THE ADEQUACY OF THE RICH COUNTY 701 PLAN IN CONTROLLING THE PATTERN AND INTENSITY OF LAND USE AROUND BEAR LAKE, UTAH

WILLIAM N. WOOD

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THE ADEQUACY OF THE RICH COUNTY 701 PLAN IN CONTROLLING
THE PATTERN AND INTENSITY OF LAND USE
AROUND BEAR LAKE, UTAH

by
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A thesis submitted in partial fulfillment
of the requirements for the degree
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William Nelson Wood
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ABSTRACT

The Adequacy of the Rich County 701 Plan in Controlling the Pattern and Intensity of Land Use Around Bear Lake, Utah

by

William N. Wood, Master of Science

Utah State University, 1972

Major Professor: Craig W. Johnson
Department: Landscape Architecture and Environmental Planning

The purpose of this thesis is to evaluate the potential effectiveness of the Rich County 701 Plan as a planning and management aid in controlling the development around Bear Lake. The success of the Plan in integrating cultural data and natural resource data is judged on the basis of professionally accepted techniques of resource analysis and on the availability of pertinent planning data.

Guidelines for evaluating the land use controls for Bear Lake that will result from the Rich County 701 Plan are derived from the shoreland ordinances of Wisconsin and Minnesota and the lakeshore experiences of New Hampshire and Vermont.

(101 pages)
Figure 1. Location map
Figure 2. Detailed map of Bear Lake
CHAPTER I
INTRODUCTION

Origin of the Study

Bear Lake on the northeastern Utah, southeastern Idaho border is a valuable resource. Controlled release of water stored in Bear Lake has averted downstream flooding during almost every spring runoff since 1918. Millions of dollars of crops have been saved in drought years, while water released primarily for irrigation is also used in five downstream hydroelectric plants with a combined generating capacity of 125,500 kilowatt hours (Utah Power and Light, 1971). Moreover, because of its attractiveness and size, Bear Lake frequently had 6,000-7,000 recreators on a summer weekend with up to 20,000 visitors on a July 4th weekend. These recreators produce better than $130,000 in annual income for Rich County (National Science Foundation, 1971).

If public and private development of Bear Lake is to continue unchecked, the destruction of the Lake as a valuable resource is probable (Hollingshead, 1971). To date, shoreland planning for Bear Lake has been inadequate (Rich County Combined County Commission, 1972). The rural setting of the Lake has probably contributed more to this ineffectual planning than any other single factor. Alan J. Hahn succinctly defines the problem when he says:

Planning programs in rural areas often fail to respond to the informal nature of rural government, the slower pace of change and smaller number of perceived crises, and special problems of meeting costs and demands for professional personnel in rural communities (Hahn, 1970, p. 44).
In late 1970, Rich County's concern for the future of Bear Lake prompted the Rich County Commissioners to seek Federal planning assistance. Through the Utah State Planning Coordinator, Rich County contracted for a comprehensive master plan funded by the Department of Housing and Urban Development under the Urban Planning Assistance Program authorized by Section 701 of the Housing Act of 1954, as amended.

No single planning effort will be a panacea for guiding the development of a superb resource such as Bear Lake. The planning process is continuous. However, if the planning profession is to become an influential force in land use decisions, the planner's techniques and recommendations must be put into perspective (Carroll and Wingard, 1965), especially when a rural government, such as Rich County, seeks planning assistance as an appropriate and needed public activity.

Problem Statement

An increasing number of people who enjoy the beaches, scenery, and other assets of Bear Lake's 140 square miles of surface area and 48 miles of shoreline are creating pressures which threaten to diminish their own enjoyment. Increased user demands have aggravated the symptoms of poor planning. These symptoms are becoming evident to recreators and to the people of Rich County.

Inadequate recreational facilities have led many boat owners to dump sewage directly into the Lake, while for the same reason, campers have constructed make-shift out houses that border too close to the Lake. Soil unsatisfactory for effluent disposal, a high water table, and misuse of the septic tank have created bad shoreline odors and dark pools
and for land use and zoning in order to qualify for renewal and special housing assistance.

An appropriation of one million dollars to be mated by the recipient on a 50-50 basis initiated the Program. The communities were expected to provide 20 to 25 per cent of the local share with the state providing the remainder. The Program's thrust was to support "... the experience and leadership of the state, metropolitan and regional planning agencies" with the Federal Government providing "financial control and necessary technical advice and assistance." (Housing Act, 1954).

The enabling legislation for this Urban Planning Assistance Program has been modified in almost every congressional session since 1954. The Program was extended to disaster and federally impacted areas. The Housing Act of 1959 raised the unit on eligible communities from 25,000 to 50,000 and encouraged planning on a continuing basis with permanent planning staffs (Housing Act of 1959).

Elegibility for 701 assistance

The Housing Acts of 1964 and 1966 extended the scope of the Program further, so that by December 1968 HUD was authorized under the 701 Program to make grants to:

A. State Planning Agencies for planning activities in (1) cities and other municipalities having a population of less than 50,000; (2) counties without regard to population, except counties over 50,000 must coordinate their planning with a metropolitan area of which they are a part; (3) any group of adjacent communities having a
of polluted water in front of many homes (National Science Foundation, 1971). In the continued absence of control, the new homes that will be built in the Bear Lake area and the growing number of visitors to the Basin will undoubtedly further speed the loss of a valuable resource.

It is difficult to quantify the exact number of homes that will be built around Bear Lake in Rich County. Much of this development pressure on Bear Lake will depend on the ratio of speculative landowners to second home builders. Equally important is the quality of the recreational and living facilities available. On the basis of approved subdivision plats, it does not seem unreasonable to expect, within two years, 50-100 new recreational homes around the Rich County end of Bear Lake.

A visual survey of the 10-mile shoreline from Laketown north to the Idaho border on the west shore uncovers a host of incompatible uses. Scattered cottages, gas stations, motels, and resorts merge with other commercial ventures to form a near continuous ribbon of building. A first row of crowded structures is followed by a second and third until the area far back from the shoreline is filled. Natural vegetation and scenic beauty are destroyed, nutrients and pollutants concentrate in the ground water and the Lake, and steep slopes and areas subject to flooding are unwisely developed. The emerging pattern is traditional (Minnesota Department of Natural Resources, 1971b).

The splintered planning policies and unequal degree of involvement of the two states and the two counties having jurisdiction over Bear Lake hinders the rational development of such an integrated natural system. Further compounding the problem is the transitory nature of many Lake users who have little interest or impact on guiding planning
total population of less than 50,000 and having common or related urban planning problems; (4) municipalities or counties in an officially designated Development District Disaster Area; and (5) Indian reservations;

B. State, Metropolitan and Regional Planning Agencies for metropolitan or regional planning;

C. Cities within metropolitan areas for planning which is part of comprehensive metropolitan planning and which shall supplement and be coordinated with state, metropolitan and regional planning;

D. Economic development districts designated by the Secretary of Commerce;

E. Cities, other municipalities, and counties which are (1) in redevelopment areas or economic development districts; or (2) have suffered substantial damage resulting from a major catastrophe and has been designated a disaster area by the President;

F. Official government planning agencies for (1) areas where rapid urbanization has resulted or is expected to result from the establishment or rapid and substantial expansion of a Federal installation; or (2) areas where rapid urbanization is expected to result on land developed or to be developed as a new community;

G. States for state and interstate comprehensive planning and for research and coordination activity related thereto;

H. State planning agencies for assistance to district planning or planning for areas within districts;

I. Metropolitan and regional planning agencies (with state approval) for the provision of planning assistance within the metropolitan
area or region to cities, other municipalities, counties, groups of adjacent communities, or Indian reservations;

J. Official governmental planning agencies for any area where there has occurred a substantial reduction in employment opportunities as a result of (1) the closing (in whole or in part) of a Federal installation, or (2) a decline in the volume of Government orders for the procurement of articles or materials produced or manufactured in such areas;

K. Tribal planning councils or other tribal bodies for planning for an Indian reservation;

L. Various regional commissions for planning in Development areas;

M. Local development districts for planning in the Appalachian region;

N. Organization of public officials representative of the political jurisdictions within a metropolitan area, region or district;

(Housing and Urban Development Act, 1968).

Administration and financing of 701 Planning

The administration and financing of the 701 Program involves four levels of government: the HUD Central Office in Washington; the ten HUD regional offices; the state administrative offices; and the applicant local governments. Applications for 701 funding are submitted by the community to the state for approval. The state, in turn, uses an annual grant approach through which state planning agencies submit one annual application to their HUD regional office. Each state divides and distributes its one annual grant among qualifying recipients.
Participation in 701 Planning

Before the 1959 Amendment, the 701 Program resembled a "demonstration" program with a limited budget and a questionable life expectancy (Hammer, Green, Siler Associates, 1969). Since its inception in 1954, the Program has increased in scale. During 1969 HUD awarded 535 701 grants totaling $30.1 million. Of the 1969 grants, $8.9 million went to small communities and counties; $2.2 million to State Advisory Services, and $4.5 million to states for statewide planning activities. The balance of the funding was for other jurisdictional areas.

Metropolitan and regional planning agencies received $21.4 million in planning assistance while $.9 million went to planning areas such as Indian reservations, disaster areas and federally impacted areas. A total of $2.4 million funded 13 study, research and demonstration grants in the field of comprehensive planning.

The 701 Program in Utah

Early 701 Planning in Utah

The State of Utah's involvement in 701 Planning postdates the Program's inception by about a decade. In 1964 the office of the Utah State Planning Coordinator applied for and received its first 701 funding. In 1969 the Utah State Office of Local Affairs was formed to assist with city and county problems, and assumed the administration of 701 Programs. Most recently, the Office of Community Development, organized in May 1971 and reporting directly to the Governor's Office, is responsible for all HUD 701 Programs in Utah (Merrill, 1971).
Participation in 701 Planning

HUD 701 funding has definitely stimulated community planning activity in Utah. By June 1972, every county in Utah will have initiated a HUD Comprehensive Master Plan. This increased planning activity, and the resulting identification of additional planning needs, have encouraged Utah to apply for a 1972 HUD 701 grant of $450,000--$100,000 more than last year's grant (Ockey, 1972).

Rich County and the 701 Program

Initial exposure

Rich County, in particular, was made aware of the 701 Program in 1969. Representatives from the Office of the State Planning Coordinator visited the Rich County Commissioners and explained the benefits and availability of the 701 Program (Merrill, 1971). The interest generated from this visit, combined with a growing concern for development pressures on Bear Lake, resulted in a 701 Contract for planning assistance for Rich County. The Contract was entered into on the 6th day of November, 1970, by the State of Utah, the County of Rich, and Planning and Research Associates of Salt Lake City, Utah.

Services of the Rich County Planning Consultant

Kent D. Elwell of Planning and Research Associates is personally in charge of the Rich County Plan on behalf of the consultant. He is responsible for fully coordinating his services with the activities of the Planning Commission in Rich County. This includes attending meetings and public hearings as is necessary and appropriate for the planning
studies specified by the Contract. With little exception, Planning and Research Associates is given considerable latitude in the organization and administration of the Program. To quote Article 1 (A) of the Contract, "The Consultant shall follow generally accepted planning practices consistent with the highest professional and technical standards." In more general terms HUD proceeds on the central principle that:

Each grantee, in recognition of its own unique combination of staff facilities and experience, has the primary responsibility for employing whatever form of organization and management techniques may be necessary to assure proper and efficient administration. (U. S. Department of Housing and Urban Development, p. 7)

Compensation of the Consultant

The total amount payable to the Consultant for the services to be performed as specified by the Contract is $14,800 dollars. Planning and Research Associates has opted to receive monthly payments in the amounts which represent the percentage of each of the individual planning work items completed during the preceding month (State of Utah Planning Coordinator, 1970).

Supervision of the Consultant

The services performed by the Consultant are under the general supervision and direction of a representative of the State Planning Coordinator (State of Utah Planning Coordinator, 1970). Richard Merrill of the Department of Community Affairs is the representative, and his role in supervising is procedural with very little substantive input (Merrill, 1971). Planning and Research Associates is also under the immediate supervision and direction of the chairman of the Rich County Planning Commission. Both the State Coordinator and the county
representative receive a one or two page quarterly progress report on the Consultant's work.

**Services provided by the County**

Rich County agrees to cooperate with the Consultant to the degree it does not conflict with their other responsibilities. The County further agrees to furnish without charge copies of previously prepared reports, maps, plans, survey, records, ordinances, codes, regulations, and information related to the planning studies specified in the Contract. Any office space needed in the County for the performance of services specified by the Contract will be made available to the Consultant without charge. Moreover, the County will aid the Consultant in obtaining necessary data from other public agencies or offices, local business firms, and private citizens (State of Utah Planning Coordinator, 1970).

**Payment by the County**

Rich County and the communities in Rich County, upon execution of the Contract, paid the "Urban Planning Account" of the State of Utah $4,134.00 in cash and will contribute $1,200 in kind services.

**Time schedule**

According to the Contract, all services required of the Consultant should be completed by June 30, 1971, unless extended by mutual consent of the representative of the Coordinator, the representative of the County, and the Consultant (State of Utah Planning Coordinator, 1970). At the present time, the completion date has been extended by at least ten months.
Work elements of the Plan

A tabular summary of the work elements in the Rich County Contract reads as follows:

1. Program organization and procedure
2. Base mapping and aerial photography
3. Land use surveys
4. Zoning and subdivision studies near Bear Lake
5. Public facilities analysis
6. Background, economic, population and housing studies
7. Planning goals and policies
8. Preliminary Master plan
9. Final Master plan
10. Zoning ordinances
11. Subdivision ordinances
12. Capital improvement program

Importance of Consultant's planning ability

The overview of 701 Planning presented in this chapter highlights the development and administration of the 701 Program. Emphasis on the Rich County Planning Contract underlines the importance of the Consultant in deriving the Rich County Comprehensive Master Plan.

The latitude granted to the Consultant, under 701 guidelines, to develop the Plan's policy objectives is significant. Once the state's reconnaissance survey has described eligible work items for the Rich County Contract in conjunction with the Consultant and Rich County, Planning and Research Associates is given full discretion for the organization and administration of the program. Although a certain number of
citizen meetings and quarterly reports are required, the Consultant must decide to what extent he will supplement available and pertinent information with surveys, questionnaires, and further research. The Consultant must also decide how responsible he is to provide planning alternatives for the policymakers or to lobby for a specific set of recommendations.

The inherent weakness in allowing the private consultant considerable freedom in developing his own planning process is that the professional consultant in 701 Programs has frequently been a "generalist planner" with little of the technical, political and administrative competency of his urban counterpart (Hammer, Greene, Siler Associates, 1969). As a result, the plan of the small community planner is generally concentrated in areas where he has had in-depth training.

Summary

The foregoing perspective of 701 Planning indicates that the adequacy of the Rich County Plan in controlling the pattern and intensity of land use around Bear Lake rests heavily on the planning ability of the Consultant.

If the Consultant fails to follow generally accepted planning practices consistent with the highest professional and technical standards in preparing the Rich County 701 Plan, the Plan will do little more than perpetuate the hodge-podge of development now occurring around Bear Lake.

The Consultant's approach to the Rich County Plan as it applies to Bear Lake will be discussed in the following sections. Specific
emphasis will be placed on the Consultant's lack of success in integrating cultural and natural resource data with predefined and self-imposed planning parameters.
Figure 4. Visual blight
policy, but rightfully expect public access to Bear Lake. Coupling the needs of this user group with the behavior and demands of the land speculator and the expectations of the established landowner begins to underline the complexity of the shoreland management decisions that have to be made.

The challenge for the Rich County 701 Plan is to identify the probable demands on the shoreland of Bear Lake and then, based on these demands, recommend a planning program that will be understood and implemented by the rural decision makers. The $16,000 allotted for this Plan offers the consulting planner an opportunity to make some well-founded planning recommendations.

On the other hand, while HUD 701 planning has stimulated, deepened, and broadened planning activities in many small communities, it has been only moderately effective. Too frequently stereotyped 701 Plans that are too rigid and time bound, with little provision for plan implementation, have frustrated the efforts of many communities (Hammer, Greene, Siler Associates, 1969).

Realistically, many of the problems confronting Bear Lake cannot be readily or thoroughly resolved. From the viewpoint of an environmental planner, it is disheartening to see that the little interpretative natural resource data now available on Bear Lake is being ignored by the governmental bodies and by certain professional planners who should be incorporating this data into an effective shoreland management policy.

Objectives

The Rich County 701 Plan, scheduled for completion late this winter, evolved from the development pressures on Bear Lake (Merrill,
Acceptance of the general plan concept

Acceptance of the general plan concept is not universal (Eldredge, 1967). A political science professor at UCLA (Hagmen, 1971), for instance, sees little value in Master planning and maintains the only reason such planning is done is that it is required by some state laws and that there is a Federal spigot providing funds for those people who are trained to do Master Plans.

General findings on the effectiveness of 701 Planning

An in-depth commentary on 701 Planning in small communities is provided by Rammer, Greene, Siler Associates (1969) in a report entitled Comprehensive Planning Assistance in the Small Community. This report consolidated the findings and recommendations of four consultants who studied the effectiveness of the Federal Urban Planning Assistance Program (Section 701) in small communities under contract to the Department of Housing and Urban Development.

While all of the general conclusions of the Rammer, Greene, Siler Associates study do not apply directly to Rich County's planning effort, these conclusions are important in understanding 701 Planning. HUD has taken a concerned look at this report and is in the process of making specific program changes in response to the findings presented.
The general conclusions of the Hammer, Greene, Siler Associates report are as follows:

**Principal findings and conclusions**

1. The 701 Program has stimulated planning in many small communities throughout the nation and has made it possible for other communities to broaden and deepen their existing planning activities.

2. Planning supported by the 701 Program has been only moderately effective as a tool for guiding and implementing public policies in small communities. The comprehensive plans have become stereotyped and are often not designed to deal with the important problems of the community. They are often too rigid and long range to serve current or developing needs of the community or to be related to the community's planning and fiscal capabilities.

3. Too much emphasis has been placed on the production of planning documents and not enough on the process of planning. Planning was found to be most effective in those communities with continuing programs and was a virtual loss in communities in which the completion of the comprehensive plan was not followed up with professional assistance on a continuing basis.

4. There is a close correlation between the effectiveness of planning and the relationship of the planning function to the decision-making apparatus of the community. The most effective programs were those that were directly responsible to the chief executive of the city.

5. State and federal planning and actions were found to be rarely coordinated with local community plans, and often to be directly in conflict with such plans.

6. As to professional performance, there was found to be no significant variation in the quality of work completed by the state, local, or consultant staffs. Regardless of responsibility, the work was found to be generally uneven, with the best and most effective work being done in the traditional areas of physical planning and land use controls, and the least effective in social, economic, and fiscal areas. Capital budgeting, the key implementation tool of planning, was an area of particular weakness in most of the work reviewed.
7. Turning to the administration of the program, it was found that the machinery was clogged almost from top to bottom. Application and review procedures were complicated, cumbersome, and time consuming. Funding delays had a negative impact on planning effectiveness in some communities particularly when assistance was being requested to meet a specific problem with a time dimension.

Planning Parameters for the Rich County 701 Plan

Difficulty of defining planning parameters

Specific criteria for evaluating a 701 plan cannot be standardized. Unique geography, attitudinal differences among people, and the professional bias of the planner will alter the emphasis and orientation of each plan. What can be evaluated is the planning process followed by the planner. A workable definition for studying the planning process employed in the Rich County Plan is presented in Standards for Planning Water and Land Resources:

The process involves an orderly and systematic approach to making determinations and decisions at each step so that the interested public and decision makers in the planning organization can be fully aware of the basic assumptions employed, the data and information analyzed, the reasons and rationales used, and the full range of implications of each alternative plan. (Special Task Force, 1970, p. V-A-1)

HUD Philosophy

Some parameters have been predetermined in the Consultant's planning process. The broad assumption underlying Planning and Research Associates' work is the stated intent of the Plan to act as a guide to the planning and legislative bodies in the County in directing physical growth and development in order to achieve a well balanced and pleasing environment in which to live (U. S. Department of Housing and Urban Development, 1969).
Contractual components and requirements

The planning process is further structured by the following general components: areas for future residential, commercial, industrial, agricultural, and recreational use; the location of existing and future major highways; and existing and future public facilities (State of Utah Planning Coordinator, 1970).

Also delineating the process is the contractual requirement that the Consultant must coordinate his activities with the activities and programs of federal, state, county, and local governmental agencies including the following:

State Planning Coordinator
State Highway Department
State Fish and Game Department
State Park and Recreation Commission
State Water and Power Board
U.S.D.A. Forest Service
U.S.U. Extension Service
State Soil Conservation Office
County and State Farmers Home Administration Office
North and South Rich County School Boards
Utah State Department of Public Instruction
Cache County, Utah
Summit County, Utah
Morgan County, Utah

Bear Lake County, Idaho
Lincoln County, Wyoming
U. S. Bureau of Reclamation
Utah State Engineer
Utah State Land Board
Utah Travel Council
University of Utah - Bureau of Community Development
Utah Municipal League
Utah Association of Counties
State Office of Economic Opportunity
State Health Department
Utah State Division of Industrial Promotion
Rich County Soil Conservation District
U.S. Bureau of Land Management

This requirement seemingly makes a good deal of sense. Rich County does not own a single parcel of shoreland on Bear Lake, so much of the planning done by the County must be done in cooperation with private, local, state, and federal interests. Realistically, the number of agencies involved presupposes the service of a Renaissance Man with a budget much larger than $16,000 (Berg, 1972).
Rural attitudes

The direction imparted to the Consultant's planning process by the philosophical and contractual statements in the Rich County Planning Contract is relatively clear-cut. Less manageable is the lingering belief in rural areas that all hard working men are of equal dignity and worth and that no man is good or wise enough to have arbitrary power over the use of another man's land (Carroll and Wingard, 1965). The commissioners of Rich County, in many cases, have progressed beyond these beliefs. They are anxious to understand and plan for the changes they see in their communities and around Bear Lake. Stewart Hopkins, Chairman of the Rich County Commissioners, sums up this anxiety when he says, "We have known for some time the regulation and enforcement of these regulations for development have been inadequate . . . we feel that the Comprehensive Plan for Rich County is a real start in determining our problems." (Lloyd, 1971, p. 7).

Limitation of the Rich County decision-makers

There is little doubt that the limitations of local leadership also impose constraints on the planning process. There are members of the Rich County Commissioners and Planning Commission whose families, in addition to themselves, own large tracts of land—some tracts numbering in the hundreds of acres (Brown, 1972). Even though the possibility of their personal interests conflicting with the public interest is real, the local leadership is not solely a self-aggrandizing body. Commissioner Oris K. Cook represents the County decision-makers when he says,
"We've been able to see the ecology of the Lake change and must enforce more strict laws concerning the Lake." (Lloyd, 1971, p. 8)

The problem is that the outmigration in the County has tended to be the younger well-educated residents (Valley Engineering and Planning and Research Associates, 1970). These emigrants are most apt to be the citizens who could best understand, interpret, and enforce land use controls (Carroll and Wingard, 1965).

More than thirty-seven meetings with the people of Rich County have made the Consultant well aware of the strengths and weakness of the Rich County leaders (Rich County Combined County Commission, 1972b).

The professional experience of the Consultant

The pressure for the recreational development of the privately owned land around Bear Lake should be more fully understood by the Consultant than any other individual. All inquiries for subdivision approval and new construction have been referred to him by Rich County. His work in getting developers on Bear Lake to conform with existing land use standards has offered him valuable insight into the technical competence and development philosophies of these developers.

In many ways, the Consultant's systematic approach to making determinations and decisions is predefined. HUD's written philosophy for 701 Plans, the general components of the Rich County Contract, the limitations of the local decision makers, and the development objectives of large landholders around Bear Lake begin to define a planning process that should be employed in the Rich County Plan.
The Consultant's Planning Bias

Difficulty of formulating Master Plan

Even within predefined parameters, the job of the Consultant is not easy. Formulating a viable master plan involves a complex inter-relationship of human, natural, and institutional resources coupled with varying beliefs, values, and attitudes that do not lend themselves to quantitative systematic measurement (Carroll and Wingard, 1965). The expertise of the Consultant is to know when supplemental information is needed and how data should be weighted in importance (Driver, 1969). Clouding the judgment of the Consultant is the fact that virtually every trained planner necessarily fragments reality and focuses it into a particular orientation (Bolan, 1971).

The Cache County 701 Plan

Overcoming, or even identifying, one's own orientation or bias in the planning process is difficult. The Cache County 701 Plan prepared by Planning and Research Associates is a case in point. The planner-in-charge had his academic training in economics. He influenced the preparation of the Cache County Plan to the extent that Professor Craig Johnson, acting Department Head of the Department of Landscape Architecture and Environmental Planning at Utah State University, and Thadius Box, Dean of the College of Natural Resources at Utah State University, have criticized the Plan for its narrow approach. Specific areas of concern are the lack of aesthetic and natural resource input.

In view of the criticism received on the Cache County Plan, one would expect the Consultant to temper his economic bias by adopting a
more inter-disciplinary approach to the Rich County Plan. There is nothing in the planning contract that prevents the Consultant from hiring or consulting a more broadly-based staff than the one draftsman-designer now working on the Rich County 701 Plan. Financial considerations do not appear to be a restraint. Moreover, the Rich County Commissioners would happily approve anything that would expedite their planning efforts (Rich County Combined Commission, 1972d).

Time commitment

The excessive time spent by the Consultant in Plan preparation is serious. The real effectiveness of 701 Planning is highly correlated with the "will" of the local community to solve its problem (Hammer, Greene, Siler Associates, 1969). The belaboured planning process has frustrated the will of the people by failing to provide permanent written land use controls as expeditiously as was implied in the planning contract. At the last Rich County Combined County Commission meeting on March 23, 1972, the Commissioners expressed their disappointment in not having permanent land use controls and enjoined the Consultant to "get on with it."

Summary

The importance of following a well-defined objective planning approach in controlling the development around Bear Lake cannot be overstressed. Historically, 701 Planning has exhibited serious shortcomings. Even within certain planning parameters that have been predefined by HUD philosophy, by planning contract, and by the abilities of local leaders and developers, master planning is still not an easy task.
The Consultant's relationship with Rich County was, at one time, a good one. Their involvement with eleven 701 Plans in four states, its work with the Soil Conservation Service, and its assistance in preparing the Comprehensive Area-wide Water and Sewer Plan for Rich County had earned the firm considerable ethical influence with the people and decision-makers of Rich County.

Unfortunately, the planning process has failed to couple this confidence with a well-defined objective approach to the Rich County Plan. Time delays are beginning to frustrate the "planning will" of Rich County and those developers active around Bear Lake.

The implied danger is real. If cultural and natural resource data is insufficient or not effectively weighted and integrated, the final package of maps, data, policy statements and land use control ordinances for Bear Lake will be of little value. Voids in critical natural resource data or cultural data make the plan subject to question when challenged by other professional planners who may represent developers. Of equal concern is the possibility of legal problems resulting from discriminatory land use controls that have no rational basis (Thomas, 1972).
Figure 5. Feedlot bordering the south end of Bear Lake
Although the citizens of Rich County are a ways away from deferring their local interests to regional or bi-state interests, they do perceive a problem around Bear Lake and have voluntarily sought planning assistance to solve that problem (Elwell, 1971). Their understanding of the demands on Bear Lake are incomplete, as is clearly illustrated by the majority belief that their present (land use) laws are strong enough to be effective, provided they are more adequately enforced (National Science Foundation, 1971). Fortunately, many influential Rich County citizens realize their shortcoming in the planning area and are relying heavily on the 701 Program to provide guidance (Elwell, 1971).

Most of the subtleties and problems of metropolitan areas are imposed on a narrow band of shoreland surrounding Bear Lake. Local businesses want to increase sales, owners of speculative land want real estate prices to rise, and large corporations want to make handsome profits from substantial real estate development. The paradox is that few of the participants are willing to bear the additional cost of environmental protection, when it is the attractiveness of the environment that significantly contributes to their success.

Bear Lake, then, because of its exceptional natural beauty and economic potential is a unique resource that is threatened by the increased activities of man. Unfortunately, the 701 Program has historically produced comprehensive plans that are not designed to deal with the important problems of the community, much less a unique resource (Hammer, Greene, Siler Associates, 1969).
CHAPTER IV
THE CONSULTANT'S EFFORT TO INTEGRATE CULTURAL AND NATURAL RESOURCE DATA

The Optimum Approach

The Consultant's response to the whole planning process for Bear Lake could theoretically and contracturally range from a complete pre-occupation with cultural interests to a total disregard of such interests in favor of a plan based solely on natural resource determinants. An appropriate and practical response would seem to lie in between.

The relationship of natural resource variables to cultural demands must be considered in a comprehensive plan (Carroll and Wingard, 1965). There are two major reasons. First, people's demands on the landscape will not usually spatially organize themselves in relation to the capability of the landscape to support such demands (Steinitz et al., 1969). Secondly, for those who are concerned about the intrinsic capability of the landscape, our mechanisms for economic and political choice will not accurately reflect their desire for environmental quality (United States Department of the Interior, 1970).

The Rich County Preliminary Master Plan as an Evaluative Standard

Definition of the Preliminary Master Plan

The success of the Plan in prescribing a development pattern for Bear Lake that is compatible with the natural assets of the Lake and with the people of Rich County will be judged on the Rich County Prelimi-
nary Master Plan. According to Article I of the Planning Contract, the Preliminary Master Plan is a draft form of what the Consultant sees to be the final completed plan. This draft includes maps, reports, and other documents that are submitted to the State Planning Coordinator and to the Rich County Planning Commission for discussion, review, and approval.

**Importance of Preliminary Master Plan**

The presentation of the Preliminary Master Plan offered considerable insight into the potential effectiveness of the Rich County Plan in controlling the pattern and intensity of land use around Bear Lake. For the first time, the Consultant was presenting planning alternatives and recommendations to the Commissioners. The integration of economic data with natural resource data was being evaluated. In areas where the Consultant's planning proposals deviated from fact or expressed desires, the Commissioners promptly spoke out. No doubt, the questioning and the dialogue that took place between the Commissioners and the staff of Planning and Research Associates during the three formal presentations of the Preliminary Master Plan began to formalize the importance the Rich County Commissioners would ultimately place in their 701 Plan.

Moreover, the land use decisions made in the Preliminary Master Plan have interesting legal implications. If the zoning and subdivision ordinances that are being written under the 701 Contract are poorly written or based on subjective criteria, there is a reasonable chance that a property owner might attempt to sue the County (Kennedy, 1972).
Such a suit could damage the County's confidence in their 701 Plan and discourage their efforts to enforce land use controls. The entire matter of land use ordinances will be discussed in the following chapter.

The remainder of this chapter will analyze the actual planning process followed by the Consultant. The first section will deal with the social, political, and economic data collected for the Preliminary Master Plan, and the second section will relate to natural resource data.

Techniques Employed in Gathering Social, Political, and Economic Data

State of the art of planning

There is little precedence for evaluating the adequacy of the social, political, and economic data employed in the Rich County Plan. The "state of the art of planning" is very weak in handling this type of data (Bolan, 1971). One social scientist (Butler, 1972) has postulated that restaurant gossip, random sampling, and the projections of land developers might be as close as a planner could come in assessing the social, political, and economic climate of Rich County. In this light, the following analysis of the techniques employed in the planning process in compiling social, political, and economic data will be largely subjective.

Importance of cooperation

The cooperation the Consultant has received from private, local, state, and Federal sources has facilitated his planning (Elwell, 1971).
This cooperation and interaction is essential in a 701 Program. By nature, the 701 Plan is a short-term terminal contract arrangement that will only be effective to the extent it improves the ability of local government officials to make sound planning decisions. The Plan will also only be as implementable as the decision makers want to make it (Hammer, Greene, Siler Associates, 1969). So in the broadest sense, planning becomes a social process as John Friedman suggests when he says:

In action planning . . . the planner moves to the foreground as a person and autonomous agent. His success will in large measure depend on his skill in managing interpersonal relations. (Friedman, 1969, p. 312).

There is some question in the writer's mind whether in Consultant has been successful in managing his interpersonal relations and, thus, gaining the maximum amount of cooperation possible. Commissioner Cook commented on the extremely defensive attitude Planning and Research Associates assumes toward Sweetwater Incorporated. This in itself does not preclude good planning providing the planner is technically competent and a good administrator. It does reinforce the need and the validity for more than a one or two man approach to comprehensive planning. A planning team would be more likely to round out and augment each other's weaknesses in approach and knowledge.

**Federal cooperation**

On a national scale, the **Rich County Comprehensive Area-wide Water and Sewer Plan** was funded by the Farmers Home Administration of the United States Department of Agriculture. Of like significance is the Informal Congressional Hearing Concerning Bear Lake held by Repre-
sentative Sherman Lloyd on August 12, 1971. This Hearing brought
together decision makers and authorities on Bear Lake from both Utah
and Idaho. Such an encompassing hearing would be virtually impossible
for a planning consultant to organize, yet it should add immeasurably
to the Consultant's understanding of the problems and possible planning
solutions for Bear Lake.

The list of participating speakers at the hearing reads as follows:

Representative Sherman Lloyd, Utah
Representative Gunn McKay, Utah
Representative Orval Hansen, Idaho
Stewart Hopkins, Chairman Rich County Commissioners, Utah
Oris K. Cook, Commissioner Rich County, Utah
Gordon Harmston, Director of Natural Resources, Utah
Walter Ward, Chairman Bear Lake County Commissioners, Idaho
Lynn M. Thatcher, Deputy Director of Health in charge of the
Environmental Health Program for Utah State Department of Health
Jack B. Jelke, Environmental Health Supervisor for the Southeast
District of the Idaho Health Department
Clarence A. Anderson, Utah State Director of the Farmers Home
Administration
Donald J. Watkind, Hydraulic Engineer, Utah Power and Light
Ferrell Horseley, Bear Lake Property Owners Association
Austin Erickson, Soil Correlator, Soil Conservation Service of Utah
Richard Fuller, Project Director, National Science Foundation Study
on the Effects of Pollution on the Bear Lake Ecosystem

State cooperation

Equally helpful and important to the Consultant in his planning
process is the attention Bear Lake has received on a State level. The
Office of the Utah State Planning Coordinator was instrumental in con-
tacting Rich County and promoting 701 Planning as a needed public
activity for the County. The Deputy Director in charge of Environmental
Health for Utah, the Director of Natural Resources for Utah, and the
Chief Hydraulic Engineer for Utah Power and Light are cooperatively
working, within the limits of their budgets, to effectively cope with the development pressures on Bear Lake (Lloyd, 1971).

Special assistance from the Bureau of Community Development at the University of Utah has given Planning and Research Associates pertinent economic, population, and public facilities data on Rich County. Much of this basic data was compiled and presented for the first time in the Rich County Water and Sewer Plan. This data has been widely accepted by both local and state agencies (Lloyd, 1971).

Rich County Citizens Council

The Rich County Citizens Council was organized by the County Commission around a format recommended by Kent Elwell. The section on the "Purpose for Citizen's Council Study" in Master Plan Goals and Policies Rich County, Utah, August 1971, reads as follows:

In order for the Master Plan to be truly effective, it should not only be approved by the people of Rich County, but must actually incorporate the citizen's expressed statement of goals to be achieved and policies to be followed in the development and implementation of the plan over years ahead. In order to determine what the average Rich County citizen desires for the physical development of Rich County, it was determined that a representative group of citizens should be appointed by the officials of each community and charged with the responsibility of developing and recommending guidelines for future growth. (Planning and Research Associates, 1971, p. 4)

The Council consisted of approximately thirty citizens with a broad range of backgrounds and interests. Each committee within the Citizen's Council met several times to study and develop recommendations. The Committees dealt with:

1. Land Use
2. Community Image and Environment
3. Resource Development
4. Business Trades and Services
5. Public Facilities and Services
6. Economic Growth and Development

The Council's final report recommends goals to be achieved, policies to be followed, and general guidelines to be adhered to in formulating a plan for the guidance of the physical development of Rich County and its communities. As might be expected, the majority of these recommendations are an outgrowth of the development pressure being exerted on Bear Lake.

Concern for Rich County Goals

In spite of excellent cooperation from federal, state, and local sources, the Plan seems inadequate in incorporating the citizen's goals and desires into the Preliminary Master Plan. There was disapproval by the Rich County Commissioners when the Consultant made no reference to the Commissioners' proposed siteing for a new access highway to Rich County (Rich County Combined Commission, 1972b).

The Commissioners' request for information on a proposed airport site, or the expansion of existing airport facilities, had been overlooked. In addition, goals and policies expressed in the Rich County Citizens Council concerning studies to assist business and farms in becoming more productive, and in identifying and controlling potential areas of flooding were not mentioned in the Preliminary Master Plan.
Qualification of the Economic Assumptions of Rich County Combined Commission

The Bear Lake development syndrome

Much of the Rich County Preliminary Master Plan is based on the prevalent economic assumption among the Rich County Combined Commission that recreational development around Bear Lake will be the County's saving grace. The largest developer now active on Bear Lake did employ forty-one people during the last six months of 1971. This was quite a "sweetner" for a County that has just been approved as a Title I Section I priority area for federal funds under the Public Works and Economic Development Act of 1965. However, the true value of such recreational development might not be as permanent or as large scaled as the people and developers would like to think.

John D. Hunt, Chairman of the Institute for the Study of Outdoor Recreation and Tourism at Utah State University, regards any income-producing recreational development at Bear Lake as a marginal investment. He feels the potential of the area as a four seasons resort is limited by accessibility, the facilities at Beaver Mountain, and the good available snowmobile country closer to centers of population. His data conclusively indicates that the nearby Utah, Idaho, or Wyoming recreator at Bear Lake is not the big spender. Moreover, the recreator who does spend the quantity of money needed by Rich County will be lost to the tourist nodes of Salt Lake City or the Yellowstone-Jackson-Teton area (Hunt, 1968).

In view of John Hunt's research, Brian Swinton's (1971) statement that the sole purpose of Sweetwater Incorporated in developing the Rich
County portion of Bear Lake is to provide a first-class recreational complex and second home development primarily for families who reside in Utah does not seem encouraging. As of July, 1972, Sweetwater will have sold approximately two hundred and forty lots (Swinton, 1972). If the majority of these lot owners are land speculators, Rich County will reap few economic benefits. If the preponderance are intent on building second homes, the opportunity for a successful recreation development that will boost Rich County's economically depressed base is also marginal (Hunt, 1972).

The Preliminary Plan does not appear to have placed the whole development issue of Bear Lake into proper perspective. Economic data published by the Institute for the Study of Outdoor Recreation and Tourism at Utah State University in 1968 was overlooked. More distressing is the fact that agriculture and mining, two of the largest sources of personal income for the citizens of Rich County (according to figures in the Comprehensive Area-wide Water and Sewer Plan prepared for Rich County by Planning and Research Associates and Valley Engineers), have not received the attention in the Preliminary Master Plan their economic importance warrants. Other than physically identifying existing areas of agriculture and mining, no further study was made of more suitable sites for farming nor were recommendations made for providing for the expansion of the County's basic commercially exploitable mineral, phosphate rock.

The trade-off situation

Economically-based land-use decisions remain with the people of Rich County. However, where there is a trade-off situation between
farming, and selling or developing farm land, it is the writer's feeling the Plan should make the implications of each course of action known. This has not been done.

Natural Resource Considerations and the Rich County Preliminary Master Plan

State of the art

There is no one method of natural resource analysis that is designed for a water body like Bear Lake. Several styles of resource analysis can be defined. Each analytical method can be described in increasing order of complexity and usefulness for planning policy and implementation (Steinitz et al., 1969). Ultimately, the Consultant must synthesize, adapt, and integrate from all planning processes that approach that will allow him to come up with a "best guess" solution within the boundaries of his planning contract.

Insuring that the planner's approach is an optimum one is difficult. As has been shown in the previous chapter, every planner has a built-in bias because of previous experience and training. Since the Plan has a strong economic bias with little emphasis on natural resource elements, it is at an immediate disadvantage. The Plan lacks the proper background for identifying and analyzing relevant natural resource features of the Bear Lake area. In addition, since there is no one method of natural resource analysis for lakes and their surrounding area, a new set of natural resource criteria should be constructed to suit the unique problem situation (Toth, 1968). Again, the Plan is at a disadvantage.
It is the objective of this thesis to evaluate the strengths and weaknesses of the Rich County Plan in guiding the protection and/or development of Bear Lake. Where the Plan's direction and orientation lag behind the problems confronting Bear Lake, alternative planning approaches will be presented.

**Methods of Study**

Identifying the strengths and weaknesses of a plan requires an understanding of the origin and expectations for the plan as well as comparative or base data to evaluate the actual planning concepts presented. If the Rich County Plan meets all the program requirements of a 701 Plan, yet fails to serve Rich County's need for planning assistance around Bear Lake, then the Plan will be of little value.

Interviews with Richard Merrill, Director of Community Development for Utah, and Kent Elwell, planning consultant for the Plan, have provided insight into the evolution of the Rich County Plan. A copy of the Rich County 701 Planning Contract and a HUD handbook, *Guidelines Leading to a Grant*, have defined what is required for project completion.

Attendance at the preliminary presentation of the Rich County 701 Plan in February and March, 1972, and a review of the transcript of an August 12, 1971, Federal Hearing on Bear Lake helped to indicate how willing Rich County property owners and decision makers are to alter their attitudes and decisions in response to planning recommendations.

The value of the professional planning assistance made available to Rich County through the 701 Program was appraised on criteria drawn from non-HUD sources. *A Comparative Study of Resource Analysis Techni-

The actual process employed in obtaining natural resource data for Bear Lake is typical in that the Plan has drawn upon available information found in published sources (Steinitz et al., 1969). It has relied upon a soil structure and land use map prepared for Rich County by the U.S. Soil Conservation Service. Information on ground water aquifers, mineral deposits, and chemical analyses of water from sources in the vicinity of Bear Lake was obtained from a report published by the Utah Geological and Mineralogical Survey in 1969 entitled "Geology for Planning - Bear Lake Area, Rich County."

Selected meetings, letters, and reports from the State Engineer's Office, the Director of Natural Resources, the State Department of Health, and Utah Power and Light have further equipped the Consultant with information on the natural resource determinants around Bear Lake.

**Established resource analysis methods**

A Comparative Study of Resource Analysis Methods (Steinitz et al., 1969) offers valuable guidelines in appraising the natural resource considerations made in the Rich County Preliminary Master Plan. Although some of the sixteen resource analysis methods in the Study cannot be adapted to the Bear Lake area because of their inventory orientation and scale, three methods seem applicable. The method of G. Angus Hills, Philip H. Lewis, Jr., and Ian L. McHarg are widely enough published and evaluated in planning literature to have some transferral value to the Bear Lake Area.

The following chart indicated those natural resource variables that Hill, Lewis, and McHarg employ in their resource analysis methods.
as compared to those variables that Planning and Research Associates actually presented in overlay fashion in the Preliminary Master Plan.

**Comparative natural resource matrix**

**Frequency of use of natural resource variables**

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<th>Lewis</th>
<th>McHarg</th>
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Frequency of use of natural resource variables, continued

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Important Natural Resource Variables not Inventoried in the Rich County Preliminary Master Plan

This comparative chart indicates there are substantial gaps between the natural resource variables inventories in three accepted approaches to resource analysis and the natural resource variables inventoried in the Rich County Preliminary Master Plan. However, as Steinitz et al. (1969) point out, the comprehensiveness of a method does not imply a judgement of its quality, for several resource analysis methods which as purely descriptive are so at an exceptionally high standard; while other methods, which attempt complete resource and analyses plans, do so in a seemingly superficial manner.

Unfortunately, the gaps in the natural resource variables inventoried in the Preliminary Master Plan have not been compensated for by a high standard of purely descriptive resource analysis. In fact, there has been very little consideration for integrating the capability of the natural resource base of the Bear Lake area with cultural demands.

Hill, Lewis, and McHarg considered the five general variables of climate, vegetation, topography, wildlife, and visual quality important enough to be inventoried. The Consultant has not inventoried these variables. The need for these general variables in land use planning is well established.

Climate

Erratic weather patterns and gross climatic differences around the Lake did not enter into the Plan. Such climatic considerations as prevailing winds and microclimate should be significant variables in
locating all land uses, especially beaches and choice agricultural sites (Olgyay, 1963).

Vegetation

The type and quality of vegetative cover around Bear Lake was not referred to in the presentation of the Preliminary Master Plan. Natural associations, and shore and bank communities are indicators of a host of physical factors important to the planner (Billings, 1968). Loss of vegetation through overdevelopment can reduce soil stability, making it susceptible to natural movement and erosion. Equally significant around Bear Lake is the potential unnatural visual scars that are possible with the loss or impairment of vegetation.

Topography and visual

Like all natural resource valuables, topography and visual quality are interrelated. The general category of topography is important in identifying sites physically suited to specific land used such as hiking, skiing, and building. When coupled with visual considerations, topography is important in defining qualitative spatial variables (Litton, 1968). Areas with exceptional intrinsic potential for experiencing natural beauty, tranquility, or solitude have not been delineated. There is a background of relevant knowledge in environmental psychology that could well have been incorporated in the Plan in identifying such areas (Smith, 1970).

Wildlife

Wildlife, including aquatic life, has been neglected in the Consultant's overlay maps. Significant habitat areas, unique or
endangered species, and feeding areas have not been indicated. The economic and enjoyment potential of fishing and hunting, plus the scientific value of aquatic life to the Utah State University facility (Sigler, 1962), underline the importance of this variable.

**Availability of Information on Natural Resource Variables not Inventoried**

If information on climatic, vegetative, topographic, wildlife and visual variables was not available, the Consultant's lack of attention to these considerations would be excusable. Basically, the planner is a synthesizer of existing information or information that can be extrapolated from existing sources (Driver, 1969). In the case of the Rich County Preliminary Master Plan, all the natural resource data pertinent to the planning study of Bear Lake has not been included.

Dr. William A. Sigler's (1962) statement in 1962 that "most of the current available information about Bear Lake has been accumulated through efforts involving Utah State University "personnel" holds true today. Other than a brief mention of the National Science Foundation Study on the "Effect and Correction of Pollution in the Bear Lake Ecosystem," the Plan has not incorporated the knowledge collected by other University personnel. Although much of this information is not in mapped form, it could be readily mapped at a scale useful in preparing the Plan.

**Climate**

Arlo Richardson (1972) has worthwhile climatic observations on the Bear Lake basin.
Vegetation

Vegetative data would require interpretation for planning. Ben Heywood, the range manager with the Soil Conservation Service, has pertinent vegetative data for the Bear Lake Basin. In addition, Bernice Anderson (1972) felt she could offer some helpful direction to a planner on the importance of the plant communities around Bear Lake. R. R. Moore (1972) of the Forestry Department at Utah State University recommended the U. S. Forest Service as an excellent source of information of vegetation. Moreover, it was his feeling that considerable vegetative information could be gleaned from the aerial photos that the Consultant has for the Bear Lake vicinity.

Topography and visual

Topographic characteristics can be extrapolated from the contoured base maps used by the Consultant. Qualitative spatial variables can be partially identified by interpreting the topography. Although the manmade environment in the Basin is completely out of visual harmony with the natural, the "natives" are aware of where the cars "back up" to look at the views. For example, in their Policies and Goals for Rich County, they identified the highway shed in Lake town as poorly sited because it blocks an attractive view of the Lake.

Techniques for obtaining visual information are available. Most relevant to Bear Lake would be studies done at Lake Tahoe. Most notable are those studies referred to by Theodore S. Wirth and Associates (1972). These are: Visual Pollution in the Tahoe Basin, by the Tahoe Research Group, Visual Landscape Units of the Lake Tahoe Region, by R. Burton
Litton and Kenji Shiozawa, *Scenic Analysis of Principal Travel Routes in the Lake Tahoe Region*, by a Forest Service Task Group, and numerous studies concerning the visibility and visual vulnerability of the scenic amenities in the Basin by Sedway and Cook.

**Wildlife**

First-hand wildlife information is available from Vaughn Thomas, Utah Fish and Game Conservation Office for Rich County. Loss or impairment of wildlife habitat areas is a distinct possibility if such areas are not delineated and planned for. The question might be, so what? Judging from the Rich County Commissioners concern with their deer hunting, anything in the Plan detrimental to the quality of that hunting could be good cause for making the Plan little more than a New Year's resolution.

Dr. William T. Helm (1972) in his capacity as director of the Utah State University experimental station on Bear Lake has information on the aquatic aspects of Bear Lake that should be of value to the Consultant. One of the most basic pieces of information is a map showing the bottom configuration of the Lake.

According to Dr. Derry Koob (1969), the following areas require more research before any absolute management procedures can be recommended for the aquatic environment of Bear Lake. These are:

1. Public health standards and public health sampling techniques
2. Nutrient and algae levels
3. Flushing capacity of the Lake
4. Effect of engineered obstructions in and on the Lake.
Procedural Weakness in Natural Resource Variables Inventoried

The lack of natural resource data in the Rich County Preliminary Master Plan has failed to produce the caliber of planning the 701 Program will allow. The Plan does not clearly spell out which recommendations are based on inadequate or incomplete data, nor does it state in what areas recommendations should be made but have not been made because of a lack of data. No mention has been made of the scale of the data employed in the Plan, so one can only assume that planning recommendations are accurate only to the scale of their coarsest component (Steinitz et al., 1969).

Summary

It is difficult to assess the "adequacy" of the Rich County 701 Plan in integrating cultural and natural resource information. There is no set formula for weighing physical and biological data with social, political, and economic data. Frequently, county development objectives, as is the case with Rich County, are unclear or only partially formulated. In the final analysis, the organization, administration, and content of a plan rests with the planner.

In light of the factors discussed in this Chapter, the Rich County 701 Plan is not of a caliber appropriate to the time and money spent. The planning process has dragged the Plan on to the point where Rich County Commissioners are becoming frustrated and hardships have been imposed on developers. Natural resource data in the Bear
Lake Plan is scanty. The Plan is inadequate in its compilation of natural resource data pertinent to Bear Lake. It has glossed over aesthetic considerations and has made no effort to recommend areas of research that would substantially improve the predictive quality of planning for Bear Lake. The Plan has also failed to put the development pressures on Bear Lake into their proper economic perspective.
gues (Steinitz et al., 1969) published by the Harvard School of Design offered well-developed and professionally accepted approaches to resource analysis techniques used by the planning consultant for the Rich County Plan.

Additional interpretative base data was gathered from the National Science Foundation study on the Effect an Correction of Pollution in the Bear Lake Ecosystem (National Science Foundation, 1971), the Rich County Sewer and Water Plan (Valley Engineering and Planning and Research Associates, 1970), and the Utah Power and Light report on the Bear River-Bear Lake Project (Utah Power and Light, 1971).

Guidelines for evaluating the land use controls that will result from the Rich County 701 Plan were derived from the shoreland ordinances of Wisconsin and Minnesota, and the lakeshore experiences of New Hampshire and Vermont.
Current theory on planning and zoning is that the comprehensive plan indicates a desirable pattern of evolution. Zoning should be in accord with the plan to help guide development to fit the pattern (Haar, 1965). The Rich County Combined Commissioners are typical of rural area decision-makers (Burby and Weiss, 1970) and do not ascribe to current theory on planning and zoning as it relates to a comprehensive plan. The Combined Commissioners are more attuned to a planning approach which operates in terms of individual tracts of land, individual decisions, and individual participants.

It seems reasonable to suggest that the Rich County Combined Commission regards the preparation of the Comprehensive 701 Plan as a mere formality for obtaining the professional and financial assistance needed to prepare zoning and subdivision ordinances. The history of the Rich County 701 Plan discussed in Chapter II indicated that the development pressure on Bear Lake was the stimulative concern for entering the 701 Plan. From the outset the Combined Commissioners' perspective was never aligned with a truly comprehensive plan for Rich County.

The fact that the Commissioners perceive a problem on and around Bear Lake and are willing to implement land use controls to prevent
further deterioration is commendable. If well written zoning and subdivision ordinances are the only work elements of the entire Rich County 701 Plan to be carried through to implementation and enforcement, the Commissioners will have made substantial planning progress.

A General Approach to the Preparation of Zoning and Subdivision Ordinances

A search of the literature has indicated that Bair's (1970) outline of approach (See Appendix A) is the most inclusive and well-tested general method for preparing zoning and subdivision ordinances. This outline should be helpful in evaluating the adequacy of the permanent zoning and subdivision ordinances that will apply to Bear Lake. In using such an evaluative standard, it must be remembered that Utah, Rich County, and Bear Lake are unique areas, and that no general guide to preparing land use controls will reflect their uniqueness.

Achieving a Balance Between Public Use and Resource Protection

Need for such regulations at Bear Lake

Within his framework, Bair (1970) states there will be prime and sometimes secondary locations where regulations relating to specific public purpose should be concentrated. Bear Lake is such a prime location. With up to 20,000 visitors on a peak weekend, some balance between general public use and resource protection must occur to protect the shoreland values that make Bear Lake an appealing facility for recreators and second home owners.
Establishing a philosophy

Minnesota has tackled this difficult question of trying to regulate some balance between general public use and resource protection. The philosophy behind the Statewide Standards and Criteria for the Management of Shoreland Areas of Minnesota is that public waters in Minnesota vary widely in character and use, and an optimum balance between resource utilization and resource protection can be obtained only if each lake has development standards tailored to it (Minnesota Department of Natural Resources, 1971a). A discussion of the criteria used by Minnesota in developing their classification scheme and regulations for their public waters should be helpful in developing a similar line of thought for Bear Lake. Again, this criteria should not be rigidly imposed on the unique conditions of Bear Lake.

Minnesota's Suggested Criteria for Making Lakeshore Management Decisions

Size

Size and shape are important determinants of the capability of a body of water to absorb additional development and recreational use. Larger lakes will not deteriorate as rapidly as small ones when developed due to a larger volume of water and a greater likelihood of some portions of the lake to remain undeveloped.

Crowding potential

The ratio of shoreline to water surface acreage is called crowding potential. This is a good indication of potential development problems.
(Minnesota Department of Natural Resources, 1971). The University of New Hampshire (Ching and Frick, 1971) has used this same relationship of lake shoreline area to shoreline length to develop planning criterion for all the lakes in New Hampshire. Their study goes one step further and directly equates water quality to the number of water acres per user unit.

**Amount and type of existing development**

The amount and type of existing development was weighted heavily in Minnesota's classification process. Existing development, as measured by average density of dwelling per mile of shore, was important since legal constraints dictate a reasonable correlation between newly adopted zoning controls and the existing pattern of development (Minnesota Department of Natural Resources, 1971). For example, strict lot size and setback requirements might be unreasonable if applied to a heavily developed lake.

**Physical characteristics**

A host of physical characteristics were considered in the classification process. Factors such as soil types, geology, vegetative cover, on-shore land slope, off-shore slope, and ecological classification were used as indicators of the suitability of shoreland areas for development. In this case, the ecological classifications had been previously determined by the Division of Fish and Game. Lakes in the ecological class unsuitable for further development had some or all of the following characteristics: shallowness, eutrophic conditions, heavy aquatic vegetative growth, low dissolved oxygen levels, and shallow ground water.
table. Additional data such as water levels, the location of spawning beds, lake bottom contours, median lake depths, water quality, fish counts and locations of control structures also figured into the classification criteria.

Regional considerations

Regulatory and classification policy also considered lakes in their regional context. The demand for shoreland is greater in counties where population pressures are high, or where transportation facilities make access relatively easy. County and regional water needs were also considered.

Need for Specific Lakeshore Controls

Defining the objectives

Once the physical capability of a lake to assimilate increased development and use has been determined on the basis of its size, crowding potential, amount and type of existing development, natural characteristics, and regional considerations, then the next step is to establish a set of land use controls which will guide shoreland development to this pre-defined objective.

Wisconsin and Minnesota statutes

Many features should be included in an ideal lake and shore management program. In attempting to coordinate and encourage land uses that are compatible with shoreland resources and to discourage development that is not, Wisconsin and Minnesota have taken a similar approach. Both programs include special provisions relating to tree
cutting, grading and filling, and lagooning and dredging controls (see Appendix B) all of which are not usually found in local ordinances based on traditional zoning enabling legislation (Yanggen and Kusler, 1968). In a like manner, both ordinances interpret the use of the word "zoning" to include provisions commonly found in sanitary and building codes.

**Result of no controls, or inadequate control**

The point is, the misuse, poor use, and underuse of lakeshores are general problems that cannot be managed by traditional land use controls. Vermont's experience that all lakes of 100 acres or more in the State evidenced three or more of the following problems can probably be generalized to other states with few exceptions. These problems are:

1. Strip development
2. Sewage pollution of lake water
3. Lack of public access
4. Competing use of lakeshore and lake
5. Haphazard placement of mobile homes and cottages
6. Haphazard commercial development
7. Fluctuating water levels
8. Excessive number of docks and floats
9. Low-investment use of lakeshore land
10. Lack of regional planning.

**A model lakeshore development code**

To help define the variety of land use controls that need to be considered for Bear Lake, a Model for Lakeshore Development (Sargent and Bingham, 1969) is presented in Appendix C. This Model is also only a suggested approach for Bear Lake. It will have to be modified and adapted to the actual conditions of the Lake.
Rich County's Need for Lakeshore Controls

The Preliminary Rich County 701 Plan lacks the depth of data required to prepare lakeshore land use controls. A discussion in Chapter IV of those natural resource and cultural variable inventoried in the Plan made no mention of vegetation, on-shore off-shore slope, the location of spawning beds, lake bottom contours, the location of control structures, the crowding potential of Bear Lake, or the average density of dwelling unit per mile of shoreline. Minnesota has considered all of these variables important in writing lakeshore development standards. In addition to these variables, Ching and Frick (1972) maintain that the type and number of users, water temperature, lake flowage, and seasonality of use are necessary planning determinants in preserving the environmental quality of a lake.

The only guidelines offered by the Rich County 701 Planning Contract are that the zoning and subdivision ordinances be in harmony with the Master Plan. On this criteria alone, there appears to be little hope for ordinances that will effectively control the pattern and intensity of land use around Bear Lake. Moreover, continual pressure by landowners and developers to get preliminary land use commitments on specific parcels of land has caused the Commissioners to demand the ten-month overdue zoning and subdivision ordinances. There is the distinct possibility that this pressure could lead to hastily prepared "Model" ordinances.
The Model Ordinance Approach

Value of model ordinances

Model ordinances are workable land use control regulations that can be applied to a number of geographic areas. They have considerable merit. The Model for Lake Shore Development presented in this chapter begins to define the type of controls needed in a lakeshore situation.

As is typical in many communities and might be the case in Rich County, too often ordinances have been overlaid on areas with little attention to overlap, gaps, and conflicts. The shortcomings in model ordinances soon become institutionalized and the problems for those who govern and those who are governed are compounded.

Problems with model ordinances

Many model ordinances in use today were written thirty or forty years ago. They have little relationship to the present wave of "environmental concern." For example, the work of the Environmental Protection Agency highlights a growing awareness of the public (and private) costs of development on areas poorly adapted to the purposes to which they are put. Nevertheless, few model ordinances relate land uses and lot sizes to natural resource variables (Bair, 1970).

John Reps in a "Requiem for Zoning" speaks directly to the problems of a traditional approach to zoning when he says:

Zoning is seriously ill and its physicians—the planners—are mainly to blame. We have unnecessarily prolonged the existence of a land use control device conceived in another era when the true and frightening complexity of urban life was barely appreciated. We have, through heroic efforts and with massive doses of legislative remedies, managed to preserve what was once
a lusty infant not only past the retirement age but well into senility. (Eldredge, 1967, p. 746)

To the extent that state requirements are adequate and well-enforced, confusion, annoyance, wasted manpower, and money can be eliminated by doing away with overlapping portions of local controls. Further flaws in the "untailored approach" to land use controls are reflected in "Model" subdivision ordinances. In many of these regulations, a minimum lot size for single family homes is based on the desirability of space for a subsistence garden to help meet food requirements during the depression.

The potential problem is that the Rich County Commissioners and the Rich County Planning Commission have no criteria to evaluate the land use controls being prepared by the Consultant. If, in their anxiety to adopt permanent zoning and subdivision ordinances, the Combined Commission adopts a land use control program with a limited overall perspective and a poor working relationship of individual regulatory elements, then their entire effort toward controlling the pattern and intensity of land use around Bear Lake is open to legal questioning.

Lakeshore Controls and the Judicial Function

The legality of land use controls

The fourteenth amendment of the United States Constitution requires that no state shall "deprive any person of . . . property, without due process of law . . . ." (U. S. Constitution Amendment XIV). If shoreland regulations, then, so limit the use of private land that
"it cannot practically be utilized for any reasonable purpose or when the only permitted uses are those to which the property is not adapted or which are economically infeasible" (Morris County Land Improvement Co., vs. Township of Parsippany-Troy Hills, 1963), these regulations unconstitutionally confiscate private property.

The confiscating "private property issue" inevitably arises when regulations severly limit land uses in an attempt to maintain the natural environment (Ryckman, 1966).

This whole regulatory issue becomes particularly critical since lakeshore prices for raw land around Bear Lake can range to more than 75 dollars a "front-foot" (Brown, 1972). Land use controls directly or indirectly preventing building could diminish the value of the land to the extent that permitted uses are economically infeasible, whereupon the regulation could be judged unconstitutional. In addition, even if the site is not suitable for development in its natural state, regulations which prevent improvement and development are possibly unconstitutional (Kennedy, 1972).

Unique laws of Wisconsin and Minnesota that authorize the regulation of limited geographical areas with the power of state level intervention if the counties fail to act pose many legal and administrative question. Two salient issues are those of private property rights and the extent to which the interests of the state as a whole should be brought to bear on local desires reflected in a local plan or ordinance regulating land development.
Bear Lake and the emerging regulatory trend

A trend is emerging. Total localism in the regulation of land development is becoming anachronistic (American Law Institute, 1971), and the rights of private property owners are being controlled. Hawaii's State Land Use Commission, Vermont's Nine District Commissions, Massachusetts' Housing Appeals Committee, and Maine's Environmental Improvement Commission with their attendant powers and decisions are all examples (American Law Institute, 1971). Minnesota and Wisconsin's shoreland management acts fall in this same general category of land use regulations that begin to restrict private property rights by recourse to the State's authority to safeguard public values.

This emerging trend does not apply to Bear Lake. The conservative attitude of Utah toward land use controls probably makes any comprehensive state control of Bear Lake at least ten years away (Thomas, 1972). This trend toward state land-use regulation and the narrowing of private property rights does hold some implications for Bear Lake. Both Minnesota and Wisconsin have established a rational base for their lakeshore controls. Wisconsin, for a fact, has met with a minimum of legal squabbles (Yanggen and Kusler, 1968). Should the Commissioners of Rich County be so inclined, they could well exercise the land use control power granted to them by State enabling legislation to adopt and enforce similarly judicious lakeshore ordinances. A rational base including criteria similar to that employed by Minnesota, possibly presented in graphic form, could make many of their decisions much more acceptable to those involved.
Summary

The Rich County Combined Commission is going to rely upon the zoning and subdivision ordinances prepared under their 701 Plan to promote a balance between resource utilization and resource protection around Bear Lake. There is the distinct danger of Bear Lake being saddled with land use controls that fail to regulate those problems unique to lakeshore development if a model ordinance, not reflecting the area's unique landscape, is adopted.

No single solution will solve all the problems associated with shoreland development. Selected criteria have been presented that will be helpful in judging the type of considerations that should be made in attempting to establish a set of land use controls for Bear Lake.

Even if Bair's outline is followed to the letter in preparing the zoning and subdivision ordinances that would apply to Bear Lake, the Plan has not, to date, presented the data on the crowding potential and physical characteristics of the Lake needed for writing specific lakeshore controls.

Should the Plan, as it applies to Bear Lake, become an overlay of a model development code that deals specifically with the water surface control, shore controls, building regulations, zoning and planning headings used in Vermont's suggested code, there would still remain the important legal question of arbitrary and discriminatory action for making one district, or land use, more restrictive than another without a sound basis.
CHAPTER VI
CONCLUSION

Summary

Even a cursory analysis of Bear Lake reveals that it is a unique and practically irreplaceable resource. It is a resource which is important from an environmental and ecological standpoint, as well as being aesthetically pleasing and economically valuable.

The shoreline is a limited resource. How Rich County should respond to the interrelated but often conflicting pressures for a multiplicity of lakeshore uses is a complex problem. An optimum response would seem to be one in which the County would seek to achieve a balanced use of the Lake's resource, that is one which adequately protects the public interest without unduly restricting private development.

Rich County has attempted to adopt a comprehensive long range planning and management policy for Bear Lake. Unfortunately the Comprehensive Rich County 701 Plan as it applies to Bear Lake has not translated a clearly manifested concern for the future of the Lake into a logical well-researched course of action. Specific conclusions on the adequacy of the 701 Plan are:

1. The latitude granted to the Rich County 701 Plan, by the HUD Regional Office and the Utah State Planning Coordinator's Office has failed to reflect the site's unique natural characteristics. The Plan has not adequately reinforced the initial confidence expressed in the
701 Program by Rich County with a well-defined objective planning approach to controlling the pattern and intensity of land use around Bear Lake.

2. The Plan does not reflect an interdisciplinary approach to the complex lakeshore problems of Bear Lake. Assistance from other professionals, government agencies, and the utilization of existing data would begin to alleviate the limited perspective of the Plan. The result of a non-interdisciplinary approach was unnecessary time delays and a Preliminary Master Plan that is clearly not up to the caliber permitted by the 701 Program.

3. The Plan has failed to incorporate citizens' goals concerning highway locations, airport facilities, and agricultural production. Data relating to the potential economic value of second home development around Bear Lake was not brought to the Commissioners' attention. The absence of available natural resource data on climate, vegetation, wildlife, visual, and topography variables severely limits the comprehensive intent of the Plan. No mention was made of the varying degree of accuracy of the information actually used in the Plan. Also lacking was the identification of areas requiring further study.

4. An examination of criteria developed by Minnesota, Wisconsin, Vermont, and New Hampshire to aid and control lakeshore development begins to define the serious shortcoming in the Rich County 701 Plan. There is a possibility that a large portion of the land use zones that will be designated in the Final Plan and the land use controls
that will be adopted in permanent zoning and subdivision ordinances will be arbitrary and uneffective.

5. The Rich County Combined Commissioners did not have the traditional reluctance of rural decision-makers to adopt accepted planning approaches. Their growing concern for development pressures on Bear Lake resulted in a 701 Contract for Planning Assistance for Rich County. The 701 Program provided Rich County with a potentially effective plan. The Plan developed, however, fails to respect the unique aspects of Bear Lake. As a result, the Rich County Combined Commission has now assumed a negative impression toward the usefulness of professional planners.

**Recommendations**

1. In future projects where a planning consultant is retained, it is recommended that Rich County thoroughly investigate the professional ability, reputation, and job record of the potential consultant.

   The Department of Landscape Architecture and Environmental Planning at Utah State University, the State Planning Coordinator's Office, and the Department of Community Development at the University of Utah are possible sources of guidance.

2. In the "stop-gap planning approach" that will still have to be assumed by Rich County, the merits of individual major land use decisions will have to be comprehensively evaluated. In order to do this, the new Tri-County Planner should be advised to start gathering the relevant information that is lacking in the Rich
County 701 Plan. Chapter IV suggests some individual sources for such information. The local, county, state, and Federal agencies that the Rich County Plan was supposed to be coordinated with are other avenues of help. These agencies are listed in Chapter II.

The writer also strongly recommends that Dr. William Helm of the School of Natural Resources at Utah State University be contacted. Dr. Helm has expressed a definite interest in getting together an interdisciplinary team to help study the unwieldy question of sewer and solid waste disposal around Bear Lake. It is his feeling that much of this work could be funded privately with no financial burden of Rich County.

3. When the final zoning and subdivision ordinances are presented the ordinances should be evaluated in light of the lakeshore criteria developed in Chapter V. Revisions and additions should be required in obvious areas of weakness. In addition to the criteria developed in Chapter V, the Lake George Park Commission in New York has developed two new zoning methods: Petition and deed restriction. These alternatives should be studies by Rich County. The Lake George Park Commission has found both approaches to be ideally suited to lakeshore conditions. The procedure for petition zoning is spelled out in Print 4184 of the Senate of the State of New York, March 5, 1964. Details on zoning by deed restriction can be obtained by writing the New York State Water Resources Commission in Albany, New York.
To determine where new development pressures around Bear Lake will next occur, the Tri-County Planner might refer to *Public Policy and Shoreline Landowner Behavior* by Raymond J. Burby and Shirly F. Weiss. The results of their research strongly suggest that a single landowner model can be developed to predict landowners who are most likely to hold, sell lots, subdivide, or sell to developers.
LITERATURE CITED


Anderson, Bernice. 1972. Department of Botany, Utah State University Personal interview, March 27.


CHAPTER II

THE RICH COUNTY 7O1 PLAN IN PERSPECTIVE

Evolution of 701 Program Nationally

Early history

Until the early nineteen fifties, the Federal Government was not officially involved in planning at the local level. In a re-examination of Federal programs in 1953, the President's Advisory Committee on Government Housing Policies and Programs found that no effective provision had been made to insure lasting results for the slum clearance and urban renewal efforts initiated under the Housing Act of 1940.

The Committee also realized that financial assistance for planning would be an incentive for metropolitan planning and a supplement to the resources of small communities. The Committee recommended that "... grants be made on a matching basis to the State or metropolitan area governmental planning agencies to cover the cost of technical assistance for small cities and towns and for metropolitan regions within the states." (President's Advisory Committee on Government Housing Policies and Programs, 1953, p. 7).

Housing Act of 1954

The Housing Act of 1954 evolved from the recommendations of the President's Advisory Committee on Government Housing Policies and Programs. The "workable program," as requested by the Committee and implemented under the Act, required that each participating locality must develop comprehensive planning for public works, thoroughfares,


Hagman, Donald G. 1971. Address to the Land Use Planning Colloquium, Utah State University, Logan, Utah. December 17.


Merrill, Richard. 1971. Utah Director of Community Development. Salt Lake City, Utah. Personal interview, December 22.


Moore, R. R. 1972. Department of Forestry, Utah State University. Personal interview, March 27.


President's Advisory Committee on Government Housing Policies and Programs. 1953. Washington, D. C., December.


Richardson, E. A. 1972. Department of Soils and Biometeorology, Utah State University. Personal interview, March 27.


Sigler, William F. 1962. Twenty-Sixth Faculty Honor Lecture, Utah State University.


Thomas, Preston. 1972. Department of Political Science, Utah State University. Personal interview, March 27.


U. S. Department of Housing and Urban Development, Handbook II: Comprehensive Planning Assistance Guidelines Leading to a Grant (CPM 6042.1), Washington, D. C.


APPENDIXES
Appendix A

A General Approach to Preparing Land Use Controls

I. MATERIALS TO BE ASSEMBLED

A. State, general, and special enabling legislation of local application (including charter provisions), to determine what the local jurisdiction is empowered to do, how, and for what purposes. Specifically:

1. General enabling legislation on planning, zoning, subdivision regulation, official maps, urban renewal, and so on.
2. Provisions concerning: building codes (including plumbing, heating, gas, electrical, and so on); housing and general occupancy codes; fire codes; health codes and the like.
3. Provisions concerning local regulation of particular types of development or land use--gas stations, outdoor advertising, junk yards, inoperative automobiles, swimming pools, mining (including sand and gravel pits and quarries), well drilling, discharge into public waters, and so on.
4. Provisions concerning control and abatement of nuisances, and other general controls likely to be useful as supplements to specific regulations.

B. State regulations, to determine what controls state agencies exercise as related to existing or potential local controls, what agencies are involved, the purposes of state regulation, standards established, and inspection and enforcement procedures. Examples of such regulations are those affecting hotels and restaurants, mobile home parks, campgrounds, apartments, schools, fire safety, mining, junk yards, outdoor advertising adjacent to certain highways, limited access provisions, discharge into public water supplies, sewerage treatment and public water supplies, outdoor theaters, and the like. Agencies involved will usually include state education departments, state health agencies, state highway departments, and the state fire marshal's office, among others.

C. Federal regulations, to the same effect as above (e.g., Federal Aviation Agency, Federal Communications Commission, Corps of Engineers).

D. Authority and special district regulations, to similar effect (e.g., drainage districts, sanitation districts, school districts).
E. Local codes, ordinances, and regulations. In many jurisdictions, much more than a casual check of more obvious titles will be desirable, and it will be necessary to check carefully for amendments and additions not yet included in printed codes. As a specific example, material relating to the regulatory system discussed here was found under the following heads in one city code (with more obvious references eliminated): advertising and signs; animals and fowl; dredging or landfilling, docks, landings, and so on; excavations and soil removal; accumulation of garbage, refuse, waste, and weeds on vacant lots; licensing; streets; drainage easements--alteration or obstruction; water impoundment; obstruction of water-courses; nuisances generally; service stations; drive-in theaters; trailers and trailer camps.

F. Codes, ordinances, and regulations from neighboring jurisdictions, to be used in an effort to develop uniform requirements or procedures where there is no substantial reason for variation.

G. Models, guides, and standards to be used for comparison with local regulations and as a guide to possible refinements or improvements.

II. ANALYSIS

A. State, general, and special enabling legislation of local application (including charter provisions). Prepare detailed breakdowns on purposes, powers, and procedures, grouping material under each of these heads, but retaining identification of source to provide a cumulative and comparative listing of purposes and similar listings of powers and procedures.

B. Federal, state, and authority or special district regulations. Analyze to determine where there are substantial existing or potential overlaps in fields of control. In such areas, check adequacy of standards and administration. Appraise possibilities for:

1. Relinquishing local controls where "outside" standards and administration are adequate.
2. Improving nonlocal standards or administration where either or both are inadequate, to protect local interests but relieve pressures on local administrators.
3. Coordinating local with nonlocal control. This may involve changes in local standards to come up to nonlocal requirements (which usually override in any case) or arrangements concerning inspection responsibility or scheduling, exchange of information on violations, and the like.

C. Local codes, ordinances, and regulations. Prepare detailed, cumulative, and comparative analyses by purposes, standards and other substantive requirements, and procedures. Relate substantive requirements to purposes, structuring analysis to group-
related requirements from different codes. For example, zoning building, housing, and fire codes will all have controls affecting building spacing, applying generally or to particular uses or types of construction.

Check substantive requirements for internal consistency and relation to public purpose. Compare with models and guides to determine whether the most effective techniques are being used. Where conflicting standards relate to same purpose, select standard to apply generally. Where standards vary for sound reasons, provide for cross-referencing. Check also against requirements in neighboring jurisdictions to avoid unnecessary trivial variations (and perhaps to prepare for interjurisdictional adjustments).

Analyze and compare procedures on preparation of original codes, ordinances or regulations, and amendments and on referrals, notice and hearing, and adoption. It may be very helpful at this point to appraise arrangements for keeping official documents updated and available to the public and to officials in current form.

Analyze and compare routine administration—applications, collection of fees, processing, inspections, actions to discover and abate violations, and so on. Analyze forms for adequacy and efficiency.

Analyze and compare appellate functions and procedures—number of appellate boards, functions, adequacy of limitations or guidance in ordinances or codes (and/or in enabling legislation), forms of applications or appeals, notice and hearing, findings required before making determinations, nature and effect of determinations, appeals from boards.

(In the analyses and comparisons indicated under C, there should be careful checking throughout as to conformity with enabling authority. The first purpose of this check is to ensure that the regulations or procedures are in accord with existing enabling legislations. There is a secondary purpose as well—to prepare for recommendations regarding changes in enabling legislation where there is justification for change.)

III. REORGANIZATION AND IMPROVEMENT OF SUBSTANTIVE PROVISIONS (STANDARDS)

A. Eliminate from local controls provisions found to be exercised adequately by "higher" governments. For public convenience, local regulations might well include cross-reference to such other regulations, but unless local standards are set higher, on nonlocal administration is defective, there is no point in duplicating jurisdiction.
B. Determine where controls to meet specific purposes belong in the regulatory system. Conventional divisions of subject matter will be continued—zoning, subdivision regulation, building codes, housing (or occupancy) codes, environmental health codes, fire codes, and so one, although there may be justification in some instances for combinations of previously separate codes. But within this framework, there will be prime and sometimes secondary locations where regulations relating to a specific public purpose should be concentrated. Such concentration should help to eliminate the conflicts, overlaps, and gaps which occur if provisions to the same general effect are scattered at random through the regulations.

C. Reassemble standards and other substantive provisions as indicated above, using "override" standards where they will meet all public purposes, and providing clear cross-references where it is necessary to have varying requirements in different sections of the system.

(Reorganization and improvement of standards and other substantive requirements can usually be made without adjustment in enabling authority. Major procedural changes, particularly on amendments, notice, and hearing and appeals, will probably require changes in enabling legislation.)

IV. REORGANIZATION AND IMPROVEMENT OF PROCEDURAL PROVISIONS

A. Preparation of original codes, ordinances, or regulations and amendments, and on referrals, notice and hearing, and adoption. Consolidate requirements and make uniform where appropriate.

B. Routine administration. Consolidate requirements, make uniform where appropriate, and establish clear lines of administrative responsibility.

C. Appeals. Consolidate requirements, provide introductory section applying to all appeals boards indicating general rules applying—filing of appeals or applications, notice and hearings, findings required, limitations on powers, nature and effect of determinations. In addition, under sections on individual boards or in portions of the general regulations making reference to appeals or applications to such boards, spell out limitations and requirements in particular classes of cases.

V. DETERMINATION OF NEED FOR AMENDMENTS IN ENABLING LEGISLATION (CHARTERS)

Whether amendments will be needed, and what kind, will depend on what turns up as a result of the overview outlines above. Sometimes it will be possible to work effectively within the established limits, particularly if they are fully understood and liberally interpreted.
Usually, some amendments in state legislation or charters will be found desirable. Such changes will be of one of the types indicated below.

A. Changes in organization of statutes. Most states now have systematized and coordinated legislation on planning, zoning, subdivision control, official maps, and in some cases urban renewal. There remains a need to bring together into the same general area within the statutes a variety of other enabling provisions now widely scattered. At present, few local planners, legal staff members, or other local officials are aware of all the regulatory tools available.

B. Changes in powers. Powers delegated to local governments vary considerably from state to state, but in most states specific or implied authorization somewhere in the statutes or the charter gives the necessary grant of power to do almost anything which reasonably needs doing—given a liberal and alert local legal department.

C. Changes in procedures. If there is systematic review of the enabling legislation for the wide range of use, development, construction, and occupancy codes discussed here, it will usually become apparent that there is need for more nearly uniform requirements on procedures for preparation or original controls and amendments, referrals, notice and hearing, administration, and particularly appeals. And there may be need for statutory authority to adopt standard codes by reference (including future revisions). Otherwise, localities may be left enforcing obsolete standards or revised provisions having no legal support until the governing body goes through the formality of adopting the revisions. (Bair, 1970, p. 234-238)
APPENDIX B
Appendix B

A Model Lake Shore Development Code

WATER SURFACE CONTROLS

Safety and Security Patrol of Lake and Shore - Experiences on such a large and intensively used lake as Lake George, N.Y., indicate that a safety patrol can enforce safety measures and, at the same time, enforce lake zoning and sanitation laws.

Regulate Water Level - With indiscriminate changes in the water level, mudflats appear, docks are left high and dry, and the usefulness of the lake is greatly diminished.

Water Use Zoning - Certain lake areas often used simultaneously for incompatible purposes, need zoning by area or time.

Regulate Boat and Motor Size - Erosion on clay banks is very great if high-powered boats are permitted to stir up waves. The motor size permitted on a lake should be adjusted to the size of the lake and the erodibility of the shores.

Provide Navigational Aids - All large, heavily utilized bodies of water should have minimum navigational aids for safety purposes.

Weed Control - Even with elimination of pollution, some weed control will be needed under special conditions.

Regulate Ice Fishing - Ice fishermen don't want regulations, but minimum controls are needed to prevent or reduce accidents and drownings and to prevent lake pollution.

Provide for Canoe Trails to Pass Through the Lake - To encourage canoeing, consider canoe access and camping areas accessible only from the water.

Fish Population and Species Control - Fishing quality can be greatly improved with attention to fish population and species regulations.

SHORE CONTROLS

Provide Adequate Public and Owner Access - Adequate public access to public waters requires at least one multiple-purpose access area in each town or one every five miles.
Regulate Dredging and Filling - Dredging and filling can pollute the water just as much as any other method and must be rigorously controlled by a state agency.

Reduce Numbers of Docks and Floats - Make every effort to reduce proliferation of docks and floats by (1) providing public facilities, and (2) encouraging cottage owners to cooperate in developing joint access facilities.

Preserve Native Vegetation and New Plantings - The aesthetic qualities, as well as the usefulness of lakeshores, can be improved and possibilities of pollution by wave wash can be reduced by a concerted effort to preserve and replace native vegetation along the bank.

Prevent Ice Damage - Minimize ice damage by reducing the facilities located in ice-damaged areas and removing all facilities possible during the winter.

Provide Foot Trails Along Shore - With full public access to the shore, foot trails can be developed to add a completely new and highly attractive dimension to lakeshore enjoyment.

BUILDING REGULATIONS

Encourage Cluster Placement of Buildings - Cluster developments are more economical to the builder, to the town, and are equally attractive to the buyer.

Require Approved Sewage Disposal System - Rigorous enforcement of this sewage requirement should be a state responsibility. Towns lack the trained personnel.

Locate Utility Lines Back from the Shore - Laying utility lines underground or out of sight of the lake and shore improves aesthetic quality.

Minimum Setback Regulations - Adequate setback for all buildings effectively reduces pollution and lakeshore overuse.

Fire Protection System - An adequate fire protection system reduces insurance costs as well as loss of property.

ZONING

Separation of Residential and Commercial Areas - Commercial land uses that do not require lakeshore front should be located elsewhere, leaving the lakeshore for commercial uses that require it or for cottages.
Prohibition of Unaesthetic Land Uses - Dumps, junk, and all other unaesthetic land uses should be excluded from the lakeshore as well as water-polluting land uses.

Control of Signs - Signs can be controlled by local ordinances if the people demand it. The Lake George Park Commission provides an example of good method of sign control.

Control of Mobile Home Location - Low-income people should not be discriminated against by exclusion of mobile homes. But mobile homes may be limited to parks where regulations provide for adequate spacing, sewage disposal, and landscaping and thus keep them from detracting from the character of the area.

Special Lakeshore Zone - Lakeshore land uses are so different and distinct that a special lakeshore zone should govern them. This zone should provide for cluster developments, identify and properly zone all flood plains for uses compatible with flooding, and protect public access.

PLANNING

Road Layout Design for Area - Lakeshores are too valuable to use extensively for roads. A green belt of natural vegetation should encircle each lake. Roads should provide access, physical and visual, yet take up as little lakeshore as possible.

Participation in Regional Planning - Planning is difficult, for it applies to all land, considers all uses, and should involve representatives of all interest groups. Only regional planning can be truly effective on an intertown lake or watershed. (Sargent and Bingham, 1969, p. 6-7.)
APPENDIX C
Appendix C
Wisconsin's Shoreland Management Program

Chapter NR 115

NR 115.01 Introduction. (1) The water resources act (chapter 614, laws of 1965) requires counties to enact regulations for the protection of all shorelands in unincorporated areas by January 1, 1968. Shorelands as defined by the law are lands within 1,000 feet of a navigable lake, pond or flowage and lands within 300 feet of a river or navigable stream or to the landward side of the floodplain, whichever distance is greater.

(2) The statute defines the purposes of regulations enacted for shoreland protection: "to further the maintenance of safe and healthful conditions; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses and reserve shore cover and natural beauty."

NR 115.02 Nature of the program. (1) The water resources act creates section 59.971, Wis. Stats., which requires the zoning of shorelands in the unincorporated areas of each county. Such zoning shall not require the approval of the town boards. To assure that such zoning will be accomplished, section 59.971 (6), Wis. Stats., states that if any county does not adopt an ordinance by January 1, 1968, or if the department of natural resources, after notice and hearing, determines that a county had adopted an ordinance which fails to meet reasonable minimum standards in accomplishing the shoreland protection objectives, the department shall adopt such an ordinance.

(2) To comply with the water resources act, it is necessary for a county to enact shoreland regulations, including zoning provisions, land division controls, sanitary regulations and administrative provisions ensuring enforcement of the regulations.

(3) It is the policy of the department, in the discharge of its responsibility under section 144.26, to require adherence to certain specific standards and criteria. The standards and criteria are intended to define the objectives of the regulations.

NR 115.02 Shoreland regulation standards and criteria. (1) ESTABLISHMENT OF APPROPRIATE ZONING DISTRICTS. Shoreland area development can usually be controlled by regulations appropriate to wetlands (conservancy district), recreation-residential districts and general purpose districts. Where detailed land use planning has been accomplished, other types of districts may also be desirable.

(2) ESTABLISHMENT OF LAND USE ZONING REGULATIONS. The zoning provisions adopted must provide sufficient control of the use of shorelands to afford the protection of water quality as specified in Wis. Adm. Code chapters RD 2 and 3. The provisions shall include the following:
(a) Minimum lot sizes. All future lots in the shoreland area shall afford protection against danger to health and hazard of pollution of the adjacent body of water.

1. Lots served by public sewer shall have a minimum width of 65 feet and a minimum area of 10,000 square feet.

2. Lots not served by public sewer shall have a minimum average width of 100 feet and a minimum area of 20,000 square feet.

(b) Building setbacks. The permitted location of buildings and structures shall conform to health requirements, preserve natural beauty and reduce flood hazards.

1. Unless an existing development pattern exists, a setback of 75 feet from the normal high water line shall be required.

2. No building shall be erected in the floodway of a stream (see chapter NR 116, definitions).

3. Boathouses or similar structures which require a waterfront location shall not be used for habitation nor extend toward the water beyond the ordinary high waterline.

4. Buildings and structures shall be subject to any applicable floodplain zoning regulations.

(c) Trees and shrubbery. The cutting of trees and shrubbery shall be regulated to protect scenic beauty, control erosion and reduce the flow of effluents and nutrients from the shoreland. In the strip 35 feet inland from the normal high waterline, no more than 30 feet in any 100 feet shall be clear cut. In other areas, trees and shrub cutting shall be governed by consideration of the effect on water quality and should be in accord with accepted management practices.

(d) Filling, grading, lagooning, dredging. Filling, grading, lagooning and dredging may be permitted only in accord with state law and where protection against erosion, sedimentation and impairment of fish and aquatic life has been assured.

(3) ESTABLISHMENT OF SANITARY REGULATIONS. The protection of health and the preservation and enhancement of water quality require sanitary regulations to be adopted by the county. (a) Where public water supply systems are not available, private well construction shall conform to Wis. Adm. Code chapter RD 12.

(b) Where a public waste collection and treatment system is not available, design and construction of private sewage disposal systems shall fully comply with Wis. Admin. Code section H62.20.

(4) ADOPTION OF ADMINISTRATIVE AND ENFORCEMENT PROVISIONS. Each ordinance required by these regulations shall provide for:

(a) The appointment of an administrator and such additional staff as the work load may require.

(b) A planning agency (planning and zoning committee) and a board of adjustment as required by law.

(c) A system of permits for all new construction, reconstruction, structural alteration or moving of buildings and structures, including sanitary waste disposal and water supply facilities. A copy of all applications shall be filed in the office of the county administrator.

(d) Regular inspection of permitted work in progress to insure conformity of the finished structures with the terms of the ordinance.
(e) A variance procedure relating to the use, change of use or alteration of nonconforming lands and structures, and a special exception procedure for uses presenting special problems of pollution or flood hazard. The county shall keep a complete record of all proceedings before the board of adjustment and planning agency.

(f) Timely notice to the floodplain-shoreland management section of the department of natural resources of hearings on proposed variances, special exceptions and amendments and delivery to that section of copies of decisions on such variances, special exceptions and such amendments, when adopted.

(g) Mapped zoning districts and the recording, on an official copy of such map, of all district boundary changes.

(h) The prosecution of all violations of shoreland zoning ordinances.

(i) Establishment of land suitability review. The county shall review all land divisions which create 3 or more parcels or building sites of 5 acres each or less within a 5-year period. In such review the following factors should be considered:

(a) Hazards to the health, safety or welfare of future residents.

(b) Proper relationship to adjoining areas.

(c) Public access to navigable waters, as required by law.

(d) Adequate storm drainage facilities.

(e) Conformity to state law and administrative code provisions.

NR 115.04 Role of the Department of Natural Resources. (1) Role. The department of natural resources is directed by the legislature to assist the counties in carrying out their responsibilities under the law and to review and evaluate the administration of the regulations. If necessary, the department may recommend to the natural resources board the adoption of an ordinance for a county, if the county failed to meet these standards and criteria.

(2) Compliance determined by evaluating county regulations with section NR 115.03. (a) Compliance with the requirements of section 59.971 will be determined by comparing the county shoreland regulations with state minimum standards for shoreland protection as contained in section NR 115.03. Counties that have enacted regulations that meet the minimum standards for shoreland protection will be considered as complying with section 59.971, Wis.Stats.

(b) Compliance status shall also be maintained by the county during subsequent reevaluation of the regulations to ascertain their effectiveness in maintaining the quality of Wisconsin water. A county shall keep its regulations current, effective and workable to retain its status of compliance. Failure to do so shall be deemed noncompliance.

(c) Compliance with chapter NR 115 shall not affect a county's responsibility to comply with chapter NR 116, floodplain management standards.

(d) The department shall issue a certificate of compliance when a county has, in the opinion of the department, complied with section 59.971, Wis. Stats.
(3) NONCOMPLIANCE. (a) Counties that have regulations that do not meet the minimum rules as contained in Section NR 115.03 shall be considered as not complying with the requirements of the water resources act pertaining to shoreland regulations. For these counties to achieve compliance status, they shall modify their regulations to meet the minimum standards within a time limit established by the department.

(b) Counties that have not drafted shoreland regulations shall be deemed noncomplying counties. They shall state to the department of natural resources their reasons, if any, for failure to comply with the water resources act. The department shall then require the county:
1. To proceed with regulation formation within a given time period, or;
2. a. To have the staff of the department of natural resources draft the regulations, or;
b. Contract with a consultant to draft the regulations. All costs for such actions by the department of natural resources shall be borne by the noncomplying county.

NR 115.05 Assistance to counties. To the full extent of its resources, the department of natural resources will provide advice and assistance to the counties, seeking the highest practicable degree of uniformity consistent with the objectives of the shoreland regulation provisions of the water resources act.
APPENDIX D

1. Construct a linear model to predict the breeding site of birds.
2. Provide a list of recommended practices to maintain the breeding site.
3. Analyze the relationship between bird species and the number of breeding sites per year.
4. Evaluate the impact of human activities on bird breeding sites.

APPENDIX D
Appendix D

Possible follow-up studies for students in the Department of
Landscape Architecture and Environmental Planning at Utah State
University:

1. Make visual studies of the Bear Lake Basin.

2. Write performance standards and aesthetic controls for development
   around Bear Lake.

3. Construct a landowner model to predict those lots most likely to
   be built upon.

4. Outline steps to be taken to maintain sufficient and adequate
   public access to the lakeshore.

5. Designate activity zones to regulate on-water recreation.
VITA

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