SCENIC RIVERS STUDY
Report No. 11
Research Partial Completion Report
Project C-3342-IDA
July 1971 - January 1975

ATTITUDES OF IDAHO RESIDENTS TOWARD FREE FLOWING RIVERS AS A WATER USE IN IDAHO

by

John E. Carlson
Department of Sociology/Anthropology
Department of Agricultural Economics
University of Idaho

Submitted to

Office of Water Research and Technology
United States Department of the Interior
Washington, D.C. 20240

January 1975

This project was supported primarily with funds provided by the Office of Water Research and Technology as authorized under the Water Resources Research Act of 1964, as amended.

Idaho Water Resources Research Institute
University of Idaho
Moscow, Idaho 83843

John S. Gladwell, Director

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter I

INTRODUCTION

Potential land and water uses in the State of Idaho are varied and many. Idaho has, at present, relatively undeveloped natural resources. As a result, a continual controversy is carried on as to the proper use of these resources. These arguments tend to focus on three central issues of land use. These are ecological considerations, economic potential, and social or cultural aspects.[1]

The ecological concerns center on the ability of the physical environment to sustain a given type of use over a long period of time. The optimum ecological situation is one where the use of the land is in equilibrium with the physical conditions of the environment. This condition allows indefinite use of the resource without depletion of the resource. Thus, ecologically oriented persons argue for resource uses that are in harmony with the environment.

On the other hand, economic considerations always enter the land use picture. People who utilize the resources continually argue that the resource should provide a reasonable economic return. Quite often the economic potential and the ecological optimal uses of resources are not harmonious. The time factor is an additional element. A process may not be harmful for a short period but may be harmful over a long time period. With increasing

---

[1]Several writers have discussed these issues in their theories of man-land relationships, most notably the work of Firey (1961). A recent report by Harris (1974) uses a similar classification.

emphasis on accumulation of economic resources the development of natural resources has often totally overshadowed any concern for the ecological limitations of the resource.

In addition to the ecological and economic factors, the social or cultural values of the people occupying a given resource play an important part in its use. For example, Indian people felt they were in unity with their environment whereas there seems to be an attitude among many Americans that a nation's resources are to be developed and utilized to their fullest extent possible. Thus, in some cultures the uses of resources are relatively consistent with the ecologically optimal uses of the environment while in others this is not true.

The importance of the cultural aspect of natural resources has been aptly expressed by Burch (1971:9) when he states ". . . the origins of natural resources are to be found in society, not in the earth". Based on these cultural meanings man places economic values on particular resource uses. These may or may not be consistent with ecological factors.

In considering the three issues of ecology, economics and culture as related to land use the ideal would be a situation where all were in harmony. That is, where the culturally approved and most economically fruitful activities were also the ecologically optimal activities. This interrelationship is presented in Figure I.1.

The shaded portion of Figure I.1 presents the optimum resource use. The major problem in resource planning is that these three

issues are not usually compatible. When one is emphasized, others are likely to be ignored or be detrimental to the resource.

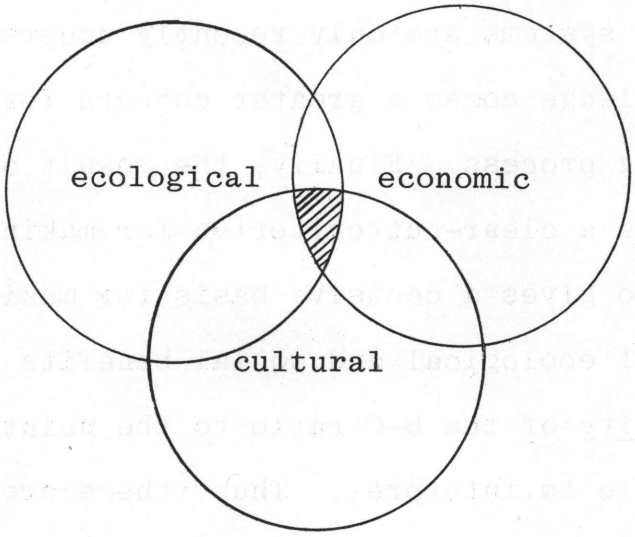


Figure I.1.
Interrelationships between cultural, economic, and ecological aspects of natural resources

These three aspects of natural resource use consistently emerge when land use decisions are being made. Whether it be a question of using natural resources for agriculture or a new shopping center, for timber production or wilderness, or for recreation or hydropower, the final decision will have an effect on the ecological, economic, and cultural aspects of the resource. There is little doubt that historically the economics of the issue have been the major criteria in natural resource decision making. Only major ecological and social changes were considered. There seems to be several reasons for the over emphasis on economic considerations. First, progress and development are important values among American people. The notion of conquering the wilderness is presented

by Nash (1967) as a strong value among early Americans. In addition, knowledge about the ecological and social impacts of various land uses has been slow in developing. The complexities of the biological and social systems are only recently understood. With this increase in knowledge comes a greater concern for these issues in the decision-making process. Finally, the result of an economic analysis presents a clear-cut criterion for making a decision. The benefit-cost ratio gives a decisive basis for making a decision. The addition of ecological and social benefits and costs increases the complexity of the B-C ratio to the point where it becomes almost impossible to interpret. Thus, there are practical reasons for minimizing these aspects of natural resource use.

Nevertheless, these difficulties must be dealt with. Recent guidelines (such as the Water Resources Council's Principles and Standards) require Federal and State agencies to incorporate all benefits and costs into the resource decision-making process. Planners must be able to make a final decision based on a combination of economic, ecological and social considerations. Criteria must be established for measuring the benefits and costs in each of these three aspects of resource use. This study will further the effort in the social area by analyzing the attitudes of Idaho residents to the use of rivers in Idaho. The problem of use compatibility is quite evident when looking at the various alternatives to using Idaho's rivers.

Most rivers in Idaho have a number of potential alternative uses. They may be dammed or maintained in a free flowing condition. They might be commercially developed for recreation or maintained

in a primitive condition or perhaps a combination of various alternatives. Each choice results in a set of benefits and costs for each aspect of resource use--economic, social and ecological. This study will provide more data on the attitudes of the public regarding water use priorities among Idaho residents.

Chapter II

OBJECTIVES AND METHODOLOGY

Objectives

Several issues form the problem under study here. What are the differential emphases on these three aspects of resource use by the people of Idaho? What are the socio-economic characteristics and behavioral patterns of the holders of various orientations toward wild rivers in Idaho? Do people have different attitudes toward wild rivers depending on the place of natural resources in their overall priority structure? These are a few of the questions this study has been designed to answer. Specifically, the study will focus on the following objectives:

1. Determine the relative position of natural resources among other areas of concern of the people of Idaho.
2. Determine the relative importance of various land and water uses to the people of Idaho.
3. Among these land and water uses determine the relative importance of wild rivers to the people of Idaho.
4. Analyze objectives 1-3 in light of the various social, economic, and geographic characteristics of Idaho residents.

Methodology

This study involved an attitude survey of a random sample of Idaho residents. Several aspects of the methodology will be discussed in this section beginning with the development of the questionnaire; followed by a discussion of the sampling procedure and

the administration of the questionnaire. Finally, the analysis of the data will be discussed.

Questionnaire Development

The questionnaire was originally developed to study attitudes toward wild and scenic rivers and a great deal of input from land managers was received. Further considerations of the objectives of the study suggested a broadening of the survey to encompass the area of land use planning in general. It was felt that such an orientation would be of more value to the various resource decision-makers concerned with land use in Idaho. The development of the questionnaire has taken over a year with suggestions and inputs from many persons. It has been pretested twice by members of a graduate seminar in interviewing techniques. Several previously used scales are incorporated into the questionnaire along with some newly developed scales. Thus, it is felt that the questionnaire provides a valid measurement of the objectives of the study. (See Appendix).

Sampling Procedure and Questionnaire Administration

The sampling procedure and questionnaire administration was done by the Idaho Survey Research Center. A random sample of the population was drawn utilizing random selection of voting precincts and random selection of clusters within each precinct. Fifteen samples were systematically drawn from each precinct. A total of 935 people make up the sample for this study.

The questionnaires were administered in the spring of 1974 by interviewers hired and trained by the Survey Research Center. The

interviewers administered the questionnaire but allowed respondents to fill it out themselves. The major purpose of the interviewer was to answer questions, clarify instructions, and insure a completed return. As a result a high completion rate (91%) was obtained.

Sample Characteristics

The sample for this study was selected utilizing sampling procedures designed to produce a sample representative of the population. To check representativeness the sample will be compared with the 1970 census data on several selected characteristics. Table II.1 indicates the age range of heads of households in Idaho. As can be seen, our sample compares closely with the census information. Our sample contains a slightly higher proportion of younger persons than the census result.

Table II.1. Comparisons of the sample with census information on age of head of household.

Age of Head of Household	Sample	State of Idaho
14-24	8.4	8.2
25-34	21.7	18.2
35-44	19.5	17.5
45-64	33.5	36.2
65-	14.9	20.0

Table II.2. Comparison of sample with 1970 census information on occupational group by sex.

Occupational Group	Male		Female	
	Census	Sample	Census	Sample
Professional, Technical and Kindred	11.6	13.9	15.1	14.1
Managers, Proprietors (except farm)	11.9	11.4	4.6	6.0
Sales Workers	5.7	4.7	7.3	6.7
Clerical and Kindred	4.2	3.1	28.2	30.9
Craftsmen, Foreman and Kindred	17.6	15.9	1.5	2.7
Operatives	15.4	6.8	10.1	2.7
Laborers (except farm)	7.1	7.2	1.6	.6
Farmers and Farm Managers	9.6	16.7	0.5	2.0
Farm Laborers and Foremen	6.3	1.0	1.6	-
Service Workers	6.4	2.7	20.8	9.4
Other or Not Reported	4.2	16.6	8.7	24.9

Occupational comparisons are similar except our sample has substantially more farmers and farm managers and fewer operatives than does the State as a whole. It is possible that census information from farmers is under-represented in light of the relative isolation of farms in parts of Idaho. The educational level of the sample was somewhat higher than that of the State as a whole in that 58% of the sample compared to 75% of the State have high

school or less education. Again it is possible that some of this difference may be due to error in census data.

Our sample has been grouped into three residential categories based on geographical areas within the State. Twenty-eight percent of the sample come from Northern Idaho, 37% from Southeast Idaho and 35% from the Southwest portion of the State. Table II.3. gives the size of residence of respondents when they were children.

Table II.3. Size of childhood residence

Size of Residence	Sample %
Rural Farm	40.3
Less than 2,499	17.3
2,500 - 9,999	16.0
10,000 - 49,999	17.1
50,000 or more	9.3

It is felt that the sample is sufficiently representative to make generalizations to the total population of Idaho, but as always they must be made with caution.

Chapter III

LAND AND WATER PRIORITIES IN IDAHO

A common fault of attitude surveys is to ask a respondent to indicate agreement and disagreement with a statement without providing the person a reference point as to his interest in the statement. For example, two people may indicate that we have enough wild and scenic rivers in Idaho but one may rank free flowing rivers low among water uses while the other may rank it high. Thus, it seems that to obtain a valid picture of the attitudes of respondents, their overall priorities must be considered.

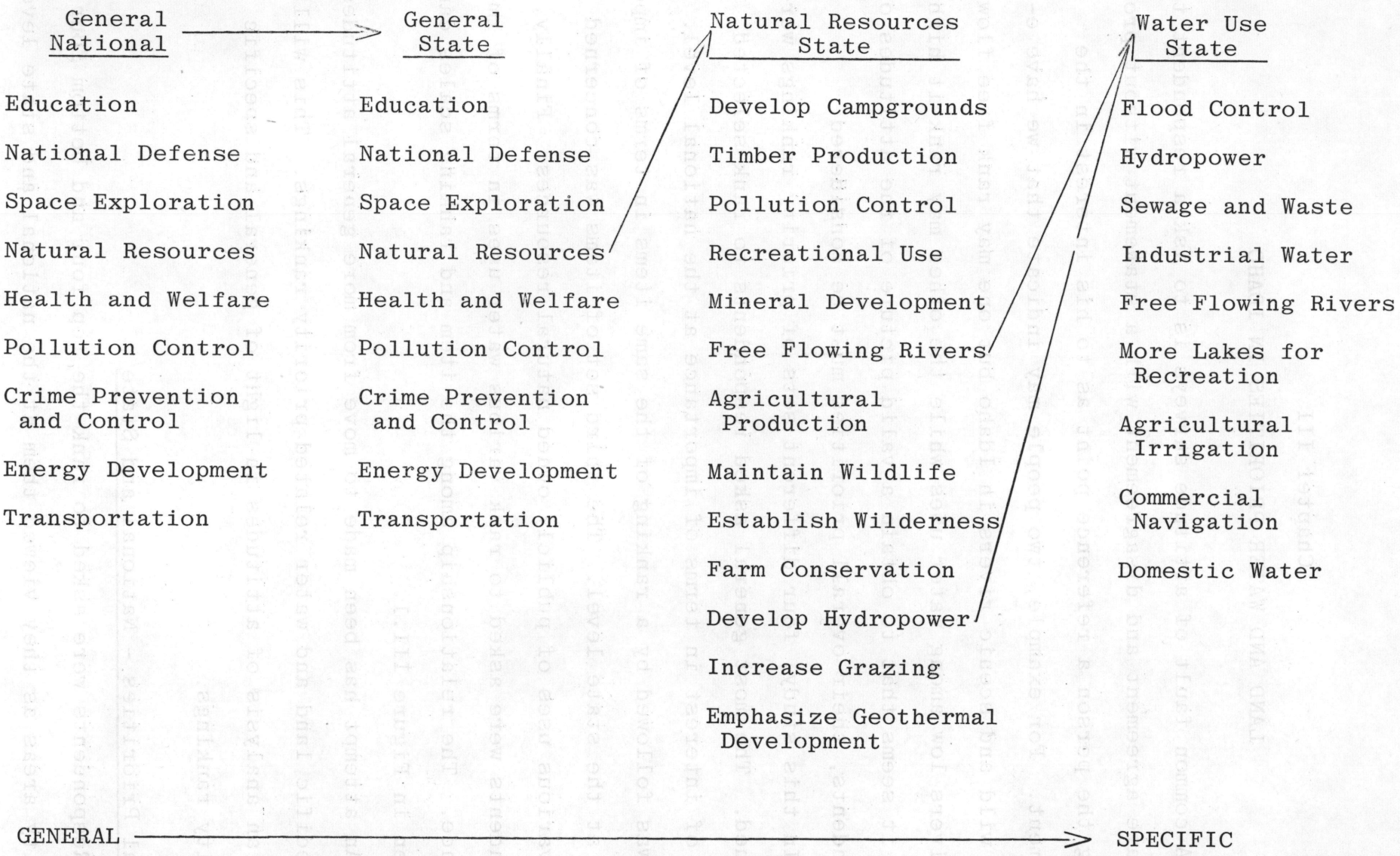
In this study, four different sets of priority rankings were obtained. The most general asked respondents to rank selected areas of interest in terms of importance at the national level. This was followed by a ranking of the same items in terms of importance at the state level. The third set of items was concerned with various uses of publicly owned natural resources. Finally, respondents were asked to rank various water uses in terms of importance. The relationship among the item and ranking scales can be seen in Figure III.1.

An attempt has been made to move from more general attitudes to specific land and water related priority rankings. This will allow an analysis of attitudes in light of general and specific priority rankings.

General Priorities - National and State

Respondents were asked to rank the top four and bottom four priority areas as they viewed them at the national and state levels.

Figure III.1. Relationship Among Priority Ranking Scales



The mean high and low priority rankings and the interest in each item are presented in Table III.1. The interest score is a function of the number of times the item was not ranked from one to four. Thus the lower the interest score, the higher in interest in the item. The two scores - interest and priority - must be considered together. One would interpret a high ranking item with a high interest differently than a high ranking item with low interest. A general importance score is computed by multiplying the ranking score by the interest score. This results in a weighted score based on consideration of both the average rank and the number of people ranking the item (i.e. interest).

In looking at the importance attached to various items at the national level the top five priorities are education, natural resources, national defense, energy development and crime prevention and control, respectively. Idahoans definitely believe that education should be top priority at the national level.

The items of least importance are space exploration, transportation, health and welfare, pollution control and national defense, respectively. National defense appears in both the high and low rankings. There are several possible reasons for this. The item may be a medium priority item in general so some may rank it at the low end of the high priority rankings while others may rank it at the high end of the low priority items. Energy development seems to fit this reasoning; it's fifth among the high priority items and fourth among the low priority items. Another explanation might be a polarization of attitudes at two extremes. A

Table III.1. General priority, interest areas and overall importance - state and national rankings.

General Area	National			State		
	Priority	Interest+	Overall Importance++	Priority	Interest	Overall Importance++
High Priority*						
Education	1.92 (1)**	193 (1)	371 (1)	1.78 (1)	124 (2)	221 (2)
National Defense	2.30 (2)	388 (5)	892 (3)	2.63 (3)	664	1746
Space Exploration	2.97	791	2349	3.23	808	2610
Natural Resources	2.41 (3)	204 (2)	492 (2)	2.08 (2)	101 (1)	210 (1)
Health and Welfare	2.83	573	1622	2.80 (4)	516	1445
Pollution Control	2.99	582	1740	3.07	517	1587
Crime Prevention and Control	2.78 (5)	372 (4)	1034 (5)	2.91 (5)	386 (4)	1123 (4)
Energy Development	2.66 (4)	356 (3)	947 (4)	2.93	446 (5)	1307 (5)
Transportation	3.20	689	2205	3.18	306 (3)	973 (3)
Low Priority***						
Education	2.80	680	1904	2.71 (5)	720	1951
National Defense	2.56 (4)	505 (5)	1293 (5)	2.32 (2)	307 (2)	712 (2)
Space Exploration	1.77 (1)	137 (1)	242 (1)	1.69 (1)	179 (1)	303 (1)
Natural Resources	2.82	681	1920	2.65 (4)	728	1929
Health and Welfare	2.54 (3)	358 (3)	909 (3)	2.61 (3)	406 (5)	1060 (3)
Pollution Control	2.82	381 (4)	1074 (4)	2.79	405 (4)	1130 (5)
Crime Prevention and Control	2.94	558	1641	2.96	516	1527
Energy Development	2.79 (5)	559	1560	2.85	470	1340
Transportation	2.52 (2)	306 (2)	771 (2)	2.81	384 (3)	1079 (4)

*The lower the score, the higher the priority for high priority rankings.

**Numbers in parantheses indicate the ranking of the top five areas.

***The lower the score, the lower the priority for low priority rankings.

+The lower the number the higher the interest.

++The lower the score the more important on high priority rankings and the lower the score the lower the importance on low priority rankings.

few respondents with an extreme priority ranking could place the item among both the top and bottom five priorities. National defense might be an example of this. It's fifth in interest in the low priority rankings, yet those who were interested were fairly extreme in their ranking of the item. The combining of interest and priority rankings into a weighted scale minimizes this problem.

Idahoans feel somewhat different when ranking these items at the state level. Natural resources is of most importance at the state level. It has the second highest priority ranking but is of most interest, thus it has a weighted ranking of one. Closely following natural resources is the area of education. This is consistent with a regional survey recently completed within the state (Carlson, 1974). Transportation, crime prevention and control, and energy development follow in importance.

Items of low importance at the state level are essentially the same as those listed at the national level with slightly different priority rankings. Space exploration is of least importance followed by national defense, health and welfare, transportation and pollution control. Transportation is listed both among the low and high importance rankings. This seems to be the result of a polarization of attitudes. While it is not among the lowest five areas of importance in terms of its average priority score it was ranked third in interest among the low priority items. It holds a similar position among the high priority items. Thus, its inclusion in rankings is due primarily to its interest scores rather than its priority ranking.

Natural Resource Priorities

This priority scale focuses on a number of land and water resource uses. Again respondents were asked to rank their top and bottom four priorities. These uses reflect both a utilization and preservation continuum. Results are presented in Table III.2.

Based on these findings it seems that respondents are selectively preservation or utilization oriented. Among areas of high importance are found "lumber production" as well as "maintaining free flowing rivers"; and "develop more hydropower" and establish more wilderness" are among the areas of low importance.

Pollution control ranked as the most important area among resource uses in Idaho; it received both the highest interest and highest priority scores. This was followed by maintenance of free flowing rivers, timber production and better farm conservation in that order. Developing more campgrounds ranked the lowest in terms of importance. Establishing more wilderness areas was next to the lowest in importance followed by developing hydropower, developing campgrounds and mineral development in that order.

When considering natural resource alternatives some general observations can be made. Idahoans definitely seem to prefer the maintenance of free flowing streams over the development of more hydropower. They also seem opposed to increased recreational development in general. As would be expected they do view timber production as an important and acceptable use of natural resources. Mineral development, on the other hand, is not as acceptable.

Water Use Priorities

The final scale asks respondents to rank their high and low priorities with regard to various water resource uses in the state. Results appear in Table III.3. The use of water for agricultural irrigation, domestic water supply and flood control rank one, two, and three, respectively, as the most important uses for Idaho water. Free flowing rivers and sewage and waste disposal rank fourth and fifth in priority. Commercial navigation ranks lowest in importance followed by more lakes for recreation, industrial water supply, sewage and waste disposal and free flowing fivers, respectively. Again there is some polarization on free flowing rivers and sewage and waste disposal. In general the findings suggest that free flowing rivers should be high priority while the converse is evident for sewage and waste disposal.

The variations between the water resource scale and the natural resource scale rankings suggests the importance of the framework within which the rankings are made. For example, while free flowing rivers is considered to be of high importance among a variety of resource uses it is of considerably less importance when considered only in light of other water uses. In fact, while a somewhat preservation orientation exists among the natural resource areas of high importance a much more utilitary attitude exists among the water resource areas of high importance. Thus it becomes difficult to characterize Idahoans as typically utilization or preservation oriented. Numerous complexities exist regarding attitudes, values and preference configurations among the residents

Table III.2. Natural resource priority, interest areas, and overall importance

Natural Resource Areas	High Priority*			Low Priority		
	High Priority	Interest	Overall Importance***	Low Priority	Interest	Overall Importance***
Develop Campgrounds	2.69	677	1821	2.39 (4)	472 (2)	1128 (4)
Timber Production	2.26 (2)**	564	1275 (4)	2.64	578	1526
Pollution Control	1.97 (1)	279 (1)	550 (1)	2.63	723	1901
Recreational Use	2.80	708	1982	2.38 (3)	453 (1)	1078 (1)
Mineral Development	2.76	682	1882	2.44 (5)	488 (4)	1191 (5)
Free Flowing Rivers	2.30 (3)	467 (3)	1074 (2)	2.50	643	1608
Agricultural Production	2.48 (4)	609	1510	2.60	575	1495
Maintain Wildlife	2.78	441 (2)	1226 (3)	2.62	663	1737
Establish More Wilderness	2.78	669	1860	2.26 (2)	484 (3)	1094 (2)
Better Conservation by Farmers	2.67	503 (4)	1343 (5)	2.85	653	1861
Develop More Hydropower	2.62 (5)	636	1666	2.23 (1)	502 (5)	1119 (3)
Increase Grazing	2.65	675	1789	2.64	518	1368
Emphasize Geothermal Development	2.74	556 (5)	1523	2.80	644	1803

* The lower the score, the higher the priority for high priority rankings. The lower the score the lower the priority for low priority rankings.

** Item ranks are in parentheses.

*** For high priority rankings the lower the score, the higher the importance. For low priority rankings the lower the score, the lower the importance.

Table III.3. Water resource priority, interest areas, and overall importance.

Water Resource Area	High Priority*			Low Priority		
	High Priority Ranking	Interest	Overall Importance	Low Priority Ranking	Interest	Overall Importance
Flood Control	2.60 (5)**	288 (3)	749 (3)	2.96	628	1859
Hydroelectric Power Generation	2.64	454 (5)	1199	2.62 (5)	459 (5)	1203
Sewage and Waste Disposal	2.53 (4)	462	1169 (5)	2.00 (1)	439 (4)	878 (4)
Industrial Water Supply	3.28	657	2155	2.68	299 (3)	801 (3)
Free Flowing Rivers	2.09 (1)	450 (4)	941 (4)	2.38 (3)	472	1123 (5)
More Lakes for Recreation	2.92	669	1953	2.54 (4)	287 (2)	729 (2)
Agricultural Irrigation	2.32 (2)	184 (1)	427 (1)	2.66	696	1851
Commercial Navigation	3.38	799	2701	2.31 (2)	171(1)	395 (1)
Domestic Water Supply	2.37 (3)	189 (2)	448 (2)	3.03	695	2106

*same as previous table

**same as previous table

of Idaho. A summary of the rankings of the various scale items appears in Figure III.2.

Interscale Correlations

The emphasis of this report is on natural resources and, more specifically, the importance placed on free flowing rivers as a water and land use alternative. Do those who rank natural resources high at the national level rank them high at the state level? Is there a relationship between the ranking of free flowing rivers and the ranking of natural resources in general? This section explores some of these issues.

For this analysis only high priority rankings are utilized due to small frequencies in the cells when low priority rankings were cross tabulated. In essence the results are comparable in that low priority rankings reflect the opposite extreme of the priority continuum.

If we begin with the most general priority ranking (national level) as the predictor variable we find a high correlation between ranking at the national level and the state level. Sixty-six percent ranked natural resources at both the state and national levels and 55% of those ranked the priorities the same. Knowledge of one's ranking of natural resources at the national level reduced error in predicting one's ranking at the state level by 66% (Gamma = .66). In other words, there is a high correlation between rankings of natural resources at the state and national level.

On the other hand, when moving to more specific resource uses one's general ranking of natural resources is of little value in

Figure III.2. Areas of high and low importance by scale category

General National	General State	Natural Resources State	Water Resources State
HIGH IMPORTANCE			
1. Education	1. Natural Resources	1. Pollution Control	1. Agricultural Irrigation
2. Natural Resources	2. Education	2. Free Flowing Rivers	2. Domestic Water Supply
3. National Defense	3. Transportation	3. Maintain Wildlife	3. Flood Control
4. Energy Development	4. Crime Prevention and Control	4. Timber Production	4. Free Flowing Rivers
5. Crime Prevention and Control	5. Energy Development	5. Better Farm Conservation	5. Sewage and Waste Disposal
LOW IMPORTANCE			
1. Space Exploration	1. Space Exploration	1. Recreational Use	1. Commercial Navigation
2. Transportation	2. National Defense	2. Establish More Wilderness	2. More Lakes for Recreation
3. Health and Welfare	3. Health and Welfare	3. Develop More Hydro-power	3. Industrial Water Supply
4. Pollution Control	4. Transportation	4. Develop Campgrounds	4. Sewage and Waste Disposal
5. National Defense	5. Pollution Control	5. Mineral Development	5. Free Flowing Rivers

GENERAL → SPECIFIC

predicting the ranking of free flowing rivers among other resource uses and among other water related uses. To begin with, only 32% of the sample ranked both natural resources at the national level and free flowing rivers as a resource use among their top four priorities. The same holds for free flowing rivers as a water use alternative. Of those who did rank both, error of prediction of free flowing rivers priority among land and water uses can be reduced only slightly with knowledge of national level priorities (Gamma - 0.04 and .07, respectively). Using state ranking of natural resources as a prediction of free flowing river ranking provides little improvement in predictability (Gamma = -.01 and .07), although more people ranked both items at the state level (36% compared to 32%).

Finally, one can look at free flowing rivers as a use among both land and water uses or only as an alternative water use. This study does both. Surprisingly, only 31% of the respondents rank free flowing rivers among the top four in both the general resource ranking and the specific water resource ranking. Among those who ranked both there is a moderately high correlation. Error in predicting ranking of free flowing rivers among water uses can be reduced by 25% with knowledge of one's ranking of free flowing rivers among general natural resource alternatives.

In sum, ranking of the item "maintaining free flowing rivers" cannot be predicted well from one's overall ranking of natural resources at the state or national level. In other words, one's feelings of the importances of natural resources is not necessarily indicative of the importance that he places on the maintenance of free

flowing rivers. Even at more specific levels of analysis such as free flowing rivers as a natural resource use and a water use the correlations are low.

Social Background Variation

A final aspect of our analysis of priorities will focus on the effect of selected social background variables on the priority ranking of natural resources at the state and national level and maintenance of free flowing rivers as a land and water use.

Natural Resources

Among the national rankings several variables affect the priority ranking of natural resources. There is a slight tendency for the younger respondents to rank natural resources as first priority more often than the older respondents. This relationship still holds when ranking natural resources at the state level but there is a greater tendency at the state level for the very old to rank natural resources as a top priority. Respondent's occupation also affects his ranking. White collar occupations rank natural resources higher in priority than blue collar occupations. This variation also occurs at the state level but the differences are less than they are at the national level. There is also a slight tendency for those who spent most of their childhood in urban areas to rank natural resources higher in priority than those from more rural childhood residences. This finding is more pronounced for the state rankings. Present residence is also a factor in that natural resources is ranked higher by those in northern Idaho than by those from other areas of the state. In this

case the differences are stronger for the national rankings than for the state rankings.

With the exception of childhood residence there is a tendency for background effects to exert a stronger influence on rankings at the national level. When issues are more state oriented these variations diminish in intensity. This likely reflects a greater homogeneity of attitudes regarding state oriented issues. It seems that the strongest variable at the state level is childhood residence or, in effect, early childhood socialization.

Free Flowing Rivers

Few background variables affect the ranking of maintaining free flowing rivers as a natural resource use. Respondents' social status as measured by the Duncan Index does indicate that those of higher social status are less likely to rank the maintenance of free flowing rivers as a high priority among resource uses. This trend holds only slightly when ranking free flowing rivers among various water uses. Residence is the only other variable of importance. Again, respondents from northern Idaho are more likely to rank free flowing rivers as top priority than from the southeast or southwest part of the state. The differences are very slight and become less important when ranking free flowing rivers among other water uses. In fact, when combining the first two priority rankings the differences do not hold. Southeast residents are more likely to rank free flowing rivers first or second in priority among other resource uses whereas southwest residents are more likely to rank free flowing rivers first or second among water use alternatives.

Resource Priorities and Attitudes Toward Wild and Scenic Rivers

Earlier it was argued that often attitudes are measured without knowledge as to the importance placed on the concept within the respondent's overall priority profile. Does it make a difference in one's attitude depending on his priority ranking and vice versa? Initially the focus will be on the intensity of attitudes toward wild and scenic rivers as it affects the ranking of natural and water resources. Table III.4. presents the correlations between the various priority rankings and attitude toward wild and scenic rivers.

Table III.4. Correlations Between High Priority Rankings and Attitudes Toward Wild and Scenic Rivers

Priority Item	Gamma	Probability of Chance Occurrence
Natural resources - national level	+.01	p = .30
Natural resources - state level	+.11	p = .11
Free flowing rivers - natural resource ranking	-.03	p = .50
Free flowing rivers - water ranking	+.31	p < .01

Those who have the most extreme attitudes toward wild and scenic rivers are most likely to rank natural resources high at the national level. This is likely due to different interpretations of wise use of natural resources. Those who feel we have enough wild rivers may rank wise use of natural resources high based on a utilization interpretation of wise use while those who

prefer more wild rivers may have interpreted wise use in terms of preservation. In general, the relationship is slight and nonsignificant statistically. At the state level those who prefer more wild and scenic rivers rank natural resources as a higher priority than those who do not. That is, state rankings are a better predictor of wild rivers attitudes than national rankings but the relationship is not significant.

When looking at free flowing rivers as a general resource use one's feeling toward wild and scenic rivers has only a slight effect on the priority ranking. It seems unusual but those who agree that we have enough wild rivers are more likely to rank free flowing rivers as a higher priority, but only slightly higher than those who would prefer more wild rivers. It may be that although respondents feel there are enough wild rivers they still rank them high in priority among general resource uses.

The strongest relationship emerges when the ranking of free flowing rivers among water uses is considered in light of attitudes toward wild rivers. There is a definite tendency for those who prefer more wild rivers in Idaho to rank free flowing rivers as a high priority. Thus, at the more specific level of analysis a stronger correlation exists between intensity of attitude and priority ranking, but in general areas it would be of added value to have his priority ranking in assessing the meaning of his intensity evaluation. This points to an important consideration in future attitude research. To ignore broader value areas and a respondent's overall priorities may provide misleading attitude responses. Future research should attempt to measure broader value hierarchies in addition to specific attitudes.

Chapter IV

SOCIO-ECONOMIC CHARACTERISTICS AND FREE FLOWING RIVERS

To avoid bias related to the term wild and scenic river the concept free flowing rivers was used throughout most of the questionnaire. However, in the likert scale portion of the questionnaire we did refer to wild and scenic rivers when asking attitudes about the number of wild rivers in Idaho. This chapter will focus on the responses to that particular question. The purpose will be to analyze the factors affecting one's attitudes toward whether we have enough legally designated wild and scenic rivers in Idaho. Table IV.1. indicates the general response to the item.

Table IV.1. We Have Enough Legally Designated Wild and Scenic Rivers in Idaho.

		N	%
Strongly agree	1	178	22.5
	2	46	5.8
	3	96	12.1
	4	49	6.2
	5	88	11.1
	6	51	6.4
	7	31	3.9
	8	73	9.2
	9	47	5.9
Strongly Disagree	10	132	16.7
		791	100

$\bar{X} = 5.113$

Standard Deviation = 3.29

As can be seen, responses of Idahoans tend toward the extremes of the question on wild and scenic rivers. The model responses are at the two extreme positions with 23% strongly agreeing that we have enough wild rivers and 17% strongly disagreeing with the statement. The mean of the distribution is 5.11 or essentially in the middle of the range. This is consistent with the tendency to polarize responses in the ranking of free flowing rivers in the preceding chapter. In general, there is a slight tendency for Idahoans to feel that we have enough wild rivers in Idaho. While this trend exists in general, there may be variation in responses due to background factors. The zero-order correlations are presented in Table IV.2.

Table IV.2. Zero-order correlation coefficients between selected socio-economic characteristics and attitudes toward wild and scenic rivers.

Variable	r
Age	-.19
Sex	-.02
Respondent's education	.13
Respondent's social status	-.03
Income	-.11
Childhood Residence	.15
North Idaho residence	.05
Southeast Idaho residence	-.06
Southwest Idaho residence	.01

Age, education, income and childhood residence are the most strongly correlated with attitudes toward wild and scenic rivers.

The young, those with high education, those with low incomes and those raised in urban areas are most likely to favor more wild and scenic rivers.

Very little difference emerges when selected variables are treated together in a multiple regression procedure. Table IV.3. presents the results of the model.

Table IV.3. Regression model of background variables and attitudes toward wild and scenic rivers.

Variable	Beta	F	Probability
(constant) 4.647			
Age	-.12	6.07	$p < .01$
Sex	.01	0.07	N.S.
Respondent's education	.14	7.70	$p < .01$
Respondent's social status	-.07	1.88	N.S.
Income	-.12	7.50	$p < .01$
Childhood residence	.11	5.01	$p < .01$
$R^2 = .075$	$F_{6,601} = 6.81$		
$R = .27$	$p < .01$		

Four variables contribute significantly to the overall model. Respondents' education has the strongest effect on the dependent variable with those having more education being more likely to indicate that we should have more wild and scenic rivers. Age and income show identical strength of relationship. Younger respondents and those with smaller incomes are more likely to be preservation oriented. Finally, respondents growing up in urban areas are more likely to be high on preservation of rivers than those

growing up in rural areas. Social status and sex affect variation negligibly. With the exception of income these findings are in the expected direction. Other studies have shown that the younger more educated person from urban childhood tends to be more preservation oriented in general. The effects of income are contrary to most studies. This is difficult to explain but it may be that higher incomes are associated more with primary, extractive occupations in Idaho than in other areas. It is also possible that non-response bias is a factor in that the number of non-responses for income were rather high.

It would be hypothesized that a respondent's perceived knowledge about the Wild and Scenic Rivers Act might influence his attitude toward preserving more rivers. That is, it would act as an intervening variable in the regression model and its inclusion would increase the amount of variance explained. This was done and little difference was noted in the ability of the model to explain variance in the dependent variable. That is, whether or not a person perceives that he is well informed about the Wild and Scenic Rivers Act has no effect on whether he thinks there should be more of them in Idaho or not. It is possible that his perception of knowledge is not correlated with his actual knowledge.

Chapter V

FREE FLOWING RIVERS AND OTHER LAND AND WATER USES

The setting aside of land and water resources has not been limited to wild and scenic rivers in Idaho. Idaho has considerable acreages of wilderness and recreation areas being preserved and has more under consideration. A question arises as to whether the preservation orientation is specific to particular resources under consideration or is general to all aspects of natural resources. This study allows us to examine this question in that separate questions are asked related to whether Idaho has enough wild rivers, wilderness, national parks, state parks or wildlife areas established.[1] If a general preservation orientation exists among respondents a high correlation will exist among these questions; if not, minimal correlation will result. Table V.1 indicates the correlation coefficients among the various preservation questions.

As can be seen, the intercorrelations among these items are relatively high. In fact, these intercorrelations are the highest correlations among the whole set of items. It is also evident that the higher correlations are among the most preservation

---

[1]The exact questions are:
We have enough state parks in Idaho.
We have enough legally designated wilderness in Idaho.
We have enough legally designated wild and scenic rivers in Idaho.
Enough land has been set aside for wildlife protection and recreational use.
We have enough national parks and national recreation areas.

Table V.1. Correlation coefficients among preservation questions.

	State Parks	Wilderness	Wild Rivers	National Parks	Wildlife
State Parks					
Wilderness	.33				
Wild Rivers	.38	.62			
National Parks	.51	.50	.41		
Wildlife	.35	.56	.53	.41	

oriented areas. For example, the correlations between state parks (usually more use oriented) and wilderness, wild rivers and wildlife are the lowest and it is only slightly higher with national parks (less use oriented than state parks). The correlations between national parks and wilderness, wild rivers and wildlife are in the middle whereas the correlations among wilderness, wildlife and wild rivers are the highest. In addition to the zero-order correlations a factor analysis of all items lends further support to the above findings. The primary factor emerging consisted of the five preservation questions and explained 23.4% of the variance among the items.

The factor loading (regression weights) of each item is presented in Table V.2 along with the amount of variation in each variable explained by the factor.

For example, the preservation factor explains 44% of the variation in the state park variable, 32% of the variation in the wild river variable, 42% of the variation in the wildlife variable, etc. The r^2 value in the right hand column indicates the amount

of variation explained by all common factors. Thus, one can easily determine the proportion of the total explained by the preservation factor. In addition, the regression weights indicate the correlation (r) between the preservation factor in general and each item making up that factor. Thus, national parks correlates most strongly with the factor while wild rivers shows the lowest correlation.

Table V.2. Regression weights and explained variance for preservation factor.

Variable	Regression Weight	r^2	Total r^2 Accounted for by All Factors
State Parks	.66	.44	.53
Wild Rivers	.57	.32	.54
Wildlife	.65	.42	.57
Wilderness	.61	.37	.65
National Parks	.74	.55	.60

In sum, the five items above seem to form a group of questions that have a common underlying dimension. This set of items will be referred to as a utilization-preservation (U-P) dimension. In further analysis one would expect similar results whether treating each of the variables separately or combined as a scale. In sum, there seems to be a strong utilization-preservation value among Idahoans and the orientation is general rather than specific in nature. That is, if a person values wilderness areas he will likely value wild and scenic rivers.

Socio-Economic Background and Resource Preservation

In that a general utilization-preservation (U-P) dimension has been developed the next step is to look at factors that contribute to the variation in the dimension score. Initially we will look at the zero-order relationships between the U-P items and selected socio-economic items. Table V.3 presents these correlations.

Table V.3. Correlations coefficients between background items and U-P items.

	State Parks	Wildlife	Wild Rivers	Wilderness	National Parks
Age	-.04	-.18	-.19	-.20	-.14
Sex	.01	-.08	-.02	.02	-.03
Respondent's Education	.16	.10	.13	.13	.16
Respondent's Social Status	.08	-.04	-.03	.02	.04
Family Income	-.03	-.02	-.11	-.12	-.02
Childhood Residence	.16	.22	.15	.23	.19
North Idaho Residence	.05	.02	.04	.06	.04
Southeast Idaho Residence	-.10	-.08	-.03	-.06	-.06
Southwest Idaho Residence	.06	.06	-.01	.00	.01

For all background variables the zero-order correlations are similar for each U-P item. Three background variables have substantially higher correlations than the rest. Childhood residence has the highest correlation with those from larger cities being

more preservation oriented. Age and education also have higher correlations. The younger and the more educated are more preservation oriented.

The combined effects of these variables on the U-P items can be analyzed using a technique known as cannonical correlation. Cannonical correlation allows the investigator to look at the relationship between two sets of data where each set may be characterized by more than one underlying dimension (Nie, Bent, and Hull 1970; Van de Greer, 1971). The goal of cannonical correlation ". . . is to find the linear correlation of variables in each set in such a way that the resultant correlation between the two composite indices--known as cannonical variates--is maximum" (Nie et al. 1970: A-003-244-02 revision update).

For this analysis a set of background variables will be compared with the U-P items to determine the maximum correlation between the two sets. Of more concern than the correlation between the sets is the relative contribution of each item to the total relationship. Table V.4 presents the regression coefficients for the first set of cannonical variates.

Among the U-P items wilderness and wildlife have the highest coefficients and, thus, contribute the greatest amount to the relationship among the dependent variables. Wild rivers contributes the least when the effects of the background variables are considered. The social background variables explain 12% of the variation in the U-P items. While not extremely high it is statistically significant at the .001 level. Of more importance is

Table V.4. Cannonical correlation coefficients between U-P items and background variables.

Items	Regression Coefficients
Dependent variables	
State parks	.14
Wildlife	.32
Wild rivers	.09
Wilderness	.52
National parks	.23
Independent variables	
Age	-.32
Sex	-.07
Respondent's education	.30
Respondent's social status	-.06
Income	-.33
Childhood residence	.64
North Idaho resident	.61
Southeast Idaho resident	.29
Southwest Idaho resident	.54

$r = .34$ $\quad x^2 = 100.72$

$r^2 = .12$ $\quad df = 45$

$p < .001$

the direction of relationships among these variables. As can be seen, childhood residence has the strongest effect. Those coming from urban areas tend to be more preservative oriented than those from rural backgrounds. This is consistent with other related research. There is also an indication that north Idaho and southwest Idaho residents are more preservation oriented. Other variables

SUMMARY AND CONCLUSIONS

This study has taken a broad look at several aspects of wild and scenic rivers. By virtue of its objectives it was felt that the only alternative was to attempt to assess in general attitude and value information regarding land and water use in Idaho.

For the land and water manager this approach may not provide him with the specificity needed for management. For this lack I offer no apology because the general public is usually not knowledgeable enough to indicate how wild and scenic rivers themselves should be managed. Thus, the results of such an endeavor would likely be invalid and useless.

On the other hand, the public does influence decisions regarding directions of land and water use in a broad sense. Are more wild rivers desired? If so, by what segment of the population? These are the kinds of issues this survey was designed to study.

There is little doubt that natural resources are important to the people of Idaho. Among selected areas of possible concern to Idaho residents natural resources ranks as being of most importance followed very closely by education. This is not surprising in light of the importance of natural resources to the economy of Idaho. On the other hand, while extractive industries form the basis of the Idaho economy there is a strong sense of concern regarding the exploitation of Idaho's resources. Respondents are concerned about controlling pollution, the status of their rivers, wildlife populations, and farm conservation. These are the most

with high coefficients are age, education, and family income. Younger respondents and those with higher education are more preservation oriented. However, respondents with higher incomes tend to be utilization oriented. While this seems unusual it may be that the higher income respondents have occupations more related to natural resource uses than the others. Also it may be due to the higher nonresponses in the income variable.

It should also be noted that by combining all U-P items together one can increase the explained variance by almost 5% over treating only attitudes toward wild and scenic rivers as the dependent variable.

important natural resource use alternatives mentioned. These issues are balanced on the other hand by a strong emphasis on timber production as a natural resource alternative. This attempt on the part of Idahoans to balance the environmental and economic concerns is further reflected in the manner in which they prioritize water resource alternatives. Agricultural irrigation, domestic water supply, flood control, and sewage and waste disposal are top water use priorities among Idaho residents. At the same time free flowing rivers are also listed among the top priority items and the development of more hydropower is listed among the items of low priority.

The findings further suggest a tendency on the part of Idahoans to polarize attitudes and values toward natural and water resource issues. This is reflected in the controversial nature of many resource issues. For example, the findings indicate that attitudes toward having more wild and scenic rivers in Idaho are polarized at both extremes with a slight majority not wanting additional wild and scenic rivers. This may explain the high degree of controversy over the rivers presently under study for possible inclusion into the wild and scenic river system.

Findings from this study suggest that Idahoans attempt to maintain a meaningful balance between the social, economic, and environmental aspects of man-land relationships discussed in Chapter One. This balance seems to occur rather subconsciously through a trade-off process. Individuals interact within reward-cost framework. That is, individuals attempt to maximize their rewards from

interaction and minimize their costs. These rewards and costs are not necessarily tangible but may be related to happiness, satisfaction, feelings of pride, accomplishment, etc.

Individuals will tend to maximize profits (rewards-costs) if possible but are usually willing to vary their outcomes within certain limits. These limits are often tied closely to one's value hierarchy. For example, one may give up a rewarding activity (i.e. fishing) if it means maintaining a different reward higher in the value hierarchy (i.e. family harmony). This is related to our discussion of the three aspects of man-land relationships (economic, ecological, and cultural). The best decision is one that allows each to maintain its optimal activity indefinitely. These decisions usually require trade-offs between the three aspects. Thus, cultures may be required to alter their behaviors in order to maintain a liveable environment. In most cases the definition of what is optimal in each of the three areas is primarily social in nature. For example, Burch (1971) indicates that our present knowledge is such that a liveable environment is primarily defined by our personal values. Thus, when we argue for a given position we are really saying that a particular combination of social institutions, roles and positions are valued by us (Burch 1971: 11). We can change our reward structure and priorities to provide the kind of environment we value. To do this requires data on the cultural dimension of man-land relationships. This data should consist of both values and attitudes or opinions and it should be gathered periodically to monitor change. Attitudes

tend to change quite rapidly often following the fads of the period. Basic values change much more slowly and would seem to be a better input into the decision-making process.

REFERENCES

Burch, William. 1971. Daydreams and Nightmares, Harper and Row.

Carlson, John. 1974. Attitude Toward Resource Planning and Development in Twin Falls, Jerome, Minidoka and Cassia Counties (unpublished manuscript).

Firey, Walter. 1960. Man, Mind and Land, The Free Press.

Harris, Douglas. 1974. The Social Dimensions of Water Resources Planning. Anacopa Sciences, Incorporated, Santa Barbara, California.

James, Douglass (ed). 1974. Man and Water. University of Kentucky Press.

Nash, Roderick. 1967. Wilderness and the American Mind. Yale University Press.

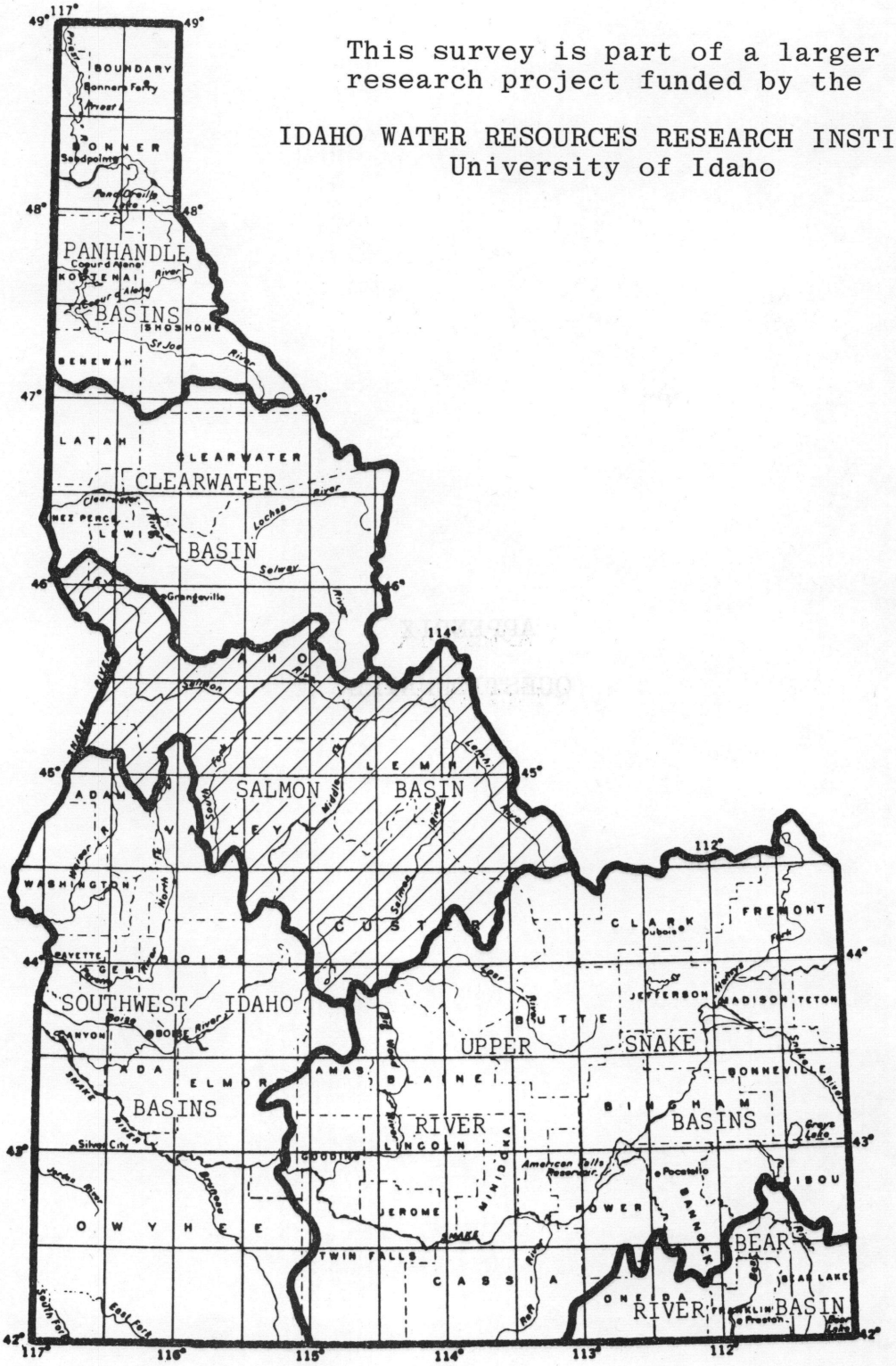
Nie, Bent, Hull. 1970. SPSS: Statistical Package for the Social Sciences. McGraw Hill.

Van de Greer, John. 1971. Introduction to Multivariant Analyses for the Social Sciences. Freeman, San Francisco, California.

APPENDIX

QUESTIONNAIRE

IDAHO LAND USE SURVEY



This survey is part of a larger research project funded by the

IDAHO WATER RESOURCES RESEARCH INSTITUTE
University of Idaho

You have been selected randomly as a participant in this study, and in order to obtain meaningful results, it is important that you complete the questionnaire. Your name will not appear on the questionnaire, and you can be assured that your responses are completely anonymous. If you have any questions or comments, do not hesitate to ask the interviewer. If the interviewer cannot answer your questions, feel free to call Dr. John Carlson, University of Idaho, at 885-6736.

IDAHO LAND USE SURVEY

1a. Listed below are a number of general areas that affect most Americans, and are of interest to many. Please consider each category carefully, and decide how important it is to the welfare of the American people.

FIRST, considering the welfare of the American people, please rank the four categories you believe should receive the highest priority on the National level. (1 for highest priority, 2 for next highest priority, continuing until you have ranked four categories).

SECOND, also considering the welfare of the American people, please rank the four categories you believe should receive the lowest priority on the National level. (1 for lowest priority, 2 for next lowest priority, continuing until you have ranked four categories).

BE SURE TO RANK FOUR HIGH PRIORITY CATEGORIES AND FOUR LOW PRIORITY CATEGORIES.

Priority at the National Level		
High Priority Rank	Low Priority Rank	
_____	_____	Education
_____	_____	National Defense
_____	_____	Space Exploration
_____	_____	Wise Use of Natural Resources (minerals, water, land)
_____	_____	Health and Welfare Programs
_____	_____	Pollution Control
_____	_____	Crime Prevention and Control
_____	_____	Energy Development
_____	_____	Transportation (highway, air, rail)
_____	_____	Other (Specify _____)

1b. Listed below are the same categories as on the previous page. Now, please consider each category carefully and decide how important it is to the welfare of the people of Idaho.

FIRST, considering the welfare of the people of Idaho, please rank the four categories you believe should receive the highest priority on the State level. (1 for the highest priority, 2 for the next highest priority, continuing until you have ranked four categories).

SECOND, also considering the welfare of the people of Idaho, rank the four categories you believe should receive the lowest priority on the State level, (1 for lowest priority, 2 for next lowest priority, continuing until you have ranked four categories).

BE SURE TO RANK FOUR HIGH PRIORITY CATEGORIES, AND FOUR LOW PRIORITY CATEGORIES.

Priority at the State level

High Priority Rank	Low Priority Rank	
_____	_____	Education
_____	_____	National Defense
_____	_____	Space Exploration
_____	_____	Wise Use of Natural Resources (minerals, water, land)
_____	_____	Health and Welfare Programs
_____	_____	Pollution Control
_____	_____	Crime Prevention and Control
_____	_____	Energy Development
_____	_____	Transportation (highway, air, rail)
_____	_____	Other (Specify _____)

2. From the above list we would like to focus on the area of publicly owned natural resources in Idaho. Our government manages natural resources for a variety of uses. Some of these uses are listed below. Please look at each type of use carefully and decide how important it is the welfare of the people of Idaho.

FIRST, please rank the four uses you believe should receive the highest priority in terms of the welfare of the people of Idaho (1 for highest priority, 2 for the next highest priority, continuing until you have ranked four items).

SECOND, please rank the four uses you believe should receive the lowest priority in terms of the welfare of the people of Idaho (1 for the lowest priority, 2 for the next lowest priority, continuing until you have ranked four items).

BE SURE TO RANK FOUR ITEMS FOR HIGH PRIORITY AND FOUR ITEMS FOR LOW PRIORITY.

High Priority Rank	Low Priority Rank	
_____	_____	Develop campgrounds for outdoor camping.
_____	_____	Emphasize timber production.
_____	_____	Control pollution of natural resources (water, air, land).
_____	_____	Develop forests for more recreational use.
_____	_____	Explore for and mine valuable minerals.
_____	_____	Maintain rivers and streams in their free flowing condition for recreation use.
_____	_____	Increase agricultural production by reclaiming more land.
_____	_____	Maintain wildlife threatened by extinction.
_____	_____	Establish more wilderness area.
_____	_____	Encourage farmers to adopt better conservation practices.
_____	_____	Develop more hydroelectric power by constructing dams as the need arises.
_____	_____	Increase the use of forest and range land for grazing
_____	_____	Emphasize geothermal energy development.

3. One of the areas of natural resources you considered above was that of water resources. Considering what you know about the present uses of Idaho's water resources, how important do you believe each of the following uses of water resources is in terms of the welfare of the people of Idaho, between now and the year 2000. Please look at each category carefully before making your decision.

FIRST, please rank the four uses you believe should receive the highest priority in terms of the welfare of the people of Idaho (1 for the highest priority, 2 for the next highest priority, continuing until you have ranked four items.)

SECOND, please rank the four uses you believe should receive the lowest priority in terms of the welfare of the people of Idaho (1 for the lowest priority, 2 for the next lowest priority, continuing until you have ranked four items).

AGAIN, BE SURE TO RANK FOUR ITEMS FOR HIGH PRIORITY AND FOUR ITEMS FOR LOW PRIORITY.

High Priority Rank	Low Priority Rank	
_____	_____	Flood Control
_____	_____	Hydroelectric power generation
_____	_____	To dispose of sewage and industrial wastes
_____	_____	For industrial water supply
_____	_____	Maintain streams and rivers in their free flowing conditions for recreation use.
_____	_____	To develop more lakes and reservoirs for recreational use
_____	_____	For agricultural irrigation
_____	_____	For commercial navigation
_____	_____	For domestic and municipal water supply

For each of the following statements indicate whether you agree (A) or disagree (D) with the statement. Once you have made this decision, please indicate how strongly you agree or disagree with the statement, by indicating one of the numbers which appears to the right of each statement. If it really doesn't make any difference to you if you agree or disagree, indicate 1. If you strongly agree or disagree with the statement, indicate 5. For some statements, the numbers 2,3, or 4 may better describe how strongly you agree or disagree with the statement. When this is the case, indicate the appropriate number. Before you circle a number, be sure to circle (A) agree or (D) disagree.

1.	I generally feel guilty when I enjoy leisure for more than a short time.	A D 1 2 3 4 5
2.	Even where timber is the principal product obtained from the forest many other secondary products can be derived.	A D 1 2 3 4 5
3.	We have enough state parks in Idaho.	A D 1 2 3 4 5
4.	Idle land is a benefit to society.	A D 1 2 3 4 5
5.	Leisure serves a useful purpose in life.	A D 1 2 3 4 5
6.	Regarding land use decisions the rights and desires of others are just as important as my own rights and desires.	A D 1 2 3 4 5
7.	We have enough legally designated wild and scenic rivers in Idaho	A D 1 2 3 4 5
8.	One of the real pleasures of camping and hiking is to hear people (excluding my own camping party) commenting on things they have seen, laughing, and having a good time.	A D 1 2 3 4 5
9.	One of the real pleasures of camping and hiking is to hear members of my own family or camping party commenting on things they have seen, laughing, and having a good time.	A D 1 2 3 4 5
10.	If they can get them there, back country recreationists should be permitted to use rubber inflatable rafts or boats on back country lakes and rivers.	A D 1 2 3 4 5

11.	Water recreation is more enjoyable when done with your friends.	A D	1 2 3 4 5
12.	A view is just as beautiful from a roadside overlook as from a trail deep in a forest.	A D	1 2 3 4 5
13.	Satisfactory recreational activity must be near towns and cities.	A D	1 2 3 4 5
14.	Enough land has been set aside for wildlife protection, and recreation use.	A D	1 2 3 4 5
15.	Meeting a large number of people on a recreational outing makes the trip more rewarding.	A D	1 2 3 4 5
16.	All forms of recreation should be made easily accessible to everyone.	A D	1 2 3 4 5
17.	Historical or archaeological artifacts should be kept by those who find them.	A D	1 2 3 4 5
18.	The government should have complete control and policing powers for all recreational bodies of water to prevent pollution.	A D	1 2 3 4 5
19.	Government regulations concerned with water recreation are for the general good of everyone involved.	A D	1 2 3 4 5
20.	The government should prohibit swimming in areas where the water is heavily polluted.	A D	1 2 3 4 5
21.	Government agencies play an important role in providing water recreation.	A D	1 2 3 4 5
22.	In public decision-making it is appropriate to emphasize the past and present as guides to the future.	A D	1 2 3 4 5
23.	One should be able to water ski on any public body of water.	A D	1 2 3 4 5
24.	Federal government agencies are better able to regulate water related recreation than are state government agencies.	A D	1 2 3 4 5

25.	Water skiing should be permitted whenever sufficient water is available for motors.	A D 1 2 3 4 5
26.	A stream or lake that is free of offensive taste, color, or odor is safe for all forms of recreation.	A D 1 2 3 4 5
27.	Clearcutting is a practice in forestry which should never be used.	A D 1 2 3 4 5
28.	Trees should be managed as if they were a crop to be harvested on a rotating basis.	A D 1 2 3 4 5
29.	Large old trees that are cut and harvested will eventually be replaced by vigorous young trees that will be just as valuable for natural beauty and recreation.	A D 1 2 3 4 5
30.	The forests of the nation are being cut in a manner and at a rate that will harm the environment.	A D 1 2 3 4 5
31.	The users of Idaho's lakes and streams should bear the bulk of the cost for operating these facilities.	A D 1 2 3 4 5
32.	Recreation is acceptable even if it interferes with timber production.	A D 1 2 3 4 5
33.	Trees should never be cut for commercial purposes in or close to areas that have recreational value.	A D 1 2 3 4 5
34.	The best use for mountainous forested land (that has not yet been logged) is to provide spiritual enrichment and enjoyment through natural scenic beauty.	A D 1 2 3 4 5
35.	We have enough area legally designated as wilderness in Idaho.	A D 1 2 3 4 5
36.	There are getting to be so many recreationists that soon a person will have to "hike in" to get a decent place to camp.	A D 1 2 3 4 5
37.	We need to build roads and other accomodations that will open up undeveloped mountain areas so more people can get in and use these areas.	A D 1 2 3 4 5

38.	We have enough National Parks and National Recreation areas.	A D	1 2 3 4 5
39.	There is no difference in the value for recreational purposes between large second-growth trees resulting from reforestation after fire or logging, and the virgin forests that once covered the Pacific Northwest.	A D	1 2 3 4 5
40.	One should not camp just anywhere he pleases in remote back country of wilderness character.	A D	1 2 3 4 5
41.	Charges for camping in state recreational areas are justified as a means of discouraging over use.	A D	1 2 3 4 5
42.	Science is advancing so rapidly that we need not worry about using up our natural resources.	A D	1 2 3 4 5
43.	One should live for today and let tomorrow take care of itself.	A D	1 2 3 4 5
44.	A person should have the right to use his own land in any way he wishes.	A D	1 2 3 4 5
45.	The person who tries to plan very far ahead is bound to be disappointed.	A D	1 2 3 4 5
46.	Land which has high value for other uses should never be used as natural, open or green space.	A D	1 2 3 4 5
47.	Unless we are more cautious in the use of our natural resources, there will be nothing left for our children's children.	A D	1 2 3 4 5
48.	The use of rivers to provide electricity, irrigation, and water for domestic use should be given high priority.	A D	1 2 3 4 5
49.	Preferences of future generations should have equal weight with preferences of the present generation in land use decision-making.	A D	1 2 3 4 5
50.	The primary satisfaction I get out of life is working.	A D	1 2 3 4 5

51.	I feel guilty when I am recreating, because I am not working.	A D 1 2 3 4 5
52.	Most people spend too much time enjoying themselves today.	A D 1 2 3 4 5
53.	All water-based recreation areas should be regulated by public agencies.	A D 1 2 3 4 5
54.	The government should have power to regulate standards at public and privately owned facilities.	A D 1 2 3 4 5
55.	State owned recreational areas should be supported by taxes and thus kept free of charges to users.	A D 1 2 3 4 5
56.	I consider myself very well informed about the Wild and Scenic Rivers Act.	A D 1 2 3 4 5
57.	Charges for use of outdoor recreational facilities should not be made, because this would discriminate against the poor.	A D 1 2 3 4 5

Finally, we would like some information about yourself:

1. What is your age? _____

2. Sex: Male _____ Female _____

3. Please indicate the educational level of yourself and your spouse.

Yourself — High School — College Graduate

1 2 3 4 5 6 7 8 9 10 11 12 | 13 14 15 16 | 17 18 19 20+

Highest degree obtained _____ None _____

Spouse — High School — College Graduate

1 2 3 4 5 6 7 8 9 10 11 12 | 13 14 15 16 | 17 18 19 20+

Highest degree obtained _____ None _____

4. Indicate your occupation. Be specific in terms of what you do in your occupation.

_____

_____

5. Indicate your spouse's occupation. Be specific in terms of what he/she does in his/her occupation.

_____

_____

6. Indicate your total family income before taxes for the year 1973 _____.

7. In what size community did you spend most of your life up to age 18?

_____ Rural Farm

_____ Rural non-farm

_____ 100 to 2499

_____ 2,500 to 9,999

_____ 10,000 to 49,999

_____ 50,000 to 99,999

_____ 100,000 +

8. Are you:

_____ Single

_____ Married

_____ Divorced

_____ Separated

_____ Widowed

9. Indicate the location of your post office _____.

10. List your three most frequent outdoor recreation activities in order of frequency:

1. _____

2. _____

3. _____

11. Please indicate the degree of affiliation with each of the following organizations:

		MEMBER			
		Attendance		Committee	
	Not a member	irregular	regular	Member	Officer
Sierra Club	____	____	____	____	____
Idaho Environmental Council	____	____	____	____	____
Idaho Sportsman Association	____	____	____	____	____
Idaho Wildlife Federation	____	____	____	____	____
Trout Unlimited	____	____	____	____	____
Idaho Water Users Association	____	____	____	____	____
Idaho Association of Guides & Outfitters	____	____	____	____	____
Idaho League of Women Voters	____	____	____	____	____
Idaho Cattlemen's Association	____	____	____	____	____
Idaho Reclamation Association	____	____	____	____	____
Others _____	____	____	____	____	____
Others _____	____	____	____	____	____
Others _____	____	____	____	____	____