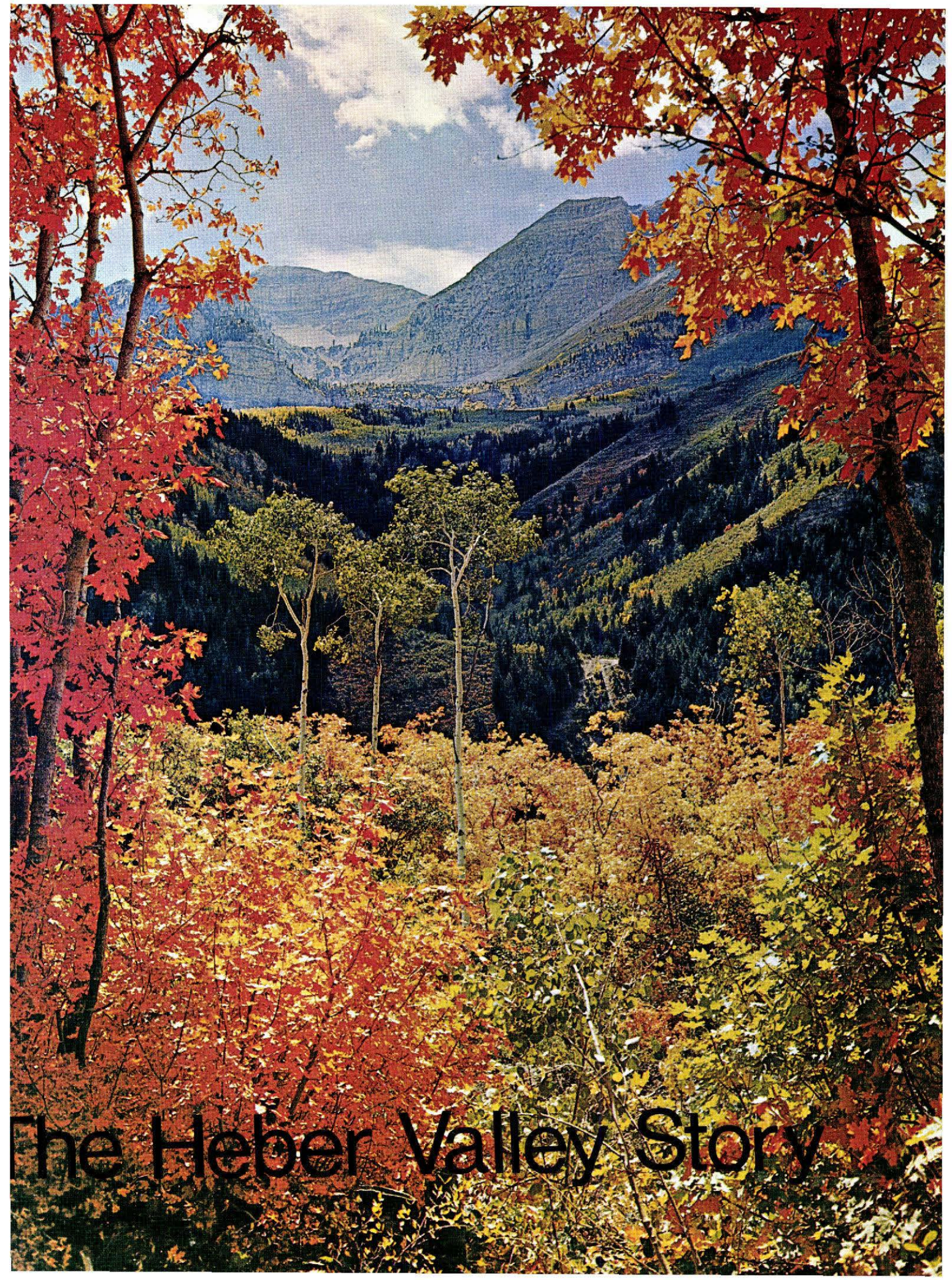
##### Follow-up (3)

- I heard many real estate developers comment that they better understood the reasons for good planning and zoning after the workshop. (1)
- Used books to consider new zoning proposals. (1)
- Used but did not relate well to my line of work. (1)

Appendix E

The Heber Valley Story and Workbook in Land Use Planning





# The Heber Valley Story





Written by Dale Berg, Wasatch County Planning Office, and Don Drage, Soil Conservation Service, and edited by Joan K. Shaw, Editor, College of Natural Resources, under the direction of C. M. (Cy) McKell, Director, Environment and Man Program, Utah State University, and in collaboration with:

Lucy Ascoli, Utah State University Extension  
Gerald Hansen, Soil Conservation Service

The Environment and Man Program operates under a 3-year grant from the Rockefeller Foundation. Publication of *The Heber Valley Story* was partly financed by the Intergovernmental Personnel Agency through funds provided under Title VIII HUD Act of 1969, Title I, Higher Education Act of 1965, and IPA-1970.

# FOREWARD

Land use planning in the United States is hampered by a lack of both natural resource data and the adequate consideration of community goals that local government and planners need to make wise land use decisions. As a result, many comprehensive plans costing thousands of dollars and hundreds of man hours to produce lie gathering dust on the shelves of county planning offices.\*

The Heber Valley Natural Resource Inventory and Evaluation, initiated in May 1971, is a pilot study aimed at remedying this situation. It is a process by which local government and decision makers work closely with natural resource professionals in assembling the natural resource facts needed to formulate flexible and realistic land use plans. Already the Heber Valley experience is affecting the way Utah counties are drawing up their plans, ordinances, and regulations: they are beginning to search out natural resource information to guide them in making decisions.

The study has also provided fresh insight into the organization and leadership that local government can offer in such an undertaking. It has generated new ideas on how to effect involvement and interaction among decision makers, resource professionals, and citizens. Most importantly, it has uncovered ways to systematically collect, organize, interpret, and display natural resource data so it is understandable to local government, citizens, and development interests.

A resource inventory and evaluation is particularly valuable for areas like Heber Valley where unplanned development may be causing problems but has not progressed to the point where irreversible trends have become established. It is also valuable as a means of establishing opportunities and constraints in a planning area to which leaders are trying to attract people and development.

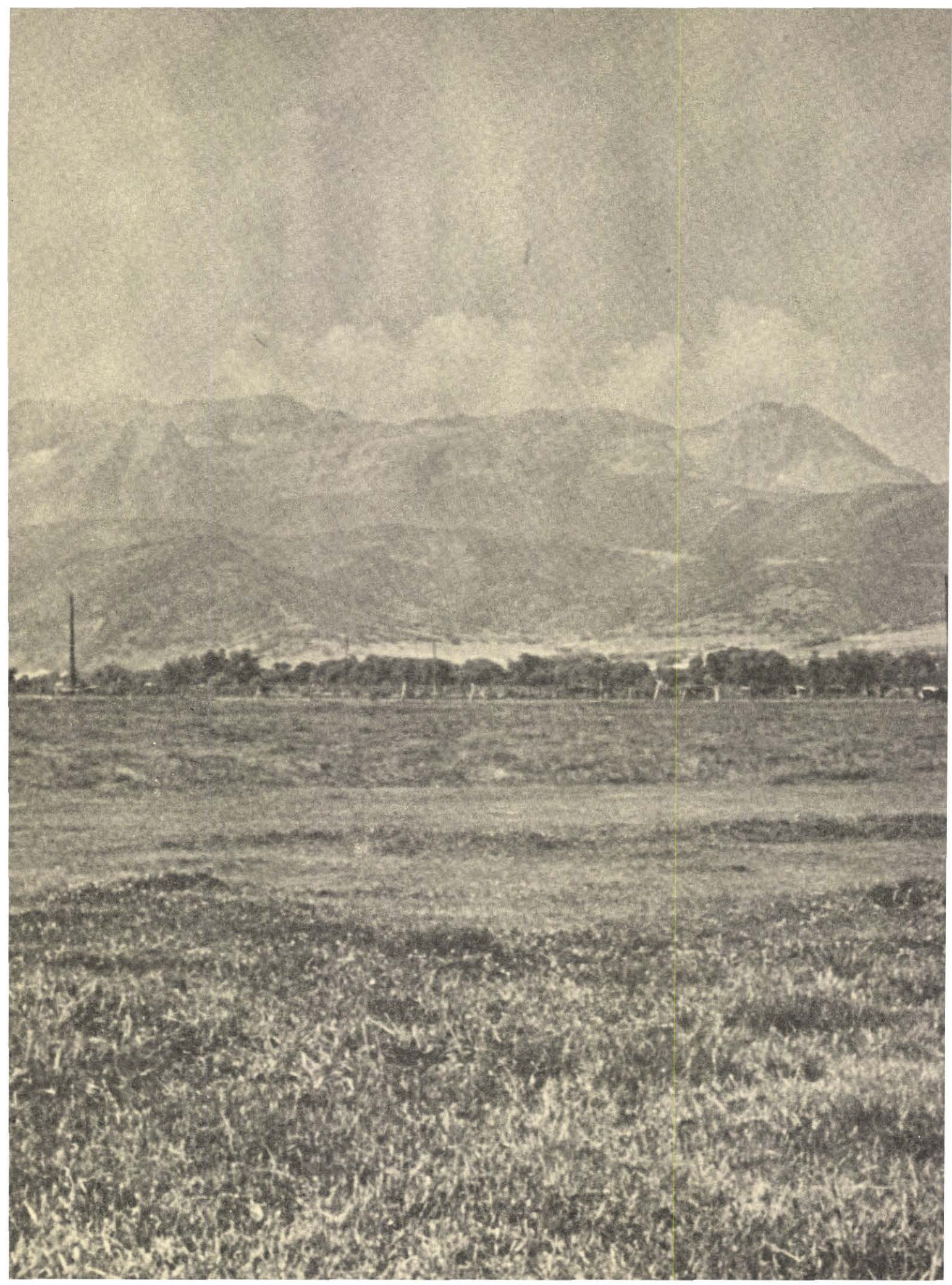
The process described in this booklet is not intended to replace inventories being conducted under current programs such as river basin studies. It is offered instead as an example of how the people of one planning area collected existing resource data and reduced it to the level of common understanding necessary to produce workable land use plans.

The Heber Valley experience in no way discounts the value of plans already made. Counties which already have master plans can use the natural resource inventory process in the implementation of their plans and in the continual updating of their goals and policies.

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\*Committee on Interior and Insular Affairs, 92nd Congress, Committee reprint (April 1972). Background papers on past and pending legislation and the roles of the executive branch, Congress, and the states in land use policy and planning. Excerpts from a September 1970 speech by Senator Henry M. Jackson.







# THE HEBER VALLEY STORY

## I. The Situation

Heber Valley, surrounded by lightly forested mountains and dotted by lakes and picturesque farmland, is located just over the Wasatch Range from Utah's populous Salt Lake-Provo area. This valley is one of the most beautiful in the entire Intermountain region.

Fresh running streams tumble from mountains dotted with small lakes and reservoirs. Large herds of mule deer are scattered through the high mountains in the summer time and drift back into the foothills and valley in winter. Snow skiing, cutter racing, snowmobiling, ice skating, and tubing are enthusiastically enjoyed by residents and visitors alike.

By the late 1960's, Heber Valley was attracting a wide variety of developers, speculators, and investors. Some of them were indiscriminately gouging out the hillsides, destroying vegetation, and establishing poorly located roads. Year-round dwellings and summer homes were being built in highly hazardous fire areas and on steep slopes.

In the lowlands, streams were being polluted by animal waste drainage, agricultural chemicals, and improper sewage and solid waste disposal. Fresh water streams, springs, and other potable water sources were often left wide open to such pollution.

The inevitable deterioration of the valley's beauty and quality of living became apparent and local county and municipal governments began looking for solutions.

## II. The Request for Help

While this was taking place, representatives of the Soil Conservation Service were exploring new ways to help local government and planners gain a better understanding of basic natural resource data and its function in land use planning. The idea of making a cooperative resource inventory for a selected land area experiencing development pressures was discussed by the Soil Conservation Service leadership and the State Planning Coordinator. The name of a possible area for the inventory came up: Heber Valley, located in Utah's Wasatch County. The valley was considered rather than the entire county because it was a natural drainage basin and the greatest pressures for development were there.

Both the idea for the inventory and the area suggested seemed promising, so other state and federal resource and planning agencies, private planners and engineers, university representatives, and environmental organizations were interviewed to determine their interest in this type of cooperative effort. All of the groups were enthusiastic about participating.

The idea of a pilot study in resource inventory and evaluation in Heber Valley appealed to the Wasatch County Commissioners, and a joint letter of request for the inventory was sent to the State Planning Coordinator by the Chairman of the Wasatch County Commission and the Chairman of the Wasatch County Soil Conservation District.

It was important to have the request for help originate at the local level. Only in this way would the project actually belong to the Heber Valley people and receive their full support. Throughout the inventory as much as possible of the inventory's coordination and implementation was placed in the hands of the local people.

Resource professionals with inventory responsibilities had to have administrative approval to fit inventory activities into their regular work schedules. The formal request gave the inventory a high priority by agencies and institutions in their scheduling.

### III. Getting Organized

The Wasatch County Commission named Russell Wall, the Commission Chairman, as the local coordinator for the Heber Valley inventory. Mr. Wall in collaboration with technical advisers then chose a technical coordinator and a local citizen teammate for each of the twelve resource disciplines (such as soils, hydrology, and geology) to be covered in the inventory (Figure 1). The technical coordinators were to lead and coordinate all the resource professionals and their assistants in their own disciplines. His citizen teammate was to collaborate with him in selecting activities that local citizens could participate in to gain a clear understanding of the project. These twelve teams along with the local coordinator made up the Resource Inventory Committee.

Some kind of time frame needed to be worked out for completing the inventory, tentative as it turned out to be. If the inventory could not be completed in six months to a year, it would have evolved into a research study of no immediate value to Heber Valley. It was also necessary that the inventory be carried out in a logical sequence. Information on soils, for instance, are basic to all other resources and must be collected first. Hydrologic interpretations are dependent on soils, vegetative, and often geologic criteria.

This time frame was worked into a schedule showing the overall sequence of the inventory and target dates for major inventory elements. Figure 2 is a list of the activities programmed on the original schedule.



Figure 1. Organization of the Twelve Resource Divisions in Heber Valley's Natural Resource Inventory and Evaluation.

Sponsors: Wasatch County Commission  
Wasatch County Soil Conservation District

Coordinator: Russell Wall, Chairman County Commissioners

Teams

<u>Inventory Activity</u>	<u>Technical Coordinators</u>	<u>Citizen Chairmen</u>
Basic Maps and Materials	I. Dale Despain Private Planning Consultant	Duane Price, Chairman County Planning Commission
Soils	Delbert Hansen District Conservationist	Curtis Muir, Chairman Soil Conservation District
Hydrology	Jim Christensen State Engineers Office	Sherman Giles Water Users Association
Geography	Richard Jackson BYU University	Joyce Dudley PTA
Vegetative	Earl Christensen BYU University	Leon Hardcastle County School Board
Geology	James Bair BYU University	Guy Olpin, President Wasatch LDS Stake
Recreation	Stan Elmer Utah State Division of Natural Resources	Davis Hull and Sheila Ellertson Student Council
Pollution	Howard Hurst State Division of Environmental Health	Larry Duke, Chairman County Health Board
Environmental Education	Richard Peterson State Office of Public Instruction	Kent Ellertson Northeastern Utah Educational Service Center
Fish and Wildlife	LaVar Ware Fish and Game	Verl Rothlisberger Local Rod and Gun Club
Local Involvement and Information	Paul Daniels County Agent	Donna Thacker, President LDS State Relief Society
Data Collection and Project Library	Merrill Library and Learning Resources Center Utah State University	County Extension Agent's Secretary



Figure 2. Activities on Original Schedule for Heber Valley's Natural Resource Inventory and Evaluation.

- 
- 
- I. Organization:
    - a. Selection of inventory headquarters
    - b. Selection of local coordinator
    - c. Selection of technical coordinators
    - d. Selection of citizen chairmen
  - II. Preparation of written objectives and inventory guide (Figure 3)
  - III. Meeting to explain objectives, schedules, and responsibilities to inventory participants (Page 6)
  - IV. Data Collection
    - a. Preparation of bibliographies
    - b. Indexing and cataloging
    - c. Placement in library
  - V. Schedule of work meetings
  - VI. Schedule of Advisory Council reviews

As inventory data was completed it was reviewed with the council to provide them with resource facts for setting goals and policies (Page 18)
  - VII. Workshop

For the purpose of reviewing all the sections of the inventory and provide opportunity for interaction among the different disciplines.

To identify additional composite overlays needed.

To resolve the type of publication and distribution of inventory data to be used.

The technical coordinator for each natural resource group prepared schedules for their own activities to enable them to see the overall job and plan things in proper sequence.

To set the project in motion, the Wasatch County Commission and the Soil Conservation Service sent out the invitations for a one-day meeting to all state and federal resource agencies, the State's three universities, school officials, and local planners and engineers in order to explain the proposed study.

The Soil Conservation Service prepared a map of Heber Valley on 7½ minute quadrangle sheets locating existing and proposed developments to acquaint these groups with the extent of the valley's problem.

Questions that needed answers were posted on the Courthouse walls to give direction to the open discussions and to promote involvement of everyone attending. The various groups were each asked how they could provide assistance.

Representatives from the local schools were asked what resources they could contribute to the project, what kinds of information gathered for the inventory would benefit them in classroom teaching, and how they were going to be involved to assure that they got what they wanted.

Utah State University Extension representatives were asked how trained Extension specialists could help in the project, what kinds of specialists Utah State could provide, and what other resources it may have available.

Representatives from Brigham Young University were asked what information the University could put into the Heber pilot project, what resources it had to commit, and how it could schedule its activities with the Heber project.

Representatives from the University of Utah were asked if University personnel could help define threats to Heber Valley's air quality stemming from the types of future development that may occur and what resources they could commit to the program.

Resource agencies, such as the Forest Service, the Utah Division of Wildlife Resources, the Utah Department of Natural Resources, and the United States Geological Survey, were asked about existing basic resource inventory data, what additional data were needed, and what interpretations and summaries were needed to make this material readily understandable and usable by citizens, professional planners, and engineers.

Local contractors and developers were asked to specify what kinds of basic natural resource data they needed for their planning and what other information they needed to better utilize the general capabilities of the lands in the Valley.

The environmental health agencies were asked to interpret their regulations in terms of the soils, vegetative cover, ground water, and streams (systems) so as to provide some guidance for waste disposal and environmental health. They were also asked to outline what help they could offer to the project.





Representatives from the Merrill Library and Learning Resources Center at Utah State University were asked to help the group to assemble basic data, organize it, and index it. They were also asked to help establish a local natural resources library.

After much deliberation, each group wrote a summary of data and assistance that it could provide, along with additional questions needing answers. These questions included: What lands are best suited for recreation, winter and summer sports, camping and outdoor living? What lands are best suited for agriculture, grazing, and sanitary landfill? What lands should be avoided in housing development—for instance those located in fault zones and slippage areas and within deer winter ranges? What are the timber resources in the area and how should they be managed to prevent watershed damage? What are the major resources available for tourism and recreation?

Shortly after this one-day meeting, a public meeting was held to bring the project to the citizens of Heber Valley. The project was explained to them, the local coordinator, the technical coordinators and the citizen teammates were introduced, their duties were outlined, and schedules were set.



## IV. Letting the People Know

Early in the organization of the Heber Valley project, the Natural Resource Committee formulated guidelines for conducting an inventory that would have the full support and interest of the citizens. These guidelines were to prove their worth as the project moved forward.

There were two closely related concerns. First, it was essential that an intensive information and education program be followed throughout the period of the inventory in order for the citizens to gain an understanding of natural resource constraints and potentials. Citizens will support a sound landuse program if they understand the facts!

Second, a wide cross-section of local citizens had to be involved to have everyone in the area satisfied with the way the resources were being managed and with the land use regulations developed.

To help the process of education and involvement, tours were organized to show citizens existing problems of development and some of the proposed developments right at the sites. Public meetings were held, and television and radio personalities led panel discussions and received public opinion polls about the valley's problems, goals, and policies.

Youth leaders took problems to their fellow students and asked for their ideas. One result was a recreation map prepared by students containing locations of their favorite haunts—areas they felt should be preserved from development.

One teaching tool that was recommended for citizen awareness and one that has proven especially valuable was a narrated slide presentation showing the natural resources of Heber Valley. This presentation, called *Yours Today, What's Tomorrow?* showed Heber Valley's general landscape characteristics, its scenic attractions, delicate areas in the valley that were vulnerable to any kind of development, the Valley's hazard areas where development should be avoided, and other physical characteristics that had to be considered when setting goals for land and related resource use. This teaching tool probably did more than any other one thing to cause citizens to see and understand why the natural resource inventory was so necessary.

## V. Finding Out What the People Want

A better understanding of the constraints and potentials of an area's natural resources can lead to wiser and more specific objectives, and these are essential not only to give the inventory direction, but to have the citizens behind it. An effective land use plan for any area must be based on the values of the people who live there.



In Heber Valley, the people were sure of one thing: they wanted no part of the scarred mountains, mudslides, and flooding that would result if poorly located roads and haphazard housing development continued at the rate it was going at that time. As the citizens increased their understanding of the valley's potentials, this first broad objective grew into many more specific ones.

Commissioner Wall stated the overall objective simply: "First we have to find out what our citizens want; second, what they can have." The Heber Valley inventory was to uncover the facts on the area's natural resources—how they could be used and managed. These facts were then relayed to the citizens so they could decide what among their wants they could actually have.

## VI. Making the Inventory

An inventory guide was developed in the first two weeks of the project that showed data needed for comprehensive plan development, natural resource elements to be inventoried, sources of technical expertise that could be called on to do each inventory and its evaluative work, and possible kinds of interpretive materials that could be used for inventory description. Figure 3 is a summary of Heber Valley's original inventory guide.

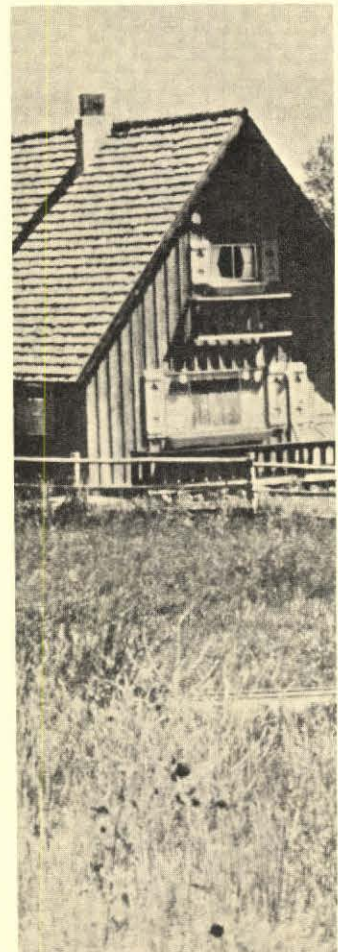


Figure 3. Summary of the Original Inventory Guide for Heber Valley's Natural Resource Inventory and Evaluation

<u>Materials and Data</u>	<u>Sources of Help</u>	<u>Possible Kinds of Interpretations and Evaluations</u>
I. Maps		
Base, Aerial Mosaic	Soil Conservation Service	Selected Scale: 1:24,000
7½' Quadrangle	Geological Survey, Department of Interior	Scale same as aerial mosaic
Line Maps	State Highway Department	Different kinds of line maps used for interim work maps. Scales ½" and 1" to mile.
II. Basic Data		
Existing Improvements Present land use Land ownership Special districts Planned Projects Historical Interest Points	County Planner and Commission County Planner and Agencies County Recorder and Agencies County Assessor and Recorder Agency Representatives Utah Historical Society Local Citizens	Overlays on 1:24,000 scale were used in both the inventory and comprehensive plan activities. The private planner developing the Wasatch comprehensive plan and local citizens assisted. Areas acquired by developers were mapped to show extent of problem.



<u>Materials and Data</u>	<u>Sources of Help</u>	<u>Possible Kinds of Interpretations and Evaluations</u>
III. Natural Resources, Potentials and Limitations		
A. Soils	Soil Conservation Service Utah State University	<p>The Wasatch Soil Survey was used here. Mapping units were delineated on the base aerial mosaic. These delineations showed areas with soils having common characteristics and qualities, surface texture, depth of developed soil, character of subsoil, permeability, surface and internal drainage, depth of water table, stoniness, degree of slope, and degree of erosion.</p> <p>Interpretive overlays were prepared to show limitations and suitability for agricultural uses; dwellings, roads and streets; septic tank filter fields and areas for animal waste; sewage lagoons and reservoirs; sanitary landfill sources for sand, gravel, road fill and top-soil; range, woodland and wildlife habitat; recreation; prime agriculture lands and areas identified for preservation, and pollution and sediment source areas.</p>

Materials and Data

B. Geology

Sources of Help

Division of Water Resources  
Geological Survey, Department of  
Interior  
Utah Geological and Minerological  
Survey  
Universities

Possible Kinds of Interpretations and  
Evaluations

Most data was obtained from the technical publication, *Water Resources of the Heber-Kamas, Park City Areas; North Central Utah and the 1963 State Geologic Map Series*. Interpretive overlays were prepared to show unique geologic features fault zones, slide areas, ground water recharge and storage areas, and mineral sources.

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Materials and Data

C. Vegetation

Sources of Help

Forest Service  
Division of State Forestry and  
Fire Control  
Division of Wildlife Resources  
Extension Service  
Bureau of Land Management  
Local Ranchers

Possible Kinds of Interpretations and  
Evaluations

The Wasatch Soil Survey map was used as the base map. Vegetative data from each agency was correlated and organized on the basis of range sites and condition. Interpretive overlays prepared were prime grazing areas, deer winter range, fire hazard areas, and commercial woodlands. Criteria developed can be used to identify other considerations—prime watershed areas, critical erosion and sediment producing areas, areas suited for revegetation, and other special use areas.



Possible Kinds of Interpretations and  
Evaluations

Sources of hydrology data were the state water plan, water development project studies, the ground water study, water yield and runoff data, data from local irrigation companies, and water quality studies. The interpretive data developed were potential storage sites, flood plains, stream systems and ground water conveyance systems to accommodate agriculture during the agri-urban transition and to ultimately meet urban demands.

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E. Recreation

State Parks and Recreation  
 Division of Natural Resources  
 Forest Service  
 Soil Conservation Service  
 Wasatch Schools  
 Soil Conservation District

Existing recreation inventories were used here. Current plans for recreation development were studied and citizen needs and desires were explored. The high school studentbody mapped favorite haunts to be preserved for future development and enjoyment. Potentials for all types of recreation development were also mapped. Recreation overlays were interfaced with other overlays showing

Materials and Data

Sources of Help

Possible Kinds of Interpretations and Evaluations

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flood plains and similar unsafe areas for housing to assess possible recreation uses.

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F. Pollution Abatement

Division of Environmental Health  
Environmental Councils and  
Organizations  
All Natural Resource Technician  
Groups  
Citizen Advisory Committees  
Other Citizen Groups

Most interpretive overlays had to be completed and goals and objectives set before present and future pollution trends could be identified. The final land use map will be tested to determine possible pollution problems that can develop. Sub-air sheds, air drainage and inflow patterns, and air stability and inversions will be mapped. Water sources—streams, reservoirs, ground water—vulnerable to pollution under certain types of development will be mapped. Sediment source areas that threaten stream pollution are mapped. Measures to avoid sedimentation problems during construction will be enforced.

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<u>Materials and Data</u>	<u>Sources of Help</u>	<u>Possible Kinds of Interpretations and Evaluations</u>
G. Fish and Wildlife	Division of Wildlife Resources Forest Service Division of State Forestry and Fire Control Soil Conservation Service	Prime fish and wildlife habitat areas were inventoried and overlays prepared showing big game winter and summer ranges. Fishing waters were classified based on a numerical rating for aesthetics, availability, and productivity. Criteria for management of upland game bird habitat was provided along with a listing of wildlife species common to Heber Valley.
H. Land Use	All Professional and Local Planning Interests	Interpretive overlays were prepared showing areas best suited for housing, recreation, industrial, wildlife, agriculture, open space, range, woodland, transportation, scenic attractions, as well as those showing areas of constraint unsafe areas and areas that will be lost without adequate planning such as areas of natural beauty, unique recreation areas, wildlife habitat, and open space.
I. Library	Utah State University Merrill Library and Learning Resources Program	The USU Library helped assemble basic data, organize it, and index it. They also helped establish the local natural resources library.



Progress meetings for the Natural Resource Committee were held every other Thursday. At the initial meeting, each technical coordinator and his citizen teammate were assigned to search out all existing resource data in their respective disciplines related to Heber Valley, prepare a bibliography of all they found, and make some reviews on their contents. They were to bring the results of this search to the next progress meeting scheduled two weeks later.

The progress meetings were held in the County Planner's office in the County Courthouse. The library was located at the same place, easily available to the public as well as to local officials and planners. Representatives from Utah State University's library were present at the first two progress meetings to instruct the County Agent's secretary in receiving, cataloging, and indexing the enormous amount of material that poured in. Material for this library is still being received as new resource data are generated.

The meetings every other Thursday were taken up with reviews of newly generated resource data interpretations, exchanges of ideas, and requests for help. These meetings were valuable for the bond of understanding they created between professionals in different resource disciplines. Specialization tends to narrow the professionals' views; but communication between them is essential for a unified picture of an area's natural resources.

The inventory was focused on already existing data. The teams were able to gather a surprisingly large amount of this data from material such as 1) soil surveys, 2) groundwater and other geologic information, 3) water quality studies, 4) water supply and quality data, 5) climatic data, 6) vegetative cover surveys, 7) recreation inventories and plans, 9) wildlife habitat inventories, 10) flood plain studies and maps, 11) flood histories, 12) potential water impoundment sites, 13) river basin studies, 14) watershed investigations and work plans, 15) sewer and water plans, and 16) city and county master plans.

Data recognized as needed but not yet available were scheduled for future investigation—for instance, air pollution threats could not be defined until the inventory was essentially complete and the comprehensive plan well on its way. Only then could proposed housing development and industrial parks be pinpointed and considered in relation to the area's resources. Other basic data needed to be refined and a common terminology and mapping criteria agreed upon for surveys made in the past.

Selection of proper mapping at the beginning of the inventory was one of the Natural Resource Committee's most important steps. As indicated in Figure 3, an aerial mosaic at 1:24,000 scale was selected for the base map. Inventory participants carefully weighed this decision. Their goal was to select a scale commonly used by resource people in their daily work and would therefore require the least investment in time to transpose data from existing maps to Heber Valley's inventory and interpretive maps. The committee also recognized the need for state-wide standardization of maps used in resource inventory work.







## VII. Analyzing, Interpreting, Informing

The evaluation and interpretation of the valley's natural resource data brought the inventory to life. Only when the various individual areas of the inventory were related to the whole system could citizens see what the information collected really meant—that in every area there are unique and delicate resource qualities that could very easily be lost if uncontrolled development were permitted.

About six months after the Heber Valley inventory was underway, the Valley's Planning Advisory Council was appointed by the County Commission. This Council consisted of 100 citizens including County Commissioners and mayors, members of city and town councils, representatives from special districts such as water and sanitation districts, representatives of special interest groups such as recreation, agriculture, and real estate, and members of the Valley's communities.

The Planning Advisory Council was assigned the task of formulating goals, decisions, and policies for the creation of a comprehensive master plan for Wasatch County. The natural resource information needed for this formulation was interpreted to them by the resource professionals.

It was very important that the information presented to the Council was clear and understandable. Interpretive map overlays and supporting narrative and statistical criteria were the tools for accomplishing this goal.



The Soil Conservation Service's **Stop-Go Method** of mapping data was one type of tool used. In these maps, limitations of certain land use were clearly defined in solid colors—red for severe limitations, yellow for moderate limitations, and green for slight limitations.

Transparent resource maps in varying shades of gray were also used. These maps were overlaid in different combinations on base maps to show constraints and optimum land uses that single overlays could not show. This process is an excellent means of showing facts that demand simultaneous consideration.

In Figure 4, an overlay shows soil limitation for dwellings. This map overlays a base map of the valley and surrounding foothills where summer home development is a current consideration. This overlay exposes graphically the limitation and suitabilities of a land area under developmental pressure.

## VIII. Considering Alternatives

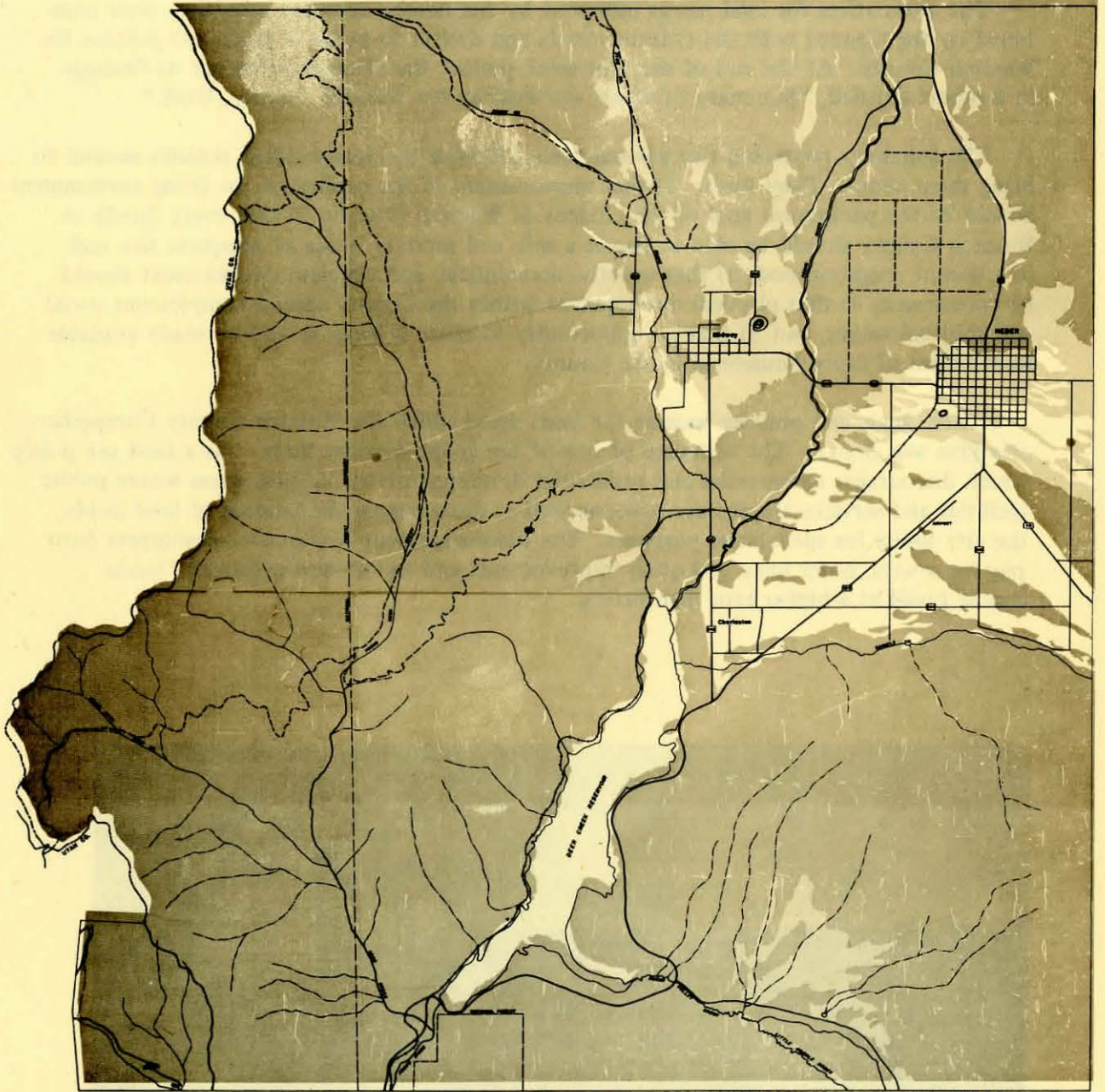
Using the Stop-Go maps, pictures, drawings, and field trips, the resource professionals showed the Planning Advisory Council how the inventory helped to identify land use and resource management alternatives. The Council was divided into five work groups dealing individually with land use, transportation, public facilities, conservation and renewal, and housing development. Each group was chaired by a County Commissioner or mayor.

These groups met weekly for nine weeks to review information presented to them by the professionals, study basic planning principles, and consider the needs of the valley's citizens.

Usually, the highest and best use of a certain land area was considered as the first alternative. For instance, prime agricultural and watershed lands were considered areas to be preserved as they stand. The most immediate concerns in Heber Valley—an area facing an upsurge of growth—were lands suitable for housing and recreation. Lands that did not conflict with other prime uses and offered no constraints were considered for housing. Potential recreational areas were designated with special consideration of the land's ability to withstand recreational activity and provide prime wildlife habitats.

Throughout this process the Council and the resource professionals worked closely together, giving and exchanging information and questions, and constantly keeping in mind the original objectives of the inventory.





SOIL LIMITATION FOR DWELLINGS HEDER VALLEY, Sheet 3 of 6

SHEET 3 OF 6

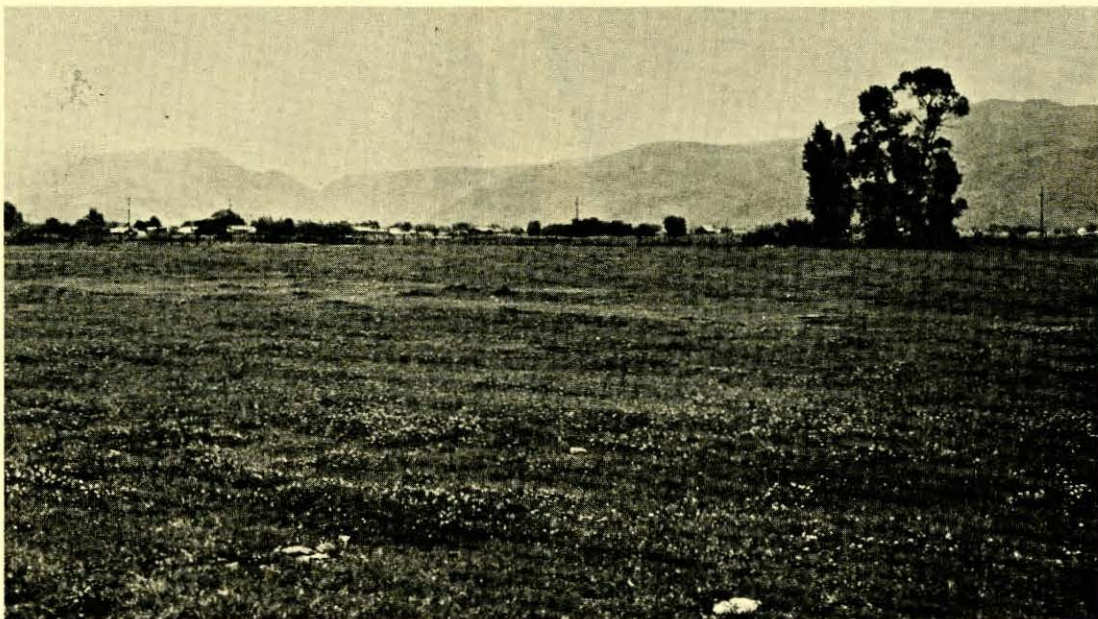


## IX. Making Decisions

The alternatives for land use as indicated by the natural resource inventory were combined by the Council with the citizens' needs and desires to arrive at goals and policies for Wasatch County. At the end of the nine-week period, the Council published its findings in a report entitled, "Summary of Goals and Policies for Wasatch County, Utah."

The summary contained five general goals followed by clearly stated policies needed to bring them about. They were: 1) that improvement in the quality of the living environment should be the paramount goal of the citizens of Wasatch County, 2) that every family in Wasatch County should be able to live in a safe and sanitary home of adequate size and in a decent neighborhood, 3) that orderly, economical, and efficient development should be encouraged, 4) that physical development within the County should complement social and spiritual values, and 5) that an opportunity to make a living should be made available to the head of every household in the County.

These goals and policies became the basis upon which the Wasatch County Comprehensive Plan was drawn. The outcome of one of the goals—number three—was a land use policy which discourages commercial and residential developments in outlying areas where public facilities and services are not available, as well as discouraging the holding of land inside the city limits for speculative purposes. The discouragement is effective—developers must pay for sewers, water lines, and other improvements and vacant land within city limits is now taxed at a higher rate than before.





## X. Putting the Plan to Work

Wasatch County fathers admit their situation more nearly approaches the ideal than is likely in any other county in the State. The Planning Advisory Council had the valley's natural resource inventory to guide them from the beginning in formulating realistic goals and policies on which the County's comprehensive plan was finally based.

Most importantly, the County used the natural resource data to update their zoning ordinance. The ordinance requires land developers to go to the natural resource data themselves to evaluate the impact their plans may have on natural features and the surrounding development. After this evaluation, the developer submits for approval a detailed **environmental impact statement** which is prepared by a qualified professional using the valley's natural resource data (Figure 5).

The statement covers all aspects of developmental hazards including the control of erosion, reseeding of cuts and fills, prevention of fire, prevention of the accumulation of weeds and debris and destruction of vegetation, control of dust, disposal of surface water, and disposition of flood hazards.

The new requirements truly put the initiative into the hands of the people, developers included. The zoning ordinance stops saying, "No, you can't do that," and starts saying, "Look at the natural resource facts and see how you can do that."

The question has been asked if counties that have already developed their comprehensive plans should bother now to develop natural resource inventories. The experience in Heber Valley provides a fairly clear answer. The people there have found that there must be a logical approach to classifying land according to the uses for which it is best suited as well as managing other related natural resources. Since our environment is the product of a very intricate interrelationship of natural resources, there is a definite need for a systematic inventory of them.

Neglect in considering all of an area's natural resources when preparing plans and ordinances often proves costly to everyone—government, citizens, and the developers themselves—since natural resource facts are important building blocks of good land use planning.

The stumbling block in gathering natural resource facts before planning has been the sheer magnitude of the job. Heber Valley has shown, however, that a cooperative effort can bring together all the resource facts for an area in a relatively short period of time.

Counties that already have a comprehensive plan still need the facts that a natural resource inventory can give them. Comprehensive plans need periodic updating and ordinances and regulations need revising. An on going, dynamic, natural resource inventory coupled with an awareness of the changing wants and needs of an area's citizens can only strengthen and help implement existing comprehensive plans.



# ORDINANCE NO. 72-6

An Ordinance amending the Zoning Ordinance of Wasatch County, Utah,

WHEREAS, the health, peace, safety, morals, convenience, order, prosperity and general welfare of the present and future inhabitants of Wasatch County, Utah, will be promoted by revising the Zoning Ordinance of Wasatch County, Utah, now therefore.

THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF WASATCH ORDAINS AS FOLLOWS:

Section 1. That the Zoning Ordinance of Wasatch County, Utah, be and the same is hereby amended, modified, and changed to read as follows:

### 10.12.0100 TITLE

This ordinance shall be known as, and shall be entitled, THE REVISED ZONING ORDINANCE OF WASATCH COUNTY, UTAH, and may be so cited and pleaded.

### 12.0101 Intent and Purpose

It is the intent and purpose of the Board of County Commissioners of the County of Wasatch, State of Utah, to promote the health, safety, morals, convenience, order, prosperity, and general welfare of the present and future inhabitants of Wasatch County of guiding development within said County in accordance with a comprehensive plan, which plan has been designed:

- A. To encourage and facilitate orderly growth and development in the area.
- B. To create conditions favorable to prosperity, civic activities, and recreational, educational and cultural opportunities.
- C. To promote efficient and economical utilization, conservation, and production of land, water and other resources and facilities.
- D. To facilitate adequate provisions for transportation, water, sewerage, schools, parks, and other public requirements.
- E. To reduce the waste of physical, financial and human resources resulting from excessive scattering of population.
- F. To secure safety from fires, floods, traffic hazards, and other dangers.
- G. To lessen congestion in the streets, prevent the overcrowding of land and provide adequate light and air.
- H. To avoid or lessen the hazards to persons or damage to property resulting from the accumulation or runoff of storm and flood water.
- I. To stabilize and improve property values and,
- J. To promote a more attractive and wholesome environment.

### 02.0503 Apartment House (Multiple Dwelling)

Any building or portion thereof which is designed, built, rented, or leased, let, or hired out to be occupied or which is occupied as the home or residence of three (3) or more families living independently of each other and doing their own cooking on the premises.

### 02.0504 Apartment - Sleeping

One or more rooms designed for sleeping purposes and containing no cooking facilities.

### 02.0505 Boarding House

A building containing not more than one kitchen where, for compensation, meals are provided pursuant to previous arrangements on a daily, weekly, or monthly basis as distinguished from a hotel, cafe, or rooming house.

### 02.0506 Building

Any structure built for the support, shelter, or enclosure of persons, animals, chattels, or property of any kind.

#### A. Building, Accessory

A subordinate building, the use of which is incidental to that of the main building.

#### B. Building, Main

One or more of the principal buildings upon a lot. Garages, carports and other buildings which are attached to a dwelling or other main building or which are situated within 10 feet of a main building shall be considered as a part of the main building and the yard requirements shall be maintained accordingly.

#### C. Building, Line

A line designating the minimum distance which buildings must be set back from a street or lot line.

### 02.0507 Carport

A structure not completely enclosed by walls which is for the shelter of automobiles.

### 02.0508 Cemetery, Public and Private

#### A. Cemetery, public

Shall mean a burial place for humans which is owned and maintained by a city cemetery district or other public agency.

#### B. Cemetery, private

Shall mean a burial place for humans which is maintained by a private individual, corporation, or other non-public agency.

### 02.0509 Clinic

A building used for the diagnosis and treatment of ill, infirm or injured persons, but which building does not provide board, room or regular hospital care and services.

### 02.0510 Club

A building used, occupied, and operated by an organized association of persons for social, fraternal, religious, or patriotic purposes, whose activities are confined to the members and their guests, but shall not include any organization group or association, the principal activity of which is to render a service usually and ordinarily carried on as a business.

### 02.0511 Common Area

kitchen or cooking equipment for the exclusive use of the occupants.

#### B. Dwelling, One-Family

A detached residence designed for or occupied by one family.

#### C. Dwelling, Two-Family

A building containing two dwelling units.

#### D. Dwelling, Multiple-Family

A building containing three or more dwelling units.

#### E. Dwelling, Bachelor's - Apartment, Bachelor's

One or more rooms designed for living (bathing, eating, sleeping purposes) which is occupied by four or more non-related adults.

#### F. Dwelling, Caretaker's

A dwelling which is occupied by an individual or family whose function it is to watch or take care of a farm containing 20 acres or more. A caretaker's dwelling shall also mean a dwelling which is occupied by an individual or family whose function it is to take care of a business or industry which is located on the same premises as the dwelling.

#### G. Dwelling, Farm Labor

A dwelling which is occupied by an individual, a group of individuals or a family whose primary source of income is from working directly with agriculture or with livestock.

#### H. Dwelling Group

See Court Apartment.

### 02.0521.a Environmental Impact Statement

A statement prepared by an engineer, geologist, or other person qualified by training or experience, as determined by the Planning Commission, which indicates or describes the impact that the development will likely have on the natural features of the immediate area, and which describes the measures that will be taken to lessen the occurrence of adverse conditions with respect to:

- (a) Control of erosion within the subdivided area,
- (b) Reseeding of cuts and fills,
- (c) Provision for potable water.
- (d) Disposition of any geologic hazards or soil conditions which may cause injury to persons or injury or damage to improvements which may be constructed in the development, such as buildings, water, and sewer lines, and streets.
- (e) Provision for the proper disposal of solid and liquid wastes that will likely come from the occupants of the development when it is fully developed.
- (f) Prevention of fire and control of dust.
- (g) Prevention of the accumulation of weeds and debris.
- (h) Prevention of the destruction of vegetation or else the establishing of new vegetation.
- (i) Disposal of surface water and disposition of flood hazards.

ling.

### 02.0532 Hospital

A building in which ten or more ill or injured human beings are offered board and room while being treated for such illness or injury in accordance with instructions and procedures prescribed by persons registered to practice the healing arts in the State of Utah.

### 02.0533 Hotel

Any building used, rented, or hired out to be occupied on a daily or weekly basis for sleeping purposes by guests.

### 02.0534 Junk Yard

A place where scrap, waste, discarded or salvaged materials are bought, sold, exchanged, baled, packed, disassembled, or handled or stored, including auto wrecking yards, house wrecking yards, used lumber yards and places or yards for storage of salvaged house wrecking and structural steel materials and equipment; but not including places where such uses are conducted entirely within a completely enclosed building or where salvaged materials are kept incidental to manufacturing operations conducted on the premises.

### 02.0535 Kennel

Land or buildings used in the keeping of four (4) or more dogs over four months old.

### 02.0536 Landscaping

Landscaping shall mean the application or use of some combination of planted trees, shrubs, vines, ground cover, flowers, or lawns. In addition, the combination or design may include rocks and such structural features as fountains, pools, art works, screens, walls, fences, or benches, but such objects alone shall not meet the requirements of this ordinance. The selected combination of objects for landscaping purposes shall be arranged in a harmonious manner as determined by the Zoning Administrator.

### 02.0537 Land Use Plan

A plan adopted and maintained by the Board of County Commissioners which shows how the land should be used - an element of the Comprehensive Plan.

### 02.0538 Legislative Body

Legislative body shall mean the Board of County Commissioners, City Commission, City Council or Town Board having legislative jurisdiction in the territory covered by the zone map which has been adopted as part of a zoning ordinance.

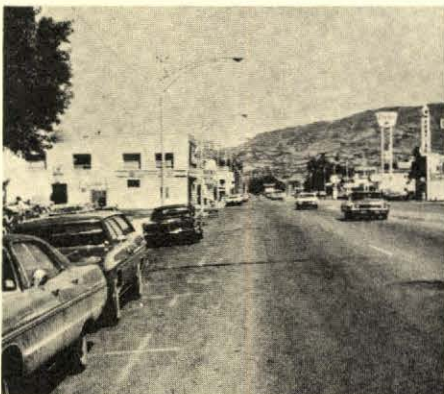
### 02.0539 Livestock Corral

A place or pen where livestock are kept on a seasonal basis as part of an agricultural enterprise or operation as distinguished from a livestock feed yard.



It is possible that during the inventory some of the original goals of an existing comprehensive plan may prove unrealistic when viewed in the light of newly gathered natural resource information; but it is far better to discover this fact early, before it pyramids into an irreversible and costly trend.

The citizens in Heber Valley may have a long way to go to achieve the sophisticated level of land use and environmental planning that is demanded in today's complicated society. But they have taken the first step—the realization that resource facts and analyses are the basis for a sound plan, and that a sound plan is vital to the continual process of land use planning.



## XI. Following Up

One of the most significant facts about the Wasatch County Master Plan is its flexibility. The goals of the Planning Advisory Council are firm, but the implementation of these goals—zoning ordinances and subdivision regulations—may change with the addition of new natural resource information and new technology. For instance, new building technology may permit development on formerly unsuitable ground allowing second alternatives to be used for housing and recreation as pressures and trends change. Heber Valley will continue with its inventory; this part of land use planning is never finished.

Many people have said that Heber Valley's example has done more for the rest of Utah than it has done for itself, simply by making other counties more aware of the importance of natural resources in their land use planning. Many counties are conducting resource inventories of their own, and six counties have made formal, written requests for technical assistance in conducting a natural resource inventory similar to Heber Valley's. Many counties have borrowed the slide presentation, *Yours Today, What's Tomorrow?* to make their citizens aware of the need for land use planning based on a thorough natural resource inventory.

The Heber experience has provided a model for other areas wanting to try the same thing. The Heber Valley story demonstrates how much published natural resource data exists. Various federal, state, and local agencies and organizations are talking to each other now and exchanging data. What is better, these agencies and organizations are talking to local government officials and citizen groups. Educators have discovered new, relevant ways of presenting environmental problems in the classroom, and relating them to issues in the community. Finally, it demonstrated how much interest citizens can have in resource management and land use planning when they have the facts to work with.



## **Organizations Supporting the Actual Planning in Heber Valley**

Wasatch County Commission  
Wasatch Soil Conservation District  
Wasatch County Planning Board  
Wasatch Council of Governments  
Wasatch County Board of Health  
Wasatch School District  
Wasatch County School Board  
Northeastern School Districts Curriculum Service Center

Mountainland Association of Governments

Utah Planning Coordinator  
Utah Department of Community Affairs  
Utah Department of Natural Resources  
Utah Division of Environmental Health  
Utah Division of Water Resources  
Utah Forestry and Fire Control  
Utah Park and Recreation Commission  
Utah Highway Department  
Utah Division of Wildlife Resources

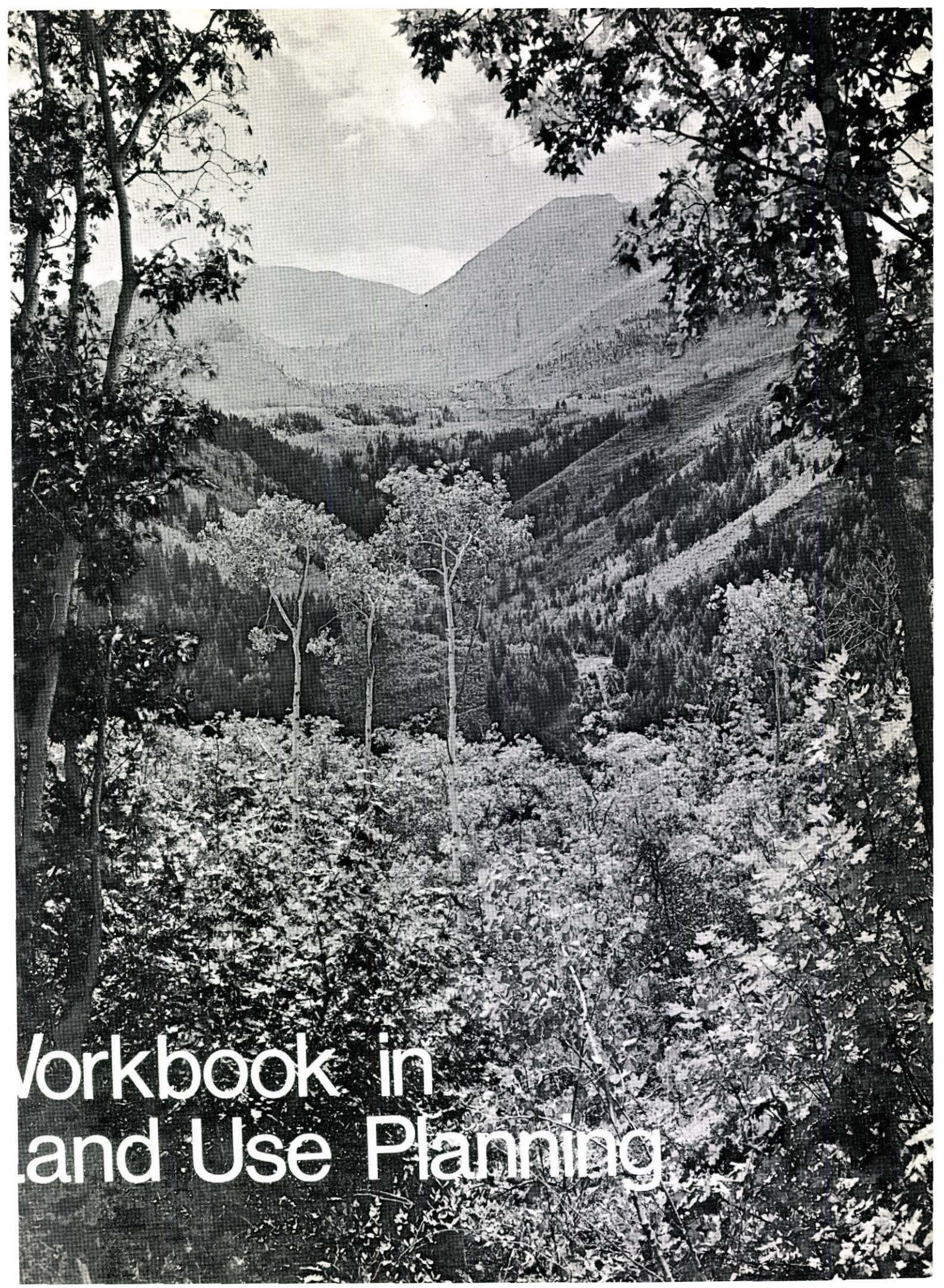
Office of Utah State Superintendent of Public Instruction  
Brigham Young University Center for Environmental Studies  
Utah State University Extension Service  
Utah State University Library  
Utah State University Environment and Man Program  
University of Utah

Soil Conservation Service  
Forest Service  
Bureau of Land Management  
Bureau of Reclamation  
United States Geological Survey

Central Utah Water Conservancy District  
Neilsen and Maxwell, Consulting Engineers  
I. Dale Despain, Consulting Planner







# Workbook in Land Use Planning

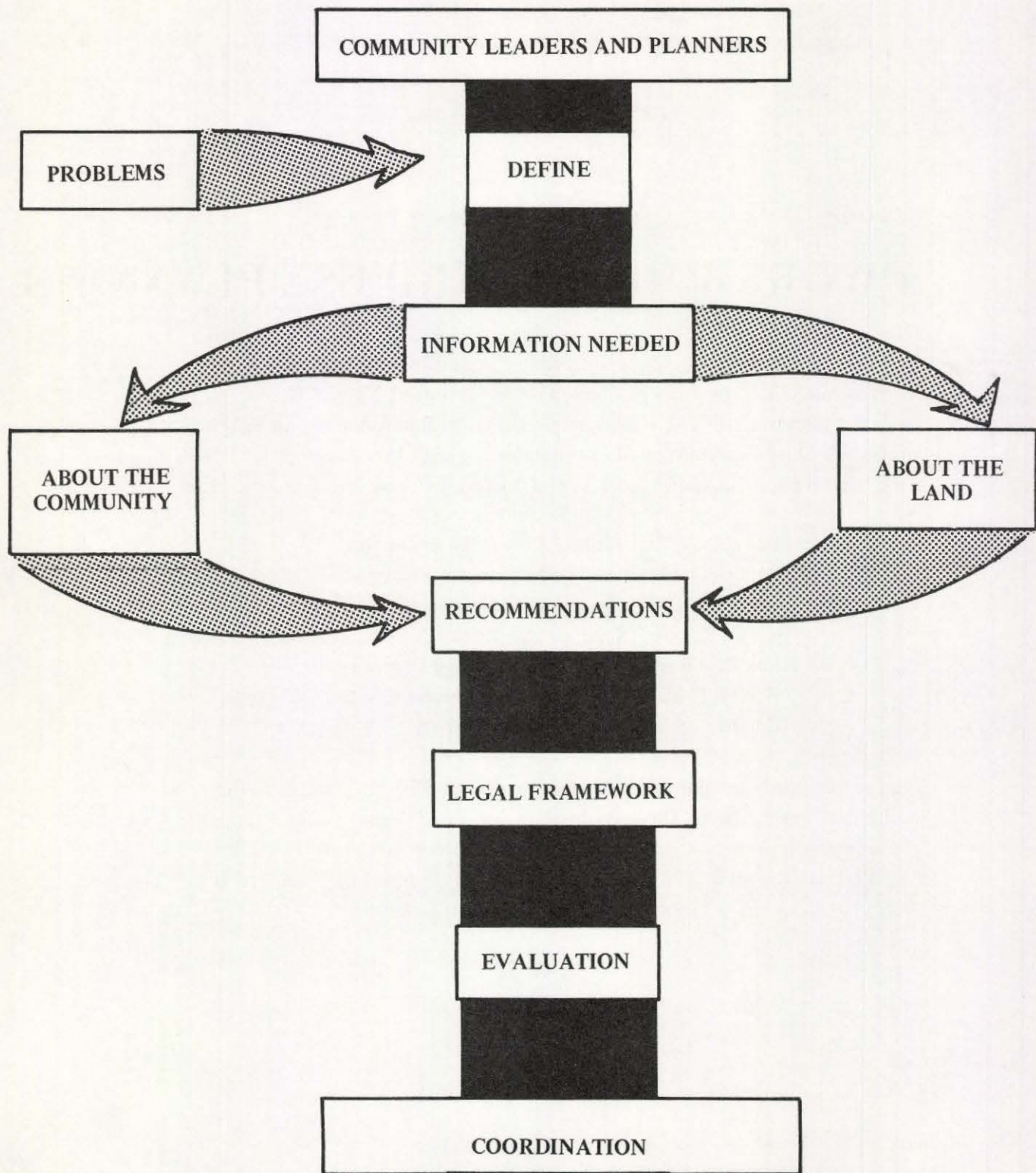


# A WORKBOOK IN LAND USE PLANNING

Written by Andrew Germanow and Donnie H. Grimsley, Environment and Man Program, and edited by Joan K. Shaw, Editor, College of Natural Resources, under the direction of C. M. (Cy) McKell, Director, Environment and Man Program, Utah State University, and in collaboration with Lyman Smart, Director, Intergovernmental Personnel Agency, and a Land Use Task Force consisting of:

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Dale Berg, Wasatch County Planning Office  
Don Drage, Soil Conservation Service  
Kent Ellertson, Northeastern Utah Educational Service Center  
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Gerald L. Smith, Utah State University

The Environment and Man Program operates under a 3-year grant from the Rockefeller Foundation. The *Workbook in Land Use Planning* is also funded by the Intergovernmental Personnel Agency through funds provided under Title VIII HUD Act of 1969, Title I Higher Education Act of 1965, and IPA-1970.





# INTRODUCTION

## Why Are We Here?

Poor land use is everywhere. It shows up in subdivisions scattered here and there with little regard for recreation and transportation facilities, in drainage and flooding problems, in mountains scarred by roads and developments, and in loss of productive agricultural lands.

Each year the social and financial costs of these problems to individuals and communities are staggering. (In California it has been estimated that \$33 million is lost by the citrus industry each year from smog damage.) As a result, the United States Congress is preparing an act on national land use policy and some state legislatures have already passed land use laws.

Many planning areas have adopted or are developing comprehensive land use plans and some are updating already existing plans. The implementation of these plans requires a **continuous input** of community wants and needs and natural resource information for the creation of dynamic and viable land use ordinances and regulations.

There is growing appreciation of the fact that unless we learn to recognize both the opportunities and the limitations of the land itself—our natural resources— as we plan and build our communities, the problems of today will be only a taste of what lies in store for us tomorrow.

**Land Use Planning** is making decisions about how land can best be used to avoid these problems. It is a **process** which requires knowledge about the land and the needs of the people who live on the land. Most importantly, the people who live on the land should contribute to, understand, and support decisions which are made about its use.

### **Purpose of Workbook**

This is a workbook in Land Use Planning which emphasizes two of the fundamental aspects of the land use planning process: 1) the establishment of community goals through adequate citizen participation to insure that the goals established represent a consensus of community feeling, and 2) the development of a natural resource inventory and criteria for land use based on the capability of the land to handle specified uses. Land use planning is only one part of total community planning and may be influenced by other essential aspects of community planning such as health services, economic development, human relations and cultural enrichment, quality of the physical environment, and community services. Users of this workbook should keep in mind this relationship.

When you have finished this workbook you should be able to describe:

1. ways to make long-range decisions about where different types of human activities (agricultural, residential, recreational, commercial, and industrial) can take place on the land—this is **Land Use Planning**.
2. the importance of including in this decision making process the members of your community – this is **citizen involvement**.
3. information about those parts of the natural landscape that are affected by the way land is used in your community—this is a **Natural Resource Inventory**.

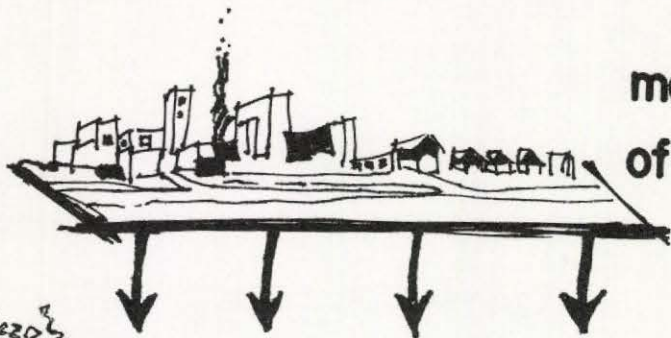
## Activity 1

As you watch the multi-media presentation, think of how the ideas expressed might apply to your community. The questions below are for discussion after the presentation. Space is provided for you to record your impressions during the discussion. If you do not have the multi-media set, go on to page 5.

How do some of the ideas expressed in the presentation fit your local situation?

In what ways do you think Land Use Planning is helpful to your community?





**man's uses  
of the land**



**the natural  
landscape**



# DEFINE PROBLEMS

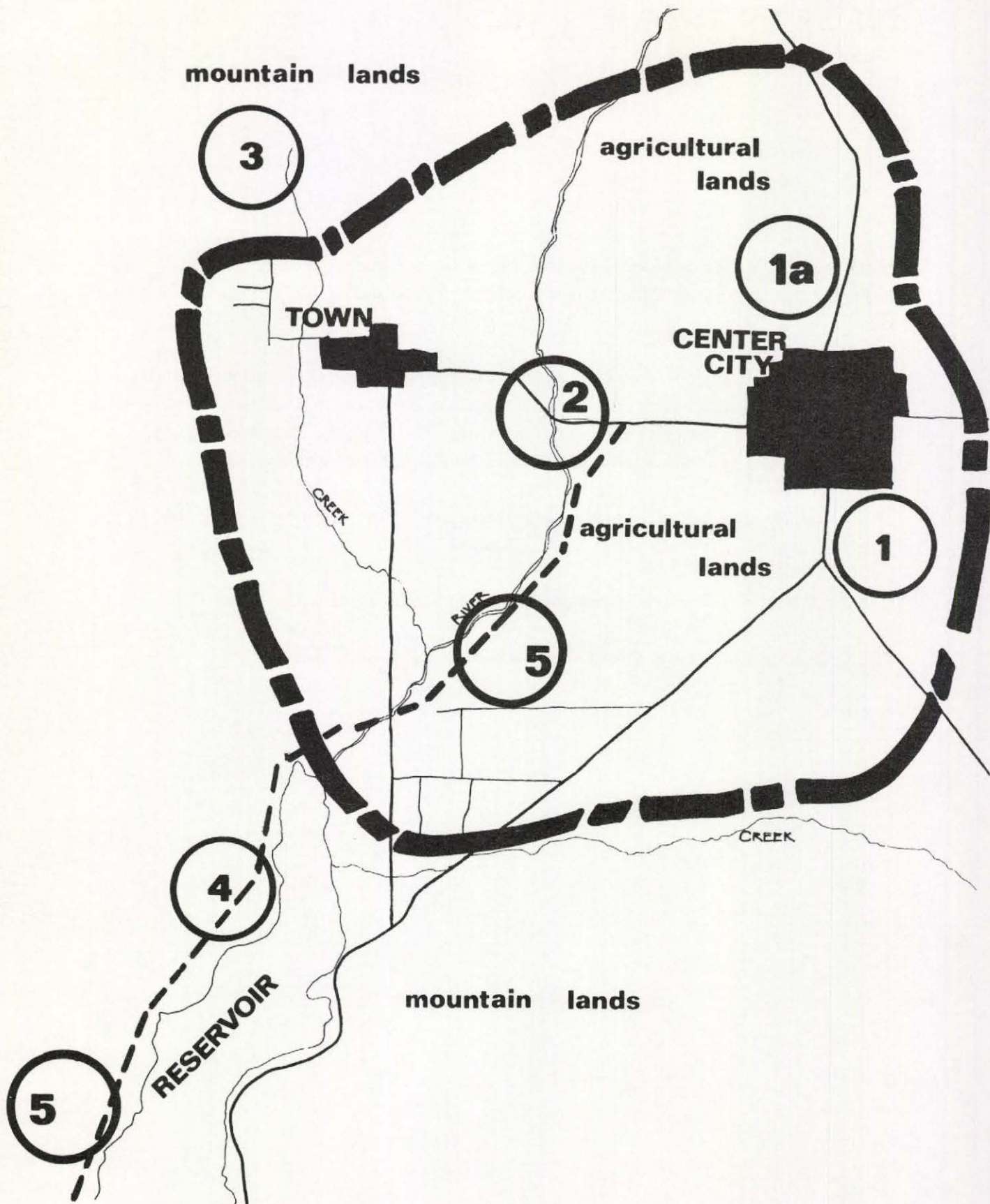
Man's uses of the land include agricultural, industrial, commercial, residential, and recreational activities. As these activities occur on the natural landscape, conflicts often arise. ✓

Some conflicts arise between an existing land use like agriculture and a proposed land use like industrial or residential development. Other conflicts may be caused by changes to the natural landscape created by man's activities. The results of these conflicts may range from water pollution and air pollution to traffic problems within a city.

These conflicts are what land use planning attempts to resolve or prevent. Land use planning requires citizens to ask:

What kind of place do we want our community to be in the future?

Whatever the answer, **this goal is unlikely to be realized without planning.**



## Activity 2

Discuss the following:

The map on the opposite page shows five proposed land uses or problems **typical** of those facing many communities in Utah. They are:

- ① Subdivisions on prime agricultural land—a conflict between urban and agricultural land uses.
- ② Unsightly commercial strip development along the highway.
- ③ Recreation-second home subdivisions in mountain lands—a conflict between them and the natural beauty their owners wish to enjoy, not to mention the additional problems of pure water and sewage disposition.
- ④ Location of a new industry.
- ⑤ Location of a new highway.

What problems do you have in your area? Do you have a land use problem not included in this list? If so, add it at the end.



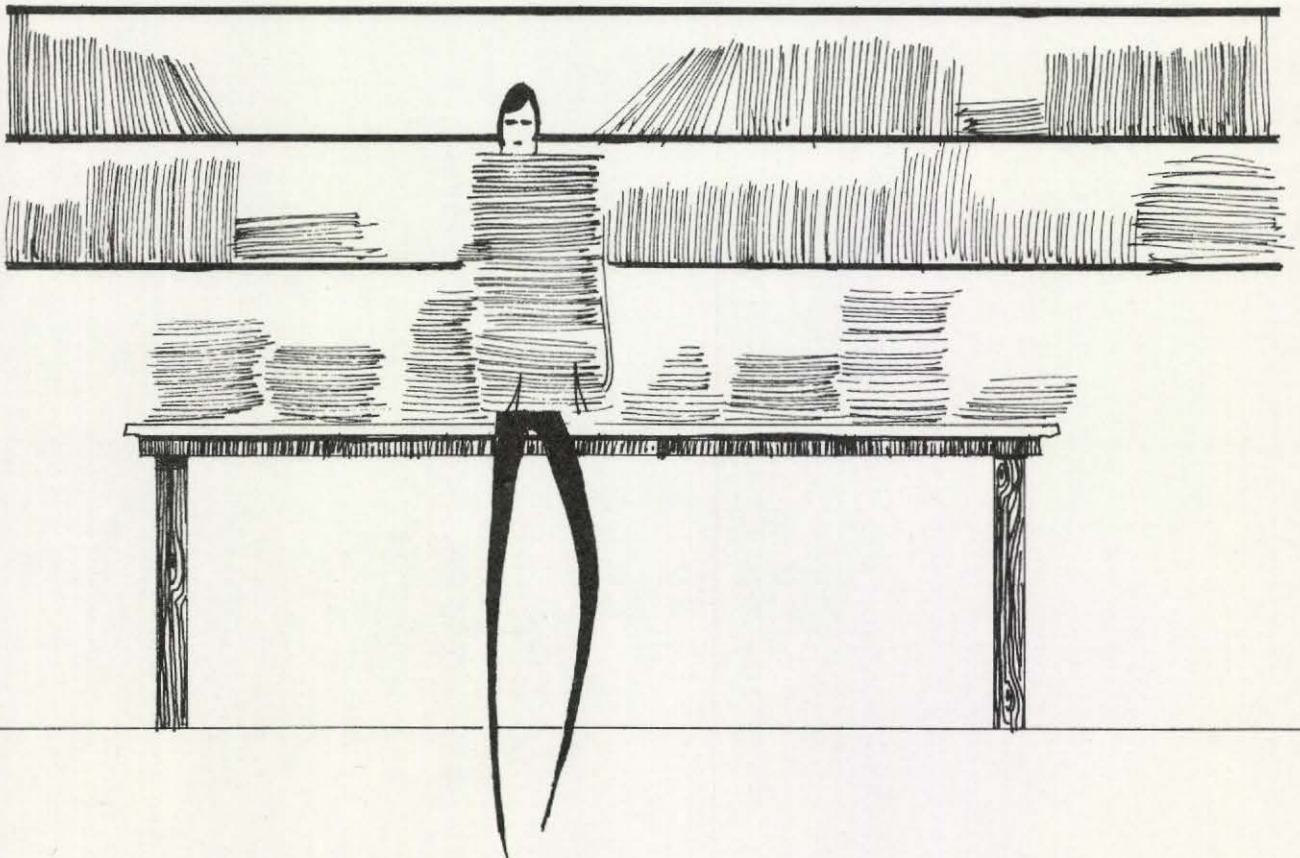
In the space below, **rank** the typical problems listed on the previous page according to their urgency in your area. Be sure to add any of your own which were not included in the list.

- \_\_\_\_\_ Subdivisions on prime agricultural land
- \_\_\_\_\_ Unsightly commercial strip development along the highway
- \_\_\_\_\_ Recreation-second home subdivisions in mountain lands
- \_\_\_\_\_ Location of a new industry
- \_\_\_\_\_ Location of a new highway

# INFORMATION NEEDED

In order to resolve conflicts and make the wisest possible land use decisions, community leaders need information on:

1. the wants, needs, goals, expectations, and values of the members of the **community**—the people who use the land, and
2. the opportunities and constraints of the area's **natural resources**.

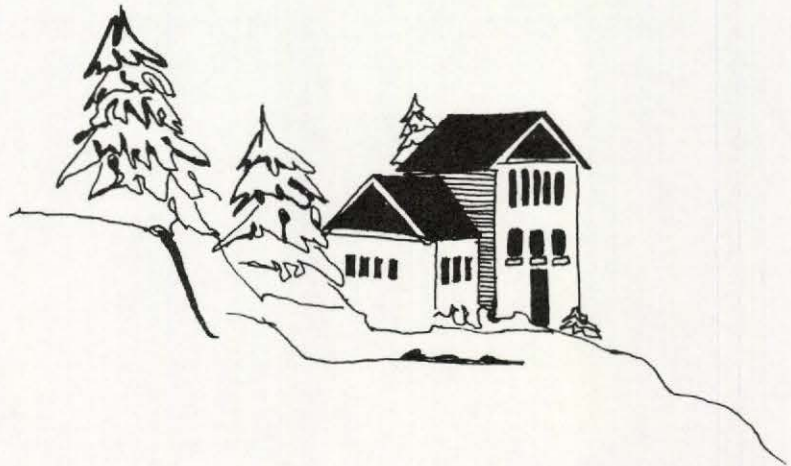




There may be plenty of this type of information already available in your community and in the various natural resource agencies you can contact.

But before you start collecting information you think **might** be helpful in solving your land use problems, you first ought to ask:

1. What do we need to know about the community?
2. What do we need to know about the land?



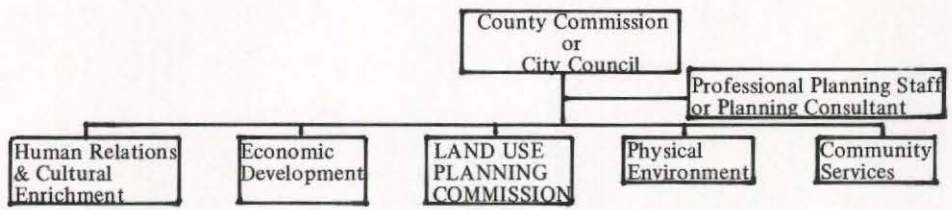
## About the Community

### Community Involvement

As stated earlier in this workbook, many planning areas in Utah have adopted or are developing comprehensive master plans. Effective implementation and updating of these plans is essential if Utah is to progress systematically.

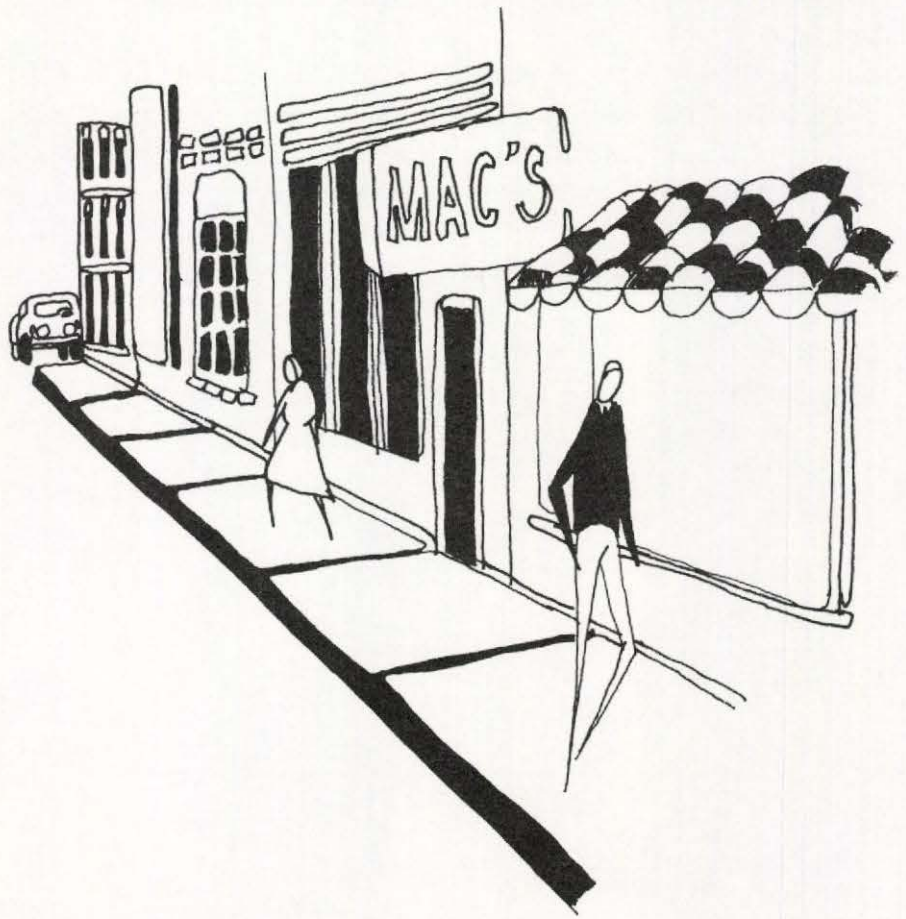
The effective involvement of the citizens in your community—both elected officials and interested individuals—is a key to the continuation of the planning process; therefore, some type of land use planning advisory committee is essential in assisting elected officials develop or implement your area, county, or community land use plan.

The following is an example of an organizational structure of a planning area:



Suggested Citizen Involvement

- |                                  |                                              |
|----------------------------------|----------------------------------------------|
| Area Rural Development Committee | Minority Groups                              |
| Businessmen                      | Professionals                                |
| Civic Clubs                      | RC&D (Resource Conservation and Development) |
| Community Action Groups          | Religious Leaders                            |
| Elderly                          | Trade Associations                           |
| Farm Organization Leaders        | Women's Clubs                                |
| Government Officials             | Youth Groups                                 |
| Land Developers                  | Others                                       |





## Community Goals

Conflicting ideas on land use may be settled easier if it is clear to all interests in the community what groups are affected by a particular land use problem and how they are affected. This in turn can lead to a more unified statement of community goals and objectives.

A program of public information and communication is essential in achieving this unity. Newspaper articles, a special newsletter, radio broadcasts, television panel shows, and public meetings can describe:

1. the land use problems and alternatives open to the community
2. who in the community is affected by these problems and how, and
3. which natural resources are affected.

The program should also have built into it a means of getting feedback from the area's residents through questionnaires, opinion tear-outs and letters to the editor in the newspaper, telephone call-in shows on the radio, and door-to-door public opinion polls.

Even after a master plan has been developed for your county or community there is a continuing need to obtain the views of citizens on how they want their area to develop. Public hearings on rezoning requests are one means of obtaining this information. Other means, such as town meetings or neighborhood committees, might be developed according to the desires of the citizens in your area.

For example, suppose a community's major land use problem is a large number of proposed subdivisions, some of which do not appear to be suitable to the community's long-range objectives. An appraisal of the situation, including maximum citizen feedback, could produce a list of groups affected such as the following:

**What Groups are Affected?**

. . Developers

. . Prospective home buyers

**How Are These Groups Affected?**

Cheaper land in outlying areas may involve developers standing the cost of water and sewer line extensions and other improvements.

Buyers should be assured that their potential homes are built on safe, suitable sites and should know what off-site and on-site improvements are included in the asking price.



.. Current taxpayers

Taxes are bound to increase after a sizable subdivision is built in order to provide utilities, education, parks and other services for people moving into it.

.. Store owners

A new housing development may bring in more customers to downtown business men, but it may also attract new business interests resulting in a shopping center in an outlying area. This may draw customers away from downtown.

.. Services by the community

New equipment and more personnel will be needed if a subdivision calls for expansion of services.

Utilities

Sewage

Garbage disposal

Maintenance

.. Farmers

Farmers are often pressured to sell their land for purposes other than agriculture.

.. Local officials

Community growth brings new problems in government and enforcement of its policies.

.. School board

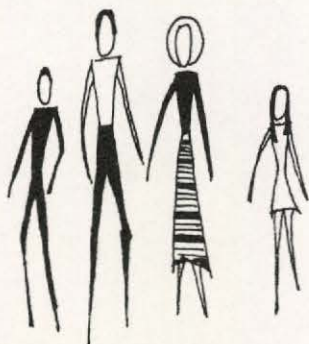
The questions of costs, space, and personnel in the community's schools will have to be faced as the community grows.

.. Local children

Favorite play areas often turn into houses, streets, and shopping centers.

.. Churches

Churches may need to expand facilities.



### Activity 3

Discuss the following:

Understanding the relationship between land use problems and the values and goals of various groups in your community is the aim of this activity. Using the most urgent land use problem you listed on page 8 of this workbook, discuss **what groups** in your area are affected by this problem and **how they are affected**.



Assume that the group at your table represents all interests in your area. Take a poll of them on what they would recommend to your elected officials as the community's long-range objectives.

1. Plan new subdivisions so that prime agricultural land is preserved.

Yes \_\_\_\_\_

No \_\_\_\_\_

2. Avoid strip commercial development along highways.

Yes \_\_\_\_\_

No \_\_\_\_\_

3. Encourage second recreational home development only in areas where land is suitable and views are not destroyed.

Yes \_\_\_\_\_

No \_\_\_\_\_

4. Plan location of new industry on suitable land close to cities and towns where services and workers are easily available.

Yes \_\_\_\_\_

No \_\_\_\_\_

5. Plan highway locations to minimize impacts on agricultural land and community values.

Yes \_\_\_\_\_

No \_\_\_\_\_

## About the Land

The land is the sum of parts called **natural resources**. Data on soils, water, geology, vegetation, fish and wildlife, and other natural resources can be used in making sound land use decisions. Understanding how a **particular natural resource** (soils or water) or **groups of natural resources** (in a flood plain or forest) are affected by agriculture, transportation, urbanization, recreation, and other land uses is the key to the interpretation of natural resource data for land use planning.

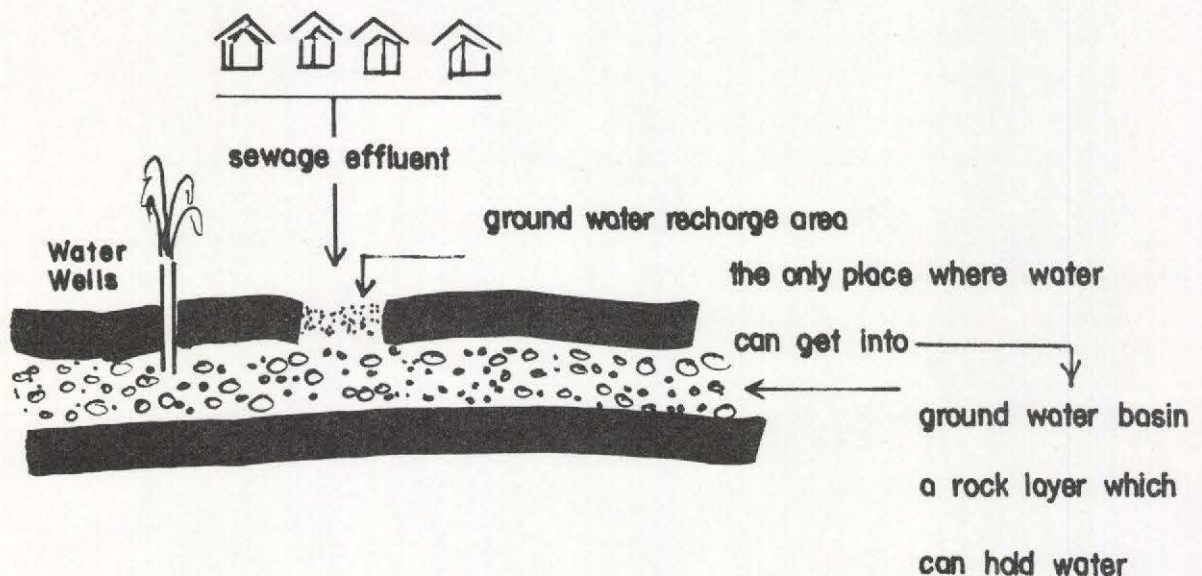
Any time a road, school, shopping center, park, or subdivision is constructed on the land, the landscape is changed and the pattern of nature is changed. Use of natural resource information as the basis for making land use decisions is to **minimize** changes in the pattern of nature and to match proposed uses to land suitability.

On the following pages are examples of areas needing special consideration.



## Groundwater Recharge Areas

Groundwater basins are geologic formations which store water used for wells. The recharge area is the place where water gets into the groundwater basins in order to continually replenish the supply. These areas are often floodplains or marshes.



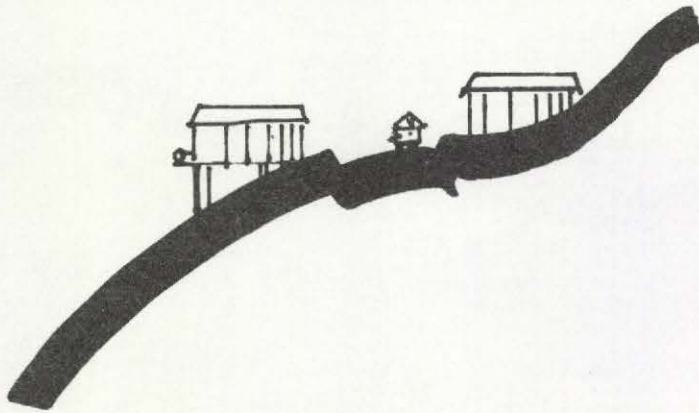
Covering the recharge area with houses, streets, and parking lots will decrease the amount of water refilling (or recharging) the groundwater basin. In some places, because recharge areas have been built over, wells have been taking more water out of the ground than is replaced each year. This condition causes the water table to drop and wells to dry up, creating a shortage in the water supply.

What effect do you think effluents from septic tank filter fields will have on the recharge area and the groundwater?

The problem of water quality is often related to a community's major land use problem.

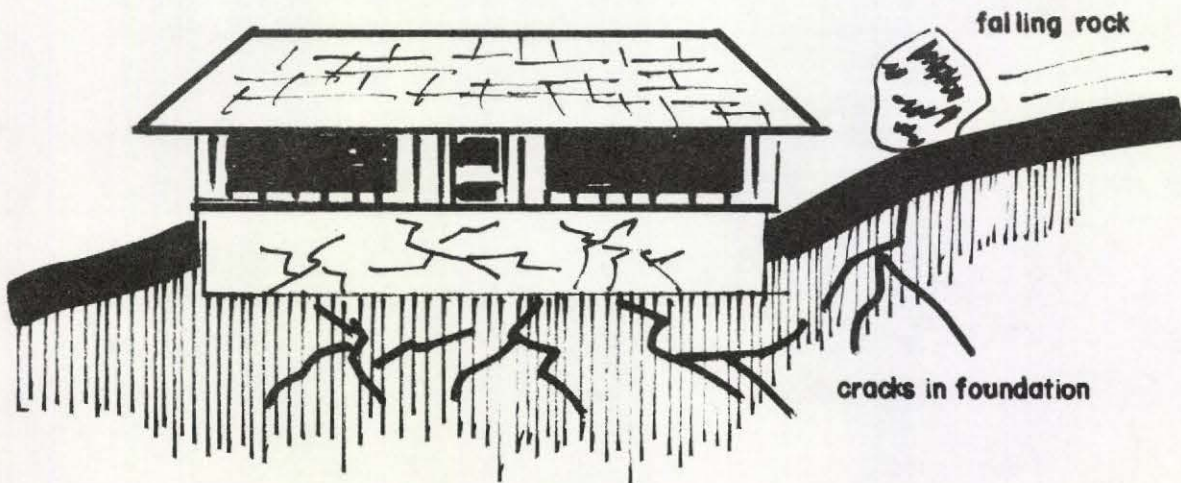
### Steep Slopes

Soils on steep slopes often lose their stability when they are cut for roads or housing construction. Dangerous mudslides and serious erosion problems are too often the result, and construction scars on mountain sides may persist for many years.



### Fault Zones

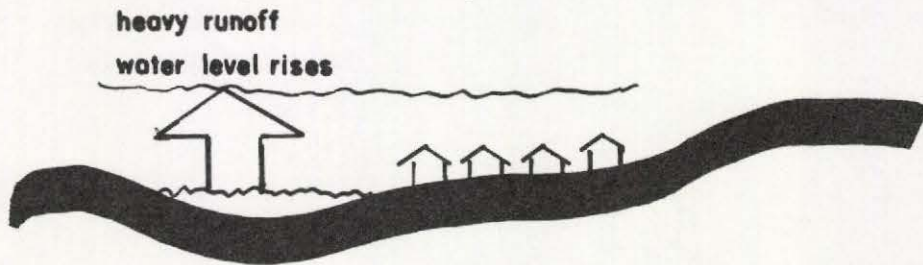
A fault zone is an area affected by the heaving of the earth or susceptible to falling rocks during an earthquake. In geologically active places along the Wasatch Front in Utah, buildings have been damaged by the effects of faults.





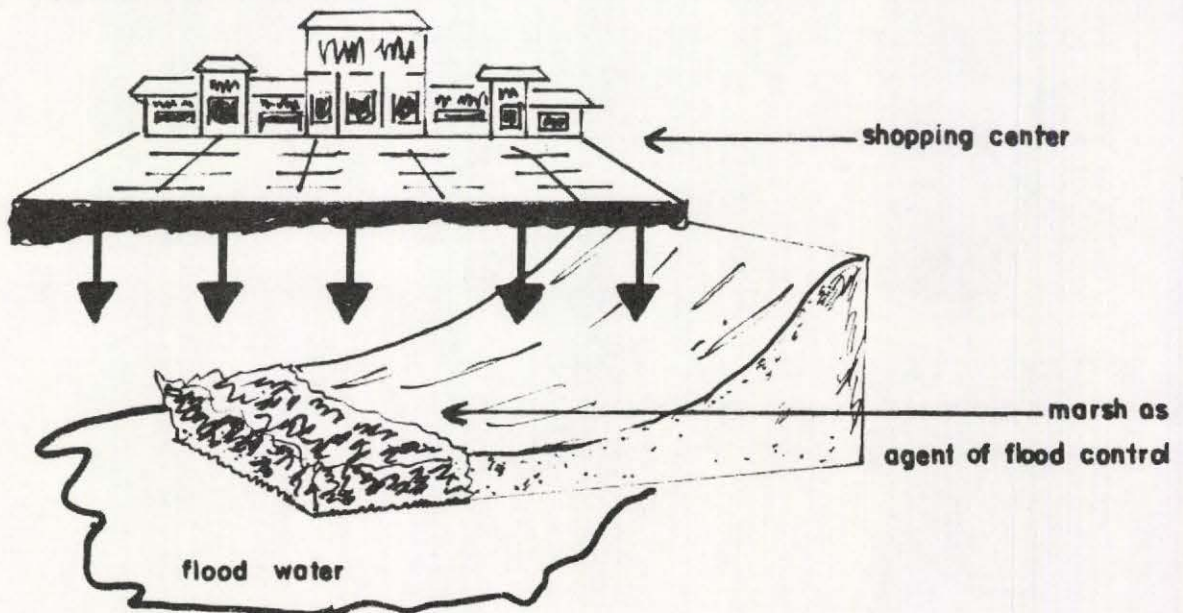
## Flood Plains

Flood plains are land areas along the banks of rivers which overflow in years of heavy runoff. The worst damages due to flooding are to those structures built on flood plains.



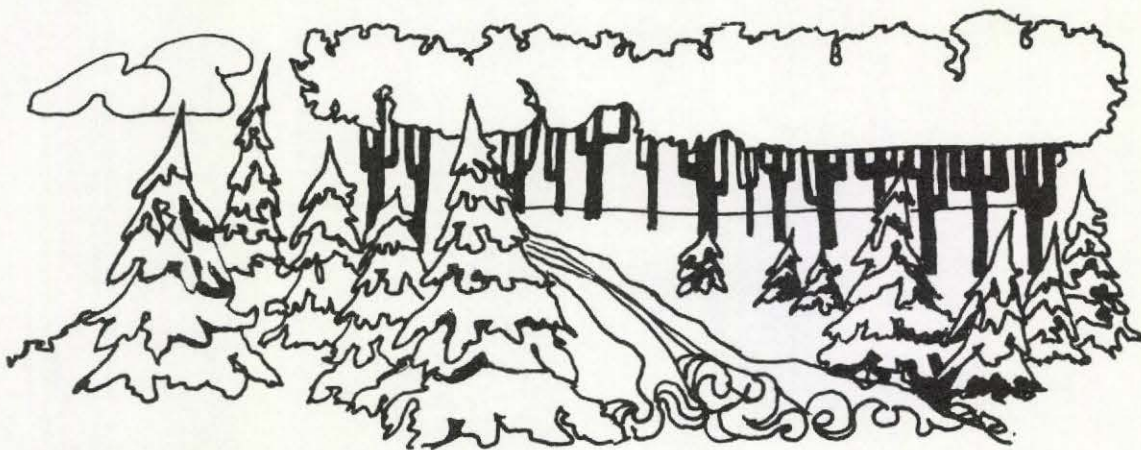
## Marshes

Marshes act as sponges for excess water during times of high water. They act as flood control agents. They also provide habitat for wildlife and fish spawning grounds. If a marsh is drained in order to build a shopping center, an agent of flood control is lost; in its place is a commercial center which meets the economic needs of the area. If flooding is a potential hazard, the long range costs of the shopping center covering the marsh may well exceed its benefits.



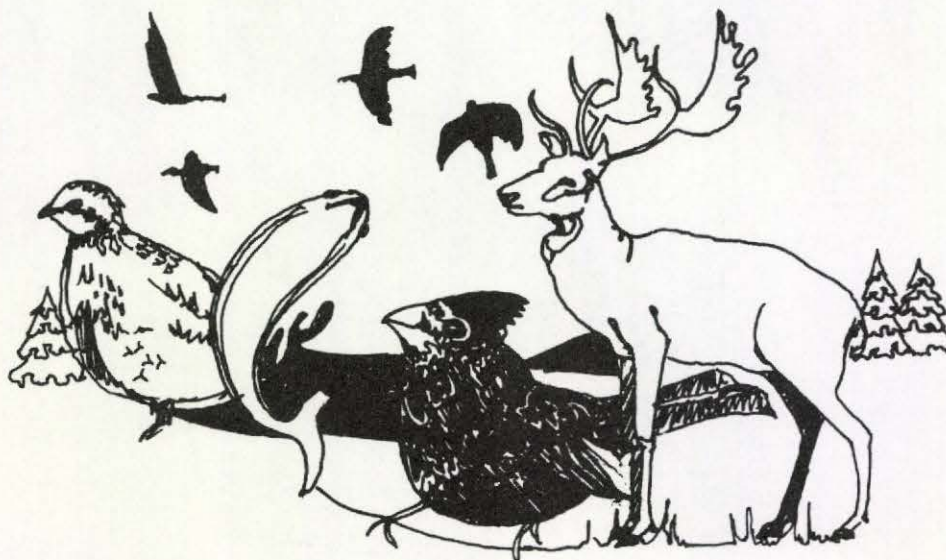
## Forests

Forests provide watershed areas, erosion control, wildlife habitat, lumber, and potential recreation areas. Development in forest lands should respect these existing uses.

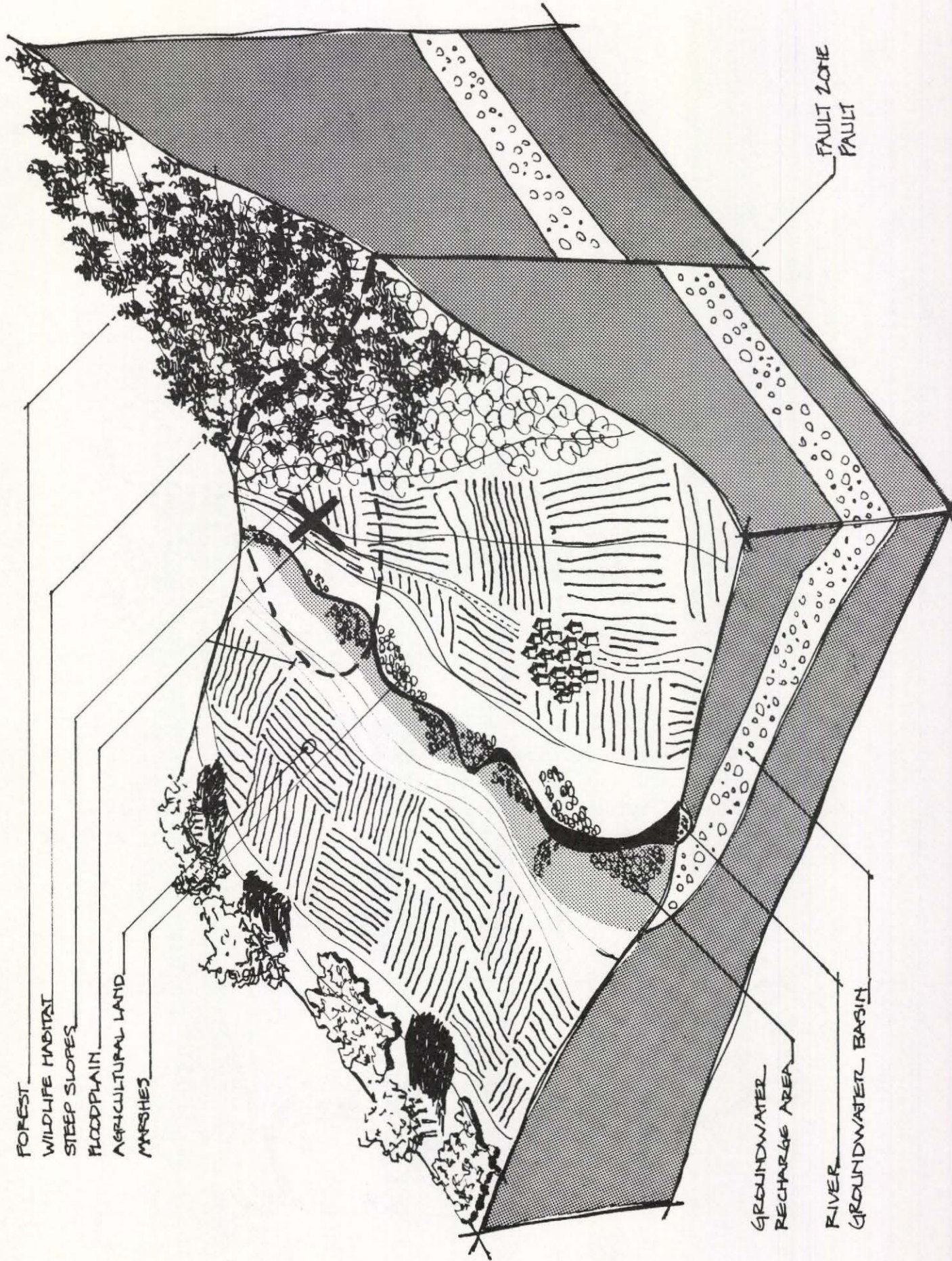


## Wildlife Habitat

As undeveloped areas have become accessible to man, the number of places where wildlife thrive are threatened. This can affect hunting, fishing, and tourism as well as the stability of the wildlife populations in an area.









#### Activity 4:

Discuss the Following:

The intent of this activity is for you to understand the relationship between the activities of man and the natural landscape. Study the sketch on the opposite page and discuss with your group the questions which follow.

1. Which areas on the sketch do you think ought to be protected from **all** development?
2. Which areas ought to be **respected** when development is considered for a place on or near them?

Refer to the **most urgent** land use problem you have listed on page 8 and assume it is located at X on the map. List the ways the land itself complicates this land use problem.

## How do Natural Resource Professionals Help?

The natural resource professionals can assist local citizens in gathering natural resource facts appropriate to your area's special problems. Then they interpret these facts to the community and to each other.

Here is an example of **one agency's** contribution toward an area's comprehensive natural resource inventory. In an actual situation, these facts would be combined with many others for simultaneous consideration in land use problems.

1. A community desires orderly and efficient growth, and is faced with a demand for more residential housing. The subsequent increase of subdivision proposals has created a real threat to orderly growth.

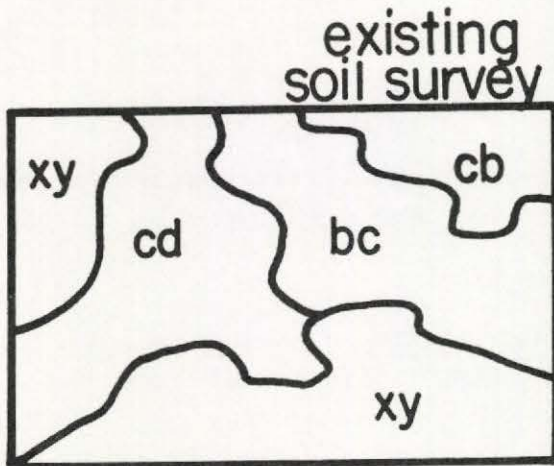
Since some of the proposed sites appear to be poorly drained and wet a good part of the year and other sites are located on Watershed lands in the mountains and thus present other potential problems, the community decides that before approving any proposals it will investigate the land for which the subdivisions are planned.

2. The community contacts the agencies responsible for soils data—the Soil Conservation Service and the Agricultural Experiment Station.

3. These agencies agree to investigate and interpret the soils in that area with regard to septic tank filter fields in order to help answer the question of sewage disposal on the wet and poorly drained sites. They also suggest to the community that it should compile information on the limits of the soils for foundations and excavations, particularly for the mountainous parts of the area.



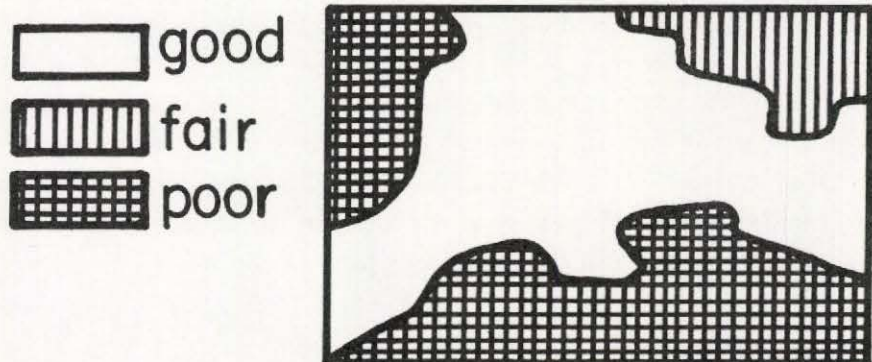
4. The Soil Scientist then finds whatever soils data are available for the area.



These surveys also include data on the characteristics and properties of each of the soil series mapped.

5. Soils which can adequately absorb and dispose effluent from septic tanks are determined by using criteria that consider the soil type, slope, and depth to the water table and bedrock.

6. An interpretive map is drawn of the same area showing soil suitabilities for septic tank filter fields:



7. Alternatives are explained to the citizen's planning advisory council:

If you have septic tank filter fields where the soil suitability is—

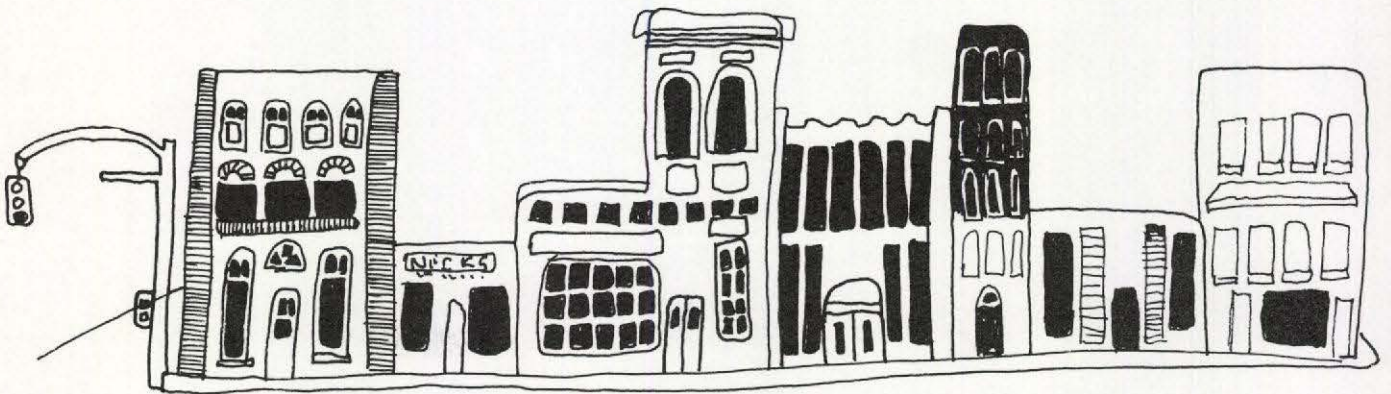
- |          |                                                                                                                                                                      |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ... good | There should be no problems in these areas.                                                                                                                          |
| ... fair | Builders should use caution: these areas may have drainage problems.                                                                                                 |
| ... poor | Septic tank filter fields here stand a good chance of polluting the water supply and ruining fishing streams. An alternative manner of sewage disposal is necessary. |



## How do Professional Planners Help?

The professional planner makes sure the natural resource information is coordinated and properly evaluated and interpreted so the local policy makers, citizens, and planning commission can understand it. He also combines this information with the needs and desires of an area's communities and demonstrates alternative solutions to their various land use problems. A professional planner may be involved as a member of the planning staff of local government or may be a planner hired as consultant to a local government.

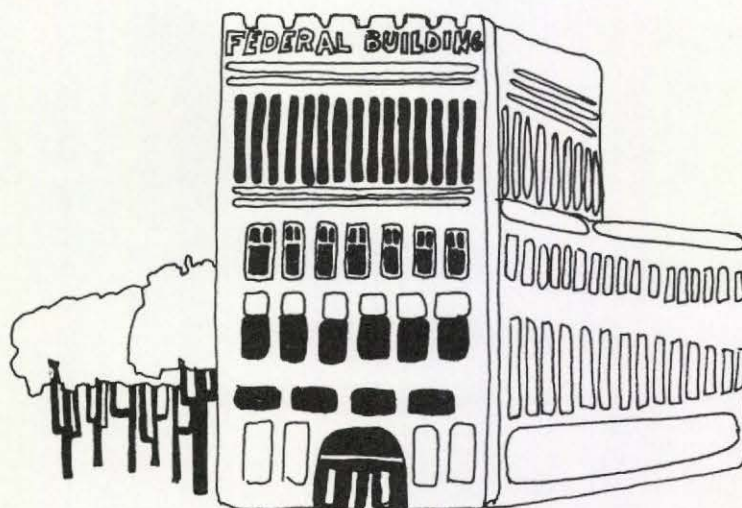
Do you know the professional planners who helped to develop the plan for your area?



## Organizing the Professionals

Natural resource experts, such as soils scientists, geologists, foresters, range managers, fish and wildlife specialists, and hydrologists, have access to existing information about your area in their particular field and, if necessary, could collect new data. A town, county, or region attempting to build an inventory of the natural resources relevant to their land use problems will wish to consult these local experts from county, state, and federal agencies in collecting and interpreting much of the information. Professional planners, by coordinating this data and putting it in a meaningful form, can then point out alternative choices for land use decisions.

To organize these natural resource professionals for a specific planning area, a request for their help must originate from local government officials.





A possible state agency to accept this request is the Department of Community Affairs or the Department of Natural Resources. Requests for federal agency help may be sent to the agency headquarters.

This request should be in the form of a proposal identifying the land area to be inventoried and a summary of its apparent problems, resource expertise available locally and citizen awareness of the existing problems and the attitudes toward them.

Those who can help in gathering information for these requests are County Commissioners, Soil Conservation District Supervisors, the University Agricultural Experiment Station, County Agents, the Soil Conservation Service, and the area's land use advisory committee.

## Activity 5

Discuss the following:

What natural resource professionals reside in your community and what additional professionals would have to be consulted?

What organization(s) in your community can bring the resource experts together so they can help you with a unified and fully cooperative natural resource inventory?

To what agency or office would you submit your request for help from the state natural resource professionals?

.. federal natural resource professionals?

.. university natural resource professionals?

List the individuals who could help you in drafting the proposal for a natural resource inventory in your area.

List the agencies to which you would send your proposal.



# RECOMMENDATIONS

A quick review of some of the material covered up to this point may help clarify how the information gathered by citizens and technicians can be used to make recommendations guiding local authorities in making land use decisions.

Land use problems can be the result of:

Land use needs ----- A need to use land for residential-recreational purposes

Conflicts ----- Conflicts arise between existing and proposed uses of the same land and between the proposed land use and the natural landscape.

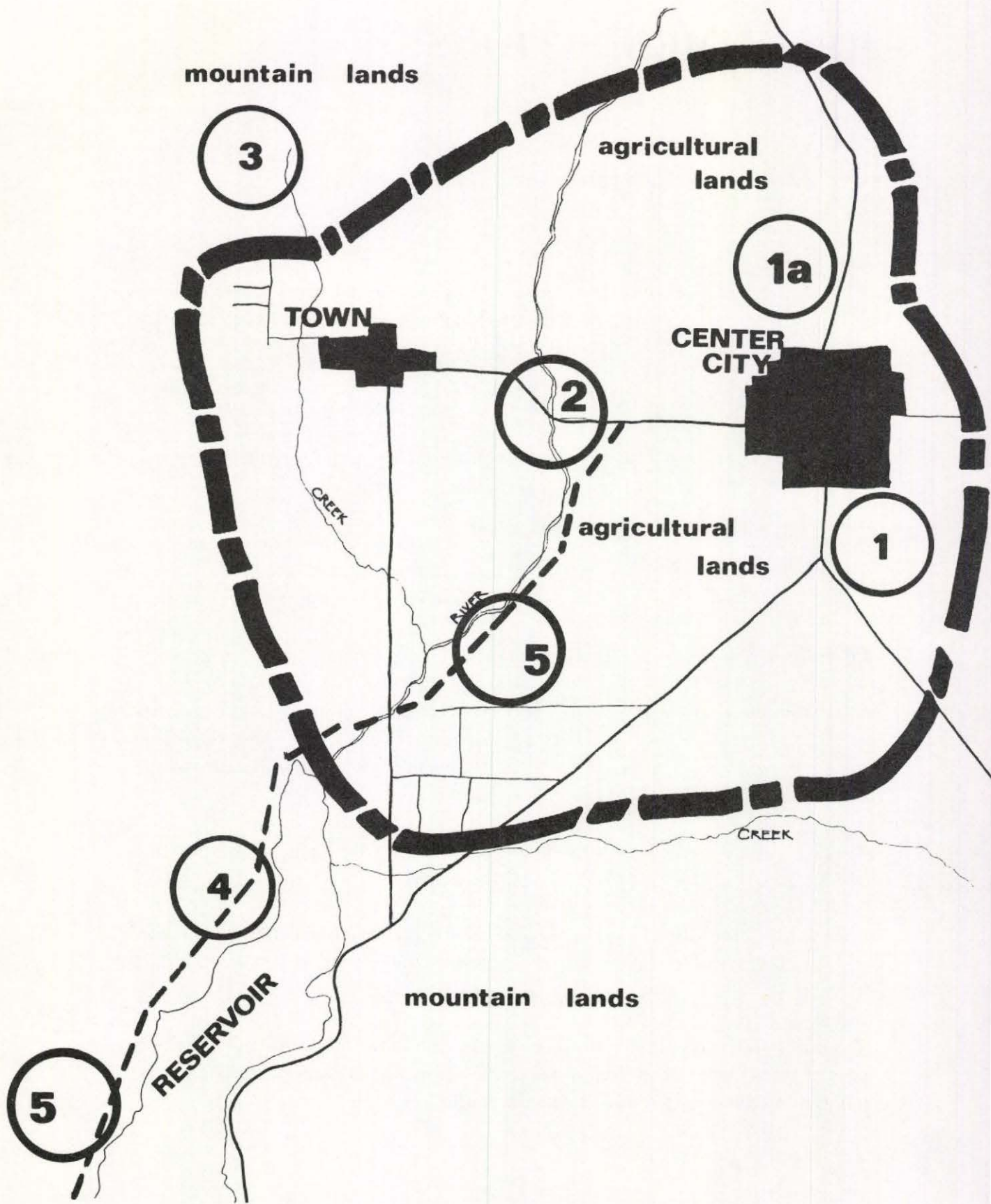
Information is needed to make wise decisions:

Natural Resource Inventory ----- One category of information collected was soil suitability for septic tank filter fields. Others might be geologic hazards, steep slopes, etc.

Professional Planner --- Coordinates information and offers alternatives.

Community Information ----- Viewpoints on a number of issues related to the conflicts of land use, land, and people.

The map shown earlier in the workbook is repeated on the following page. The purpose of the activities which follow it is to show how a small part of natural resource information can help in resolving land use conflicts.



## Activity 6

### Land Use Problems:

- ① Subdivisions on prime agricultural land—a conflict between urban and agricultural land uses.
- ② Unsightly commercial strip development along the highway.
- ③ Recreation-second home subdivisions in mountain lands—a conflict between them and the natural beauty their owners wish to enjoy, not to mention the additional problems of pure water and sewage disposition.
- ④ Location of a new industry.
- ⑤ Location of a new highway.

### Overlays of natural resource information furnished for example problems:

- Soil limitations for septic tank filter fields
- Steep slopes—areas with greater than 25% slope
- Geologic hazards—fault zones
- Drainage—ground water recharge areas, marsh lands



- These overlays incorporate only **some** of the natural resource considerations which, in conjunction with citizen goals and objectives, are needed to make land use decisions.

Among the five typical land use problems, choose the one which applies most urgently to your area and answer the questions applicable to it on the pages following, using the overlays furnished at your table and the poll of community objectives you took on page 18.

**Land Use Problem ① Subdivisions on Prime Agricultural Land**

At the present time there are no sewer lines extending to the proposed subdivision sites, yet a home built on either one will require some sort of sewage disposal system.

Overlays to use: Soil limitations for septic tank filter fields and Geologic hazards

What is the soil's ability to support a septic tank filter field at:

... Site ① \_\_\_\_\_

... Site ①a \_\_\_\_\_

How do geologic hazards affect:

... Site ① \_\_\_\_\_

... Site ①a \_\_\_\_\_

Site ① and ①a are both about the same distance from Center City. On which site would you recommend a subdivision to be built right away, provided the builders agreed to tie their disposal system in with the city's system within ten years?

If there is local concern about losing good productive agricultural land and aesthetically pleasing open space as a result of urban growth, how might the local decision makers attempt to direct growth, using this type of information?

What are your area's long range objectives regarding its prime agricultural land? Its open space?



## Land Use Problem ② Commercial Strip Development Along the Highway

At the present time there are a number of proposed commercial developments along the highway between Center City and the Town. There is concern among the residents of the area that this development will detract from the character of the surrounding area and create a serious traffic hazard.

Overlays to use: Drainage

Mark on your base map those areas along the highway which the overlay indicates are least desirable for commercial development. How can you use this information to encourage or discourage commercial development in any specific area.

How do you feel this type of information might help in evaluating proposed land uses such as the location of commercial development along the highway?

What is the general attitude of people in your discussion group about strip development?

Land Use Problem ③ Recreation-second Home Subdivision in Mountain Lands

So many mountainland subdivisions have been proposed in this area recently there is danger that its beauty will be destroyed.

Overlays to use: Soil limitations for septic tank filter fields, Geologic hazards, and Steep slopes.

What would you recommend on the question of site ③ for a mountainland subdivision? Why?

Are there other considerations which could affect your recommendations, such as views affected and water quality downslope?

Would you recommend alternative sites? Mark these sites on the map and explain why they might be better.

How do you feel this type of information might help in better locating recreation-second home subdivisions in mountain lands?

Land Use Problem ④ Location of a New Industry

A large corporation is interested in building a plant in this area and have taken an option on the land at ④.

Overlays to use: Steep slopes, Geologic hazards, and Drainage

What recommendations would you make to the corporation representatives concerning the proposed site of the new industry?

Is there strong public sentiment in your community for or against location of industry in this type of area?

Mark on your base map some other sites which might be more appropriate for the new industry.

How do you feel this type of information might help in finding more suitable sites for a proposed industry?

How close to a community should industry be located?



Land Use Problem (5) Location of a New Highway

A new highway proposed for this area has created some controversy.

Overlays to use: Geologic hazards, Drainage, and Steep Slopes

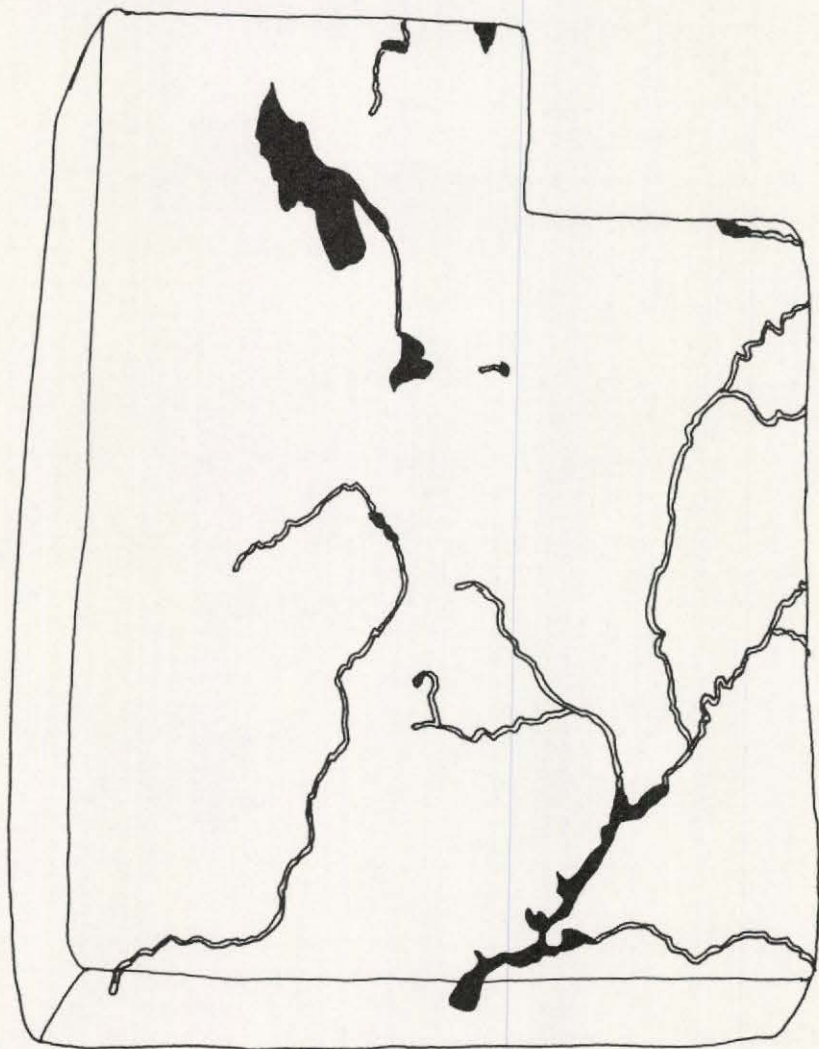
Mark on your base map the natural resource problems found along the route of the proposed highway.

How much prime agricultural land would be affected?

Would the proposed highway damage any wildlife habitat? How?

What alternative routes for the highway would you propose? Mark them on your map.

How do you feel this type of information might help in finding the most suitable location for a new highway?





# LEGAL FRAMEWORK

## What is the Legal Framework in Which Land Use Decisions Can be Implemented?

### Where do the county, city, and special districts obtain their authority?

The Tenth Amendment to the Constitution of the United States reserves to the states all powers which were not delegated in the Constitution of the United States. One of the powers reserved to the states was "police power." This power is generally understood as permitting the states to enact laws which promote the order, safety, morals, and general welfare of society. The right to regulate land use and zoning falls within the police power of the state. This power may be legitimately delegated to local governments.

In Utah the power to zone or otherwise regulate land use is delegated in statutes known as **enabling acts**. Counties receive their power to zone or otherwise regulate land use in Title 17, Chapter 27, of the Utah Code Annotated. Incorporated cities and towns receive their authority from Title 10, Chapter 9, of the Utah Code Annotated. The United States Supreme Court has held that local governments have the constitutional authority to zone comprehensively (*Village of Euclid v. Amber Realty Co*, 272 U.S. 365 [1926]).

Some regulation of land use is granted to special districts authorized by the state legislature. These are listed below with the title and chapter of the Utah Code from which they derive their authority.

Municipal Improvement Districts	Title 10, Ch. 16
Public Transit Districts	Title 11, Ch. 20
County Water and Sewer Districts	Title 17, Ch. 6
Improvement Districts	Title 17, Ch. 7
Fire Protection Districts	Title 17, Ch. 9
Special Road Districts	Title 17, Ch. 10
Drainage Districts	Title 19, Ch. 1
Mosquito Abatement Districts	Title 26, Ch. 14
School Districts	Title 53, Ch. 4
Soil Conservation Districts	Title 62, Ch. 1
Irrigation Districts	Title 73, Ch. 7
Metropolitan Water Districts	Title 73, Ch. 8
Water Conservancy Districts	Title 73, Ch. 9

## Counties

### **What does this authority or power allow you to do?**

The Board of County Commissioners has authority and power:

- .. to provide for the physical development of the unincorporated territory of the county (UCA 17-27-1).
- .. to zone all or any part of the unincorporated territory of the county in the manner authorized by Title 17, Chapter 27, Utah Code Annotated (UCA 17-27-1).

### **How does the Board of County Commissioners carry out its authority to zone and plan?**

- .. if the county has over 15,000 population, a county planning commission must be appointed by them; otherwise, the Board of County Commissioners may act as the county planning commission (UCA 17-27-2).
- .. They must direct the county planning commission to adopt a master plan for development (UCA 17-27-4).
- .. They may adopt an official map of the county and require a permit to build within mapped street locations noted thereon in order to preserve its integrity (UCA 17-27-7, UCA 17-27-7.10).



- . . They may zone all or parts of the unincorporated area of the county (UCA 17-27-9).
- . . They may establish, upon proper petition, a planning district within the county and appoint a district planning commission (UCA 17-27-7).
- . . They may adopt temporary regulations pending the completion of a zoning plan (UCA 17-27-19).
- . . They must submit any master or zoning plans to the state planning commission for their advisory opinion prior to their adoption (UCA 17-27-20).

**How does the Board of County Commissioners provide for the administration and enforcement of a zoning ordinance?**

- . . They provide for the administration of the zoning ordinance by promulgating a building permit system administered by a county building inspector or similar person, and by appointing a Board of Adjustment to adjudicate disputes arising from the administration of the zoning ordinance (UCA 17-27-5).
- . . They may enforce the zoning ordinance by seeking judicial remedies, both criminal and civil, for violations or proposed violations of the zoning ordinances of the county (UCA 17-27-23).

## Cities

### **What does this authority or power allow you to do?**

- .. The legislative body of a municipality may enact a zoning ordinance which regulates and restricts the height, number of stories, and size of buildings and other structures; the percentage of lots that may be occupied; the size of yards, courts, and other open spaces; the density of population and the location and use of buildings, structures and land for trade, industry, residence or other purpose to promote the health, safety, morals, and the general welfare of the community (UCA 10-9-1, UCA 10-9-5).
- .. The legislative body may divide the city into zoning districts (UCA 10-9-2).

### **How does the legislative body of the municipality carry out their authority to zone and plan?**

- .. They may appoint a planning commission (UCA 10-9-4, UCA 10-9-19).
- .. They may direct the planning commission to adopt a master plan for development (UCA 10-9-20).
- .. They may adopt an official map of the municipality and require a permit to build within mapped street locations noted thereon in order to preserve its integrity.
- .. They may zone all the areas in the municipality (UCA 10-9-5).



- . . They may divide the city into zoning districts (UCA 10-9-2).
- . . They may adopt temporary regulations which may be effective up to six months.

**How does the legislative body of the municipality provide for the administration and enforcement of a zoning ordinance?**

- . . They may provide a building permit system administered by a county building inspector or similar person, and may appoint a Board of Adjustment to adjudicate disputes arising from the administration of the zoning ordinance (UCA 10-9-7, UCA 10-9-19 [e], UCA 10-9-24).
- . . They may enforce the zoning ordinance by seeking judicial remedies, both criminal and civil, for violations or proposed violations of the zoning ordinances of the county (UCA 10-9-10, UCA 10-9-30).

## State

### What State Agencies Have Significant Authority That Affects Land Use?

#### Utah State Division of Health

The authority of the Division of Health pertains to regulation of certain aspects of water system and sewage disposal system construction and operation. No direct authority over subdivisions is given to the Division of Health; however, no public water system or public sewage disposal system, whether related directly to subdivision development or not, may be constructed without prior approval of plans and specifications by the State Health Division. Sewage disposal facilities provided for individual homes must not be in conflict with regulations pertaining to them. Enforcement of these regulations rests at the local level, and plans for individual installation need not have prior approval by the State Division of Health. Such prior approval, however, may be required locally.

Upon request, plans for housing subdivision development will be reviewed by the State Division of Health. A brief report of review will be issued by them indicating feasibility of development in terms of water supply and sewage disposal needs as well as other items of public health importance. Regulations pertaining to this review and requirements for public and private water and sewage disposal systems are obtainable on request from the Utah State Division of Health. (Refer to State Health Division regulations entitled "Rules and Regulations Relating to Public Water Supplies, Code of Waste Water Supplies and Private Well Water Supplies.")



The State Division of Health provides in its regulations that adequate surface drainage must be provided and water supplies must meet its requirements in agriculture labor camps, construction labor camps, trailer, camper and tent camps, and hotels and motels. Also, construction of a water system intended to serve occupants of any camp may not be started until plans have been submitted to and approved in writing by the State Division of Health.

#### **Water Pollution Control Board**

Among the major authorities given to the Board that affect land use the two most important are the following: (1) It may issue, modify, or revoke orders prohibiting or abating discharges of wastes into the waters of the state; orders requiring construction of new treatment works, modifying or extending existing treatment works or other remedial measures to prevent, control or abate pollution; and orders setting standards of water quality and classifying water. (2) It must issue a permit before any person may carry on any activity which may discharge wastes into the waters of the state. Such activities include the construction, installation, modification on any treatment work or part thereof; new outlet construction for waste discharge; or any increase in the volume or strength of any wastes in excess of existing permit limits. Injunction proceedings are available to the Board to bring about compliance with its orders (UCA 73-14).

#### **Utah Air Conservation Committee**

Any person planning to construct a new installation, to modify an existing installation, or to install an air cleaning device which will or might reasonably be expected to increase the amount or change the effect of air contaminants discharged so that the installation may be expected to become a source of air pollution must submit to the Executive Secretary a notice of intent to construct prior to initiation of construction. The same requirement of notice applies to installation of an air cleaning device or other equipment to control emissions of air contaminants. Within 15 days of the

notice the Executive Secretary may require that plans for the construction be submitted for his review. Within 90 days of the receipt of the plans the Executive Secretary may issue an order prohibiting the construction if he feels it does not comply with regulations. If no order to prohibit construction or order permitting construction is issued within 90 days, it is deemed that construction may proceed.

#### **Board of Forestry and Fire Control**

This Board has very important authorities that affect land use. It may determine and execute the best methods of protecting private and public property by preventing the origin and spread of fire on nonfederal forest, range, and watershed lands. It may protect nonfederal forest and watershed areas on conservation principles (UCA 24-2-1). In a letter dated June 22, 1972, to Mr. Richard Klason, Deputy State Forester, Mr. Ford G. Scalley, Assistant Attorney General of Utah, stated that the Board, if it felt it was necessary, could require that all plans for subdivisions within wildland areas be reviewed by the State Forester.

#### **State Engineer**

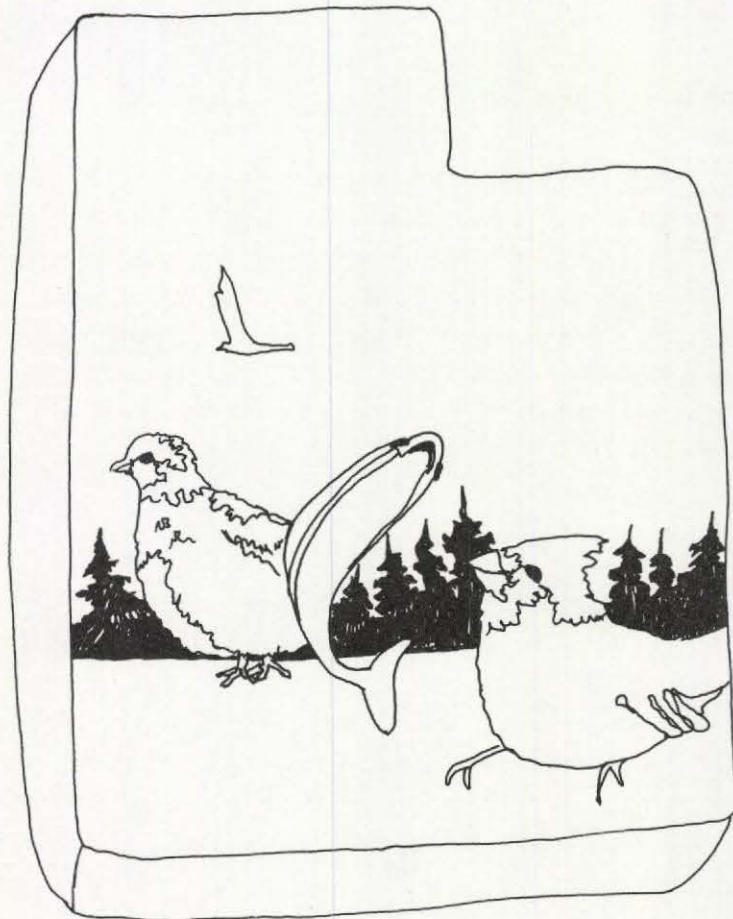
UCA 73-1-1 (1953) declares, "All waters of this state, whether above or under the ground are hereby declared to be the property of the public, subject to all existing rights to the use thereof." Policy making authority over water resources is vested in the Board of Water Resources which is located in the Division of Water Resources. The State Engineer has general administration supervision including authority to public rules and regulations of the waters of the state, and of their measurement, appropriation, and distribution. He has the power to establish water districts and their boundaries (UCA 73-2-1).

#### **Board of Fish and Game**

UCA 23-2-1 provides that the Board may establish refuges for hunting, trapping, or fishing of game, game birds, fish, or fur-bearing animals. The board may also deter-



mine under what circumstances, when and in what localities, by what means, and in what amounts and numbers game, birds, fish, fur-bearing animals, and amphibians may be taken or killed in order to insure a proper supply in the state for their use and development for public recreation and food supply (UCA 23-2-1).



#### **Board of State Lands**

Many authorities are given to this Board that affect land. Among the more significant ones are the following: (1) The Board may set apart state lands claimed as beds

of lakes or streams for public parks and recreational use (UCA 65-1-14); (2) it may lease minerals on state lands (UCA 65-1-15); (3) it may classify and register state lands and sell or lease state lands (UCA 65-1-24); (4) it may sell timber on the unsold and unleased state lands (UCA 65-1-39); (5) it may issue surface grazing leases on state owned lands (UCA 65-1-44); (6) it may lease state lands to the United States Government for defense purposes up to 99 years; and (7) it may break down public lands under some circumstances into subdivisions and sell them as such.

### **Board of Parks and Recreation**

Authorities held by the Board of Parks may affect land use in the following ways: (1) The Board may acquire, designate, and establish all state parks, monuments and state recreational areas as provided in the statutes (UCA 73-11-7 [1]); (2) it may acquire and designate state roadside parks (UCA 63-11-17 [2]); (3) it may protect, care, and use the state park system (UCA 63-11-17 [5]); (4) it may permit multiple use of its land including mining, grazing, fishing and game hunting, and development of water and other natural resources (UCA 73-11-7).

### **State Building Board**

The State Building Board is authorized to carry out the building program of the state including power to buy, lease, and exchange the real and personal property it needs to carry out its function (UCA 73-10-7).

### **Department of Business Regulations**

**Real Estate Division** – UCA 61-2-15 (1953) authorizes the Utah Real Estate Division to investigate agricultural lands being offered for sale, or proposed to be offered for sale, for colonization purposes or for farm acreage subdivisions, or for rural settlements, or for townsite purposes and to make a public report, with the seller or promoter bearing all reasonable expenses. UCA 16-2-16 (1953) requires the seller or promoter to have a permit from the Real Estate Division before advertising, selling,



or offering to sell subdivided lands. Thus the seller must only properly disclose to the division the required information listed in the Division's regulations. No authority exists for denying a permit to sell other than failure to provide adequate information. The division has no authority to deny a permit to sell even if critical problems are apparent and are so stated in the division public report. The Public Report will contain an appraisal of various matters including water and water disposal and utility accessibility. Every purchaser of such land should obtain a copy of the Real Estate Division Public Report and read it thoroughly prior to contracting to buy. The seller is required to give a copy of the public report prior to the execution of any contract of sale or conveyance of said land.

Significant among their information requirements in regard to land use is a report from the State Health Department regarding water and sewage and feasibility of land use, a report from the state engineer if water is not available, and a report from the county planning commission that such land has been cleared for development.

### **State Road Commission**

The State Road Commission may exercise such control over the location, establishment, changing, construction, and maintenance of highways as is provided by law (UCA 27-12-7). It may determine what portion or portions of any state highway shall be improved at the expense of the state (UCA 27-12-8 [2]). It has the right to make reasonable regulations for the installation, construction, maintenance, repair, renewal, and relocation of all facilities and drainage and irrigation systems of any cooperatively and public aware utilities, including drainage and irrigation systems and utilities owned by all political subdivisions, in, on, along, over, across, through, or under any project on federal-aid primary, secondary, or interstate systems of highways (UCA 27-12-11). It may in its discretion build and maintain roads leading to roads and parking spaces on grounds of state institutions to which roads have not been designated by the legislature and to serve areas used for salt flats, ski meets, and other activities which are promoted for the general welfare when such areas are in the immediate proximity to a designated highway (UCA 27-12-17).

The State Road Commission also may acquire land for and/or construct for the following: weighing stations, shops, offices, storage buildings and yards (UCA 27-12-96 [5]); material sites (UCA 27-12-97 [6]); sight distance zones (UCA 27-12-97 [7]); rest areas (UCA 27-12-96 [11] and UCA 27-12-109); and scenic view areas (UCA 27-12-109.1).

The commission is authorized to declare a highway a limited access facility and obtain access rights along the highway (UCA 27-12-111 to 114). This type of action has a significant affect upon land uses along highways. The commission also has the authority to regulate advertising along certain roads (UCA 27-12-136.6) and to regulate junkyards along certain roads (UCA 27-12-137.5).

### **Educational Institutions**

The State Board of Higher Education has authority to approve or disapprove all new construction, repair, and rehabilitation or purchase of education and general buildings and facilities financed from any source at state supported institutions of higher education including the Utah Technical Colleges at Provo and Salt Lake City (UCA 53-48-4, UCA 53-48-17). Local boards of education have power to purchase or sell school house sites, to make improvements on the sites, and to construct and erect school buildings.



**Nation**

**What Federal Agencies Have Significant Authority That Affects Land Use in Utah?**

The federal agencies which have management control of public lands in Utah significantly affect land use in the state. The most significant agencies are the Bureau of Land Management, the National Park Service, the Bureau of Indian Affairs, the Bureau of Reclamation, the Forest Service, and the Department of Defense. State and local governments have no jurisdiction over federal lands or activities on them unless it is received by agreement from the managing agency.

What federal agencies have jurisdiction over land in your county?

# EVALUATION

The most important step throughout the land use decision-making process is evaluation. At each step these questions must be asked:

.. How well did we do?

.. What could we do better?

How well did we do in achieving the stated purposes of this workbook?

Why is it important to include in the decision-making process

.. the people of your community?

.. a survey of those parts of the natural landscape affected by the way land is used in your community (a Natural Resource Inventory)?

Make a list of ideas you have picked up at this workshop that would be useful in the planning activities of your community.



# CONCLUSION

Now that you:

- . . understand a way to make land use decisions,
- . . know why it is important to involve the people of your community and use a natural resource inventory as you go about making these decisions, and
- . . have just made a list of useful ideas that you have picked up today.

Why don't you take them home and try them out? Good luck!

