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RESOURCE INVENTORY AND EVALUATION
OF POTENTIAL PUBLIC LAW 566
SUB - WATERSHED PROJECTS IN
DES MOINES COUNTY, IOWA, 1970

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DES MOINES COUNTY, IOWA, 1970

Prepared by:
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Burlington, Iowa
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TABLE OF CONTENTS

Page 3	INTRODUCTION - Purpose of Inventory
4	REQUEST BY DISTRICT COMMISSIONERS
5	MAP I, Designated Watersheds According to 1966 UMB Study
6	EXPLANATION OF RESOURCE MAP I, Showing Sub-Watersheds
7.	CHART I - Summary of 1966 UMB, Studies in Sub-Watersheds, D.M., Co.
8.	EXPLANATION OF CHART I
9-17.	CHARTS II - a,b,c,d,e,f,g,h,i, Evaluation of watersheds for multi-purpose uses and benefits - estimated 1970
18.	MAP II - Potential Sites for Recreation Ponds 50 acres and over
19.	EXPLANATION OF CHARTS II a, thru i
20.	CHART III - Summary and comparison of estimated present values and values after treatment
21-22.	CONCLUSIONS - Priority suggestions based upon evaluation

APPENDIX "A"

An appraisal of potential for outdoor recreation developments
in Des Moines County, Iowa, January 1967

RESOURCE INVENTORY AND EVALUATION OF
SUB - WATERSHED STATUS AND PRIORITIES
IN DES MOINES COUNTY, IOWA PL-566

INTRODUCTION:

Upon request by the district commissioners of Des Moines County, this study is undertaken to bring up-to-date the evaluation of sub-watersheds of the county with regard to Public Law 566 Watersheds Act.

It is our purpose to review the information gained by the Conservation Needs Inventory of 1966, as a basis of the study. To these data we have added estimates regarding additional land uses, which were not considered in the earlier inventory.

Conclusions gained from this review are the basis of establishing priorities for organizing sub-watersheds in the county in an orderly progression to get the best job done.

Des Moines County Soil Conservation District

ROOM 218 — FEDERAL BLDG., P.O. BOX 637
BURLINGTON, IOWA 52601 — PHONE 754-8983

July 27, 1970

DISTRICT COMMISSIONERS:

HENRY DOCKENDORFF, Chairman
Danville, Iowa 52623

WILLIAM VIERLING
Mediapolis, Iowa 52637

REX H. TROUTE, Vice Chairman
Rt. 1, Burlington, Iowa 52601

S. S. BARTON
Mediapolis, Iowa 52637

ALBERT SCHULZ
Rt. 3, Burlington, Iowa 52601

ASSISTANT COMMISSIONERS:

HAROLD LINDER, Secretary
Sperry, Iowa 52650

HORACE SUTTON, JR., Treasurer
Box 953, Burlington Iowa 52601

ASSISTED BY:

U. S. Soil Conservation Service
RALPH E. DEWEY
District Conservationist

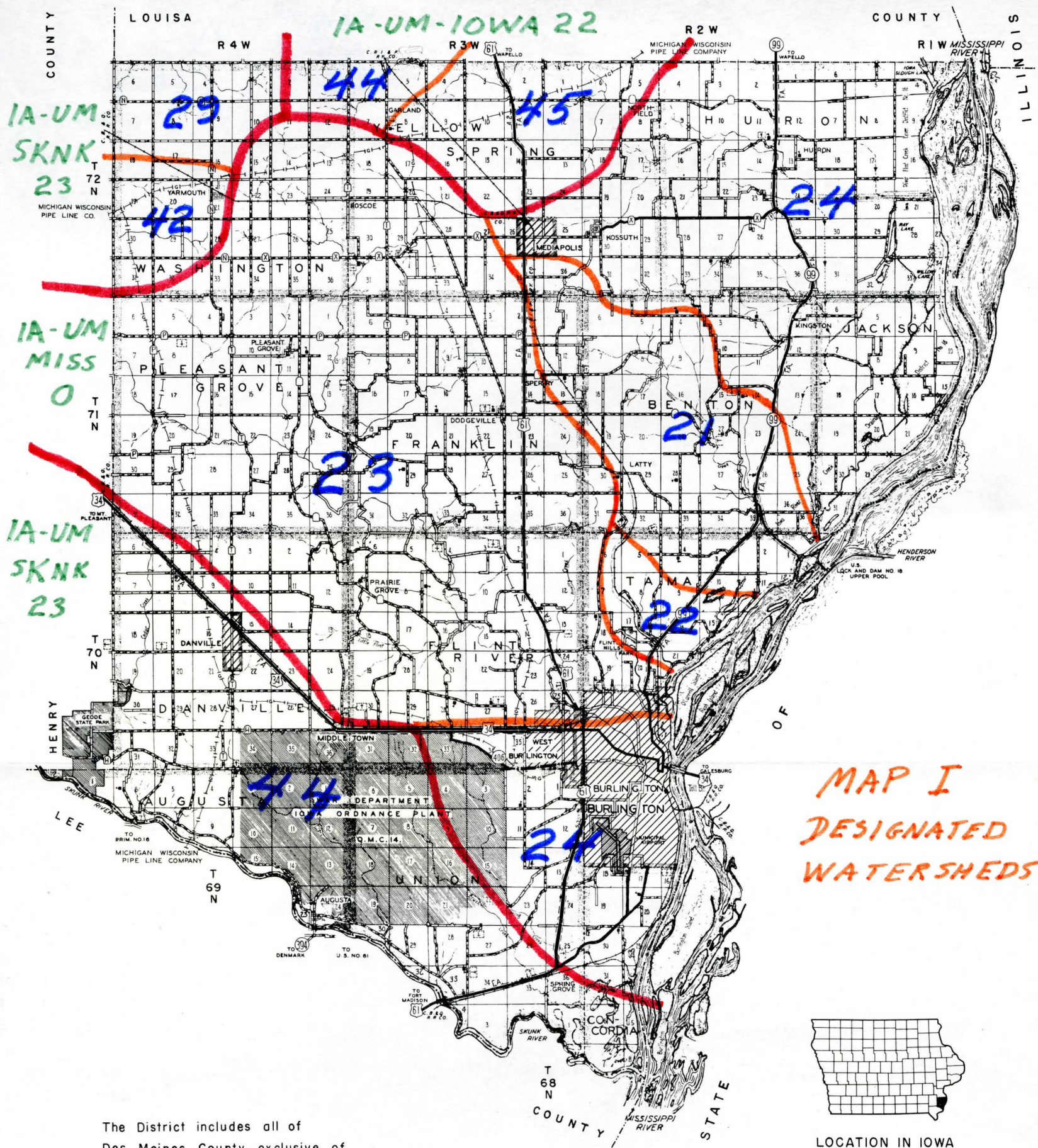
District Conservationist
Soil Conservation Service
Burlington, Iowa

Des Moines County Soil Conservation District requests that you prepare an inventory and evaluation of sub-watersheds within the district which might be feasible to develop under P. L. 566. We would like the information for the purpose of developing a long-range watershed development program, based on priority of need and feasibility.

Sincerely

Des Moines County Soil Conservation District

Henry Dockendorff
Henry Dockendorff, Chairman

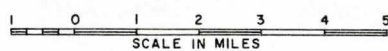


MAP I
DESIGNATED
WATERSHEDS

The District includes all of
Des Moines County exclusive of
incorporated cities and towns.

DES MOINES COUNTY
SOIL CONSERVATION DISTRICT
IOWA

Total acreage approximate 239,303



EXCLUDED AREA

Revised 9-27-60
3-N-12,978

Explanation of Resource Map I showing sub-watershed drainage areas according to 1966 UMB study.

Heavy lines indicate major river basin divisions; that is, Iowa, Skunk and Mississippi. Designations of sub-watersheds are as follows:

IA - UM - IOWA - 22 - 44	HONEY CREEK
IA - UM - IOWA - 22 - 45	PAUL CREEK
IA - UM - MISS - 0 - 21	YELLOW SPRING
IA - UM - MISS - 0 - 22	DRY BRANCH
IA - UM - MISS - 0 - 23	FLINT RIVER
IA - UM - MISS - 0 - 24	HAWKEYE-DOLBEE, Green Bay
IA - UM - SKNK - 23 - 29	CROOKED CREEK
IA - UM - SKNK - 23 - 42	BIG CREEK
IA - UM - SKNK - 23 - 44	LOWER CREEKS

Code interpretation:

IA - UM = The Iowa portion of the Upper Mississippi Basin.

SKNK - 23 = Skunk river basin, 23rd tributary from the source.

- 42 = 42nd sub-watershed of Skunk River below source.

CHART I SUMMARY OF 1966 UMB STUDIES IN SUB-WATERSHEDS, DES MOINES COUNTY

Watershed & Drainage Area	Flood Prevention		Agriculture		Non Agricultural Water				
	Flood water & Sediment damage		Erosion Damage	Water Management		Management			
	Agric.	Urban		acres hav- ing problem	acres need- ing 566	Water Supply	* Recreation	Fish & Wildlife	Water Quality
IA-UM-MISS-0-21 17250	acre 1275		acre 11,000	acre 5000	acre 1800	No	Yes 130,000 **	Yes	Yes Sediment
IA-UM-SKNK-23-42 5500	175		3500	3000	1000	No	No	No	Yes
IA-UM-SKNK-23-29 5760	400		3200	400		No	No	No	Yes
IA-UM-MISS-0-22 5250	320		4000	1700	580	No	Yes 130,000 **	Yes	Yes
IA-UM-MISS-0-23 94720	10,798	90	64,300	19,700	4550	Yes	Yes 130,000 **	Yes	Yes
IA-UM-MISS-0-24 81360	60,680	200	28,300	50,300	43,400	Yes	Yes	Yes	Yes
IA-UM-IOWA-22-44 3970	275		2900	700	300	No	No	No	No
IA-UM-IOWA-22-45 12940	406		9900	1240	60	No	Yes	Yes	Yes
IA-UM-SKNK-23-44 32070	3103	4	9170	8220	2400	Yes	No	Yes	Yes

* Available area for impoundment of lake of 50 acres or larger.

** Population of 130,000 in 50 mile radius.

SUMMARY OF UMB STUDIES 1966

Chart I lists the nine designated watershed areas draining portions of Des Moines County as proposed for the Public Law 566 watershed law.

In 1966 a review was made of these watersheds under the Upper Mississippi Basin Study (UMB). At that time Yellow Spring Watershed IA-UM-MISS-O-21, was the only one wholly within Des Moines County that appeared feasible for planning and construction under the criteria of the study. Skunk River branches 29 and 42, having a minor part of the watershed in the county were also considered feasible.

At that time, Yellow Spring was already organized for watershed planning. It has since been dropped to inactive status because of complications which developed.

CHART II a

HONEY CREEK (Louisa)

WATERSHED DESIGNATION

-- IA-UM- Iowa - 22 - 443970 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 970	3,000	2,500		500	100		650.00
Non-Agricul- tural land								
Industrial								
Recreational								
Housing								

Estimated total value after treatment

Ag land	2,580,500
Recreation	-----
Industrial	-----
Housing	-----
Non-problem	-----
Total	2,580,500

Estimated present value at 550.00 per acre

2,172,500

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION -- IA-UM- Iowa - 22 - 4512940 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 1500	11000	8000	200	4000	200		600.00
Non-Agricultural land								
Industrial								
Recreational	40	200	200			200		600.00
Housing	40	160	100		160	100		1000.00

Estimated total value after treatment

Ag land	7,500,000
Recreation	<u>144,000</u>
Industrial	
Housing	<u>200,000</u>
Total	<u>7,844,000</u>

Estimated present value at 550.00 per acre7,117,000

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION

-- IA-UM- MISS - 0 - 2117,250 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 3000	13,000	9000	1000	5000	1000		500.00
Non-Agricultural land								
Industrial	50	50			50	50		5000.00
Recreational	100	500	400		200	400		800.00
Housing	50	500	300	100	400	300		2000.00

Estimated total value after treatment

Ag land	8,000,000
Recreation	480,000
Industrial	500,000
Housing	1,100,000
Total	10,080,000

Estimated present value at 450.00 per acre7,692,500

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION

-- IA-UM- MISS - 0 - 225,250 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 500	2,000	1,000	100	1,000	100		500.00
Non-Agricultural land								
Industrial								
Recreational	1,500	1,000	800	50		500		1,000.00
Housing	250	1,000	800	50	500	5000		3,000.00

Estimated total value after treatment

Ag land	1,250,000
Recreation	1,500,000
Housing	3,750,000
Total	6,500,000

Estimated present value at 1,000.00 per acre5,250,000

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION -- IA-UM- MISS - 0 - 2394,720 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre Val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 19,300	66,500	56,200	9,500	18,000	5,000	2,000	650.00
Non-Agricultural land								
Industrial		500	100	300	500	500	500	10,000.00
Recreational		4,000	4,000	1,200	1,000	2,500	4,000	1,000.00
Housing		4,000	4,000		1,000	3,500	400	3,000.00

Estimated total value after treatment

Ag. land	55,770,000
Recreation	4,000,000
Industrial	5,000,000
Housing	12,000,000
Total	77,735,000

Estimated present value at 700.00 per acre66,304,000

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION

-- IA-UM- MISS - 0 - 2481,360 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 2,360	67,000	30,000	2,000	40,000	10,000	5,000	600.00
Non-Agricul- tural lands								
Industrial	200	1,800	1,000	1,000	1,000	1,500	1,500	10,000.00
Recreational	200	1,800	1,500	500	500	1,000		1,000.00
Housing	500	7,500	4,000	1,000	3,000	1,000	1,000	3,000.00

Estimated total value after treatment

Ag land	41,616,000
Recreation	2,000,000
Industrial	20,000,000
Housing	24,000,000
Total	107,616,000

Estimated present value at 1,000.00 per acre81,360,000

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION -- IA-UM- SKNK - 23 - 295,760 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)				Est. acre val. after treatment	
			erosion	flooding	drainage	Pollution control		Water critical
Agricultural Land	* 500	5,000	4,000		3,000	500		650.00
Non-Agricul- tural land								
Industrial								
Recreational		100	50			100		600.00
Housing	60	100			80	80		1,000.00

Estimated total value after treatment

Ag land	3,575,000
Recreation	60,000
Housing	160,000
Total	3,795,000

Estimated present value at 550.00 per acre3,168,000

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION

-- IA-UM- SKNK - 23 - 425,500 Acres

Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)		Pollution control	Water critical	Est. acre val. after treatment
			erosion/flooding	drainage			
Agricultural Land	* 340	5,000	4,500	4,000	200		650.00
Non-Agricultural land							
Industrial	10	10			10		1,000.00
Recreational		40	40		20		600.00
Housing	50	50		40	50		1,000.00

Estimated total value after treatment

Ag land	3,471,000
Recreation	21,000
Industrial	20,000
Housing	100,000
Total	3,615,000

Estimated present value at 550.00 per acre3,025,000

* Good agricultural land, and expected to remain that way.

WATERSHED DESIGNATION - IA-UM- SKNK - 23 - 4432,070 Acres

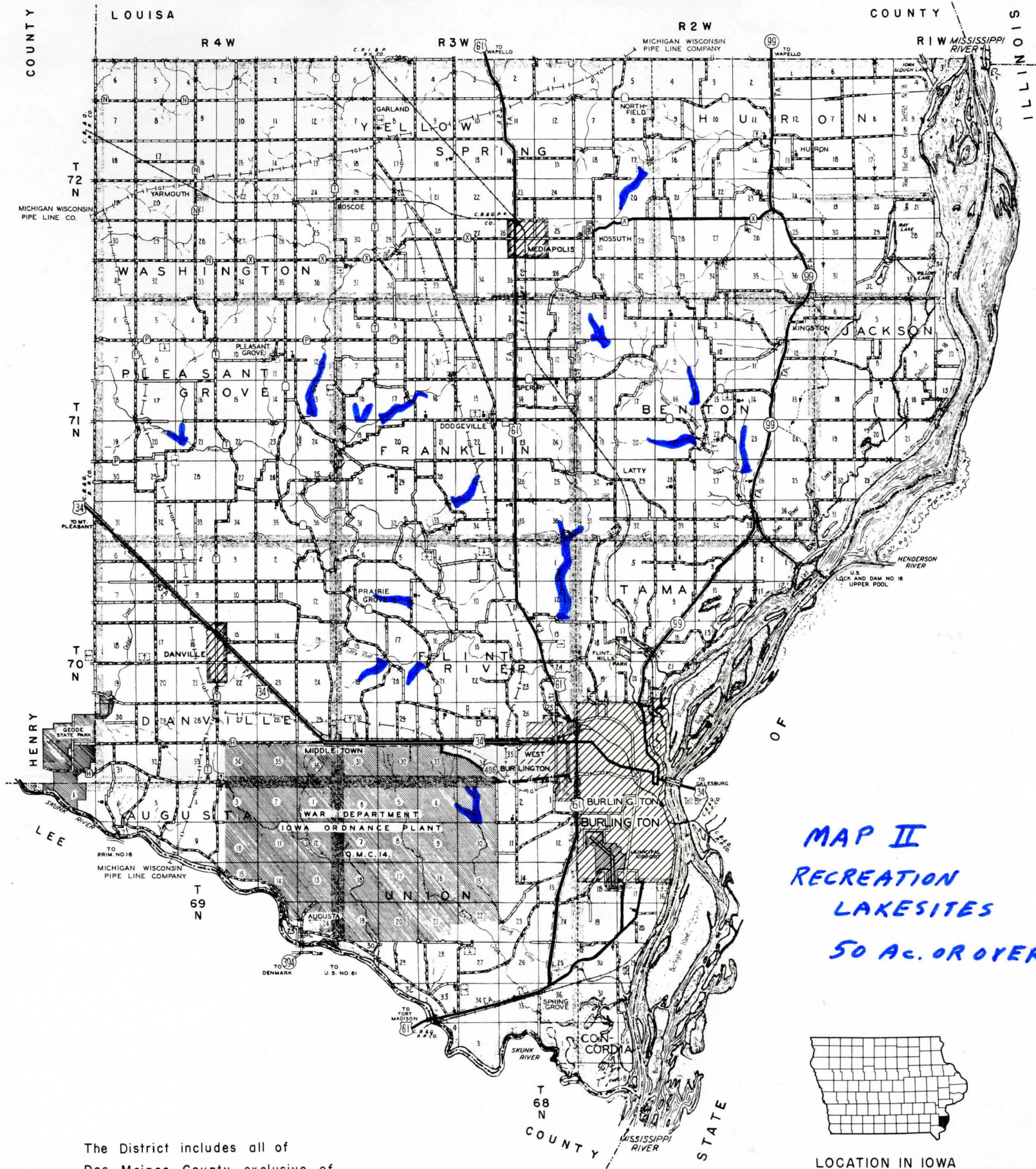
Projected Land Use	Acres with no problems	Acres with problems	Problems (in acres)					Est. acre val. after treatment
			erosion	flooding	drainage	Pollution control	Water critical	
Agricultural Land	* 12,000	8,470	6,000	1,200	2,000	1,000	500	650.00
Non-Agricultural land								
Industrial	6,450	2,999	1,000		1,000	500	100	10,000.00
Recreational	100	50	50	20		50		1,000.00
Housing	700	300	200	10	100	300	100	2,000.00

Estimated total value after treatment

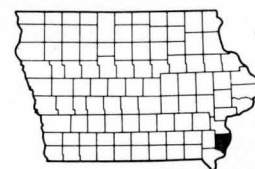
Ag land	<u>14,605,500</u>
Recreation	<u>150,000</u>
Industrial	<u>84,500,000</u>
Housing	<u>2,000,000</u>
Total	<u>101,255,000</u>

Estimated present value at 2,800.00 per acre89,796,000

* Good agricultural land, and expected to remain that way.



MAP II
RECREATION
LAKESITES
50 AC. OR OVER



LOCATION IN IOWA

The District includes all of
Des Moines County exclusive of
incorporated cities and towns.

DES MOINES COUNTY SOIL CONSERVATION DISTRICT IOWA

Total acreage approximate 239,303



EXCLUDED AREA

EXPLANATION OF CHARTS II

In view of additional land use values which have been increasing in recent years, and which were not considered as criteria in 1966, this review will up-date the studies of that time.

Charts II a,b,c,d,e,f,g,h,i, present a summary of considered opinion as of 1970, bringing in additional criteria, such as Pollution control needs, critical water supply, and industrial, Recreational and Housing use potential.

The summary charts indicate that non-agricultural uses of the land present a great source of increased value to the land, if properly treated under a watershed program.

The increased pollution of the Mississippi itself is causing a change to these sub-watersheds for the newer land uses. Recreation and industrial water supplies will cease to exist on the main stem if present trends continue. Industry will be looking inland for potable water supplies. Increased demand for recreation sites will enhance the values of much of Des Moines County. (1)

- (1) See "An appraisal of Potential for Outdoor Recreational Developments in Des Moines County, Iowa" January 1967.

CHART III SUMMARY AND COMPARISON OF ESTIMATED PRESENT VALUE AND VALUE AFTER TREATMENT

Watershed	Number	Acres	Estimated Present Value		Estimated Treated value
			per acre	total	
Honey Creek	IA - 22 - 44	3,970	\$ 550.00	\$ 2,172,500.00	\$ 2,580,500.00
Paul Creek	IA - 22 - 45	12,940	550.00	7,117,000.00	7,844,000.00
Yellow Springs	MISS - 0 - 21	17,250	450.00	7,692,500.00	10,080,000.00
Dry Branch	MISS - 0 - 22	5,250	1,000.00	5,250,000.00	6,500,000.00
Flint River	MISS - 0 - 23	94,720	700.00	66,304,000.00	77,735,000.00
Bottom & Levee Dist.	MISS - 0 - 24	81,360	1,000.00	81,360,000.00	107,616,000.00
Crooked Creek	SKNK - 23 - 29	5,760	550.00	3,168,000.00	3,795,000.00
Big Creek	SKNK - 23 - 42	5,500	550.00	3,025,000.00	3,615,000.00
Skunk Branches	SKNK - 23 - 44	32,070	2,800.00	89,796,000.00	101,255,000.00

CONCLUSIONS:

A. First Priority:

Review of the watersheds in Des Moines County at this time indicates that Flint River watershed, MISS - 0 - 23, should have a high potential for planning and treatment. A high degree of interest is developing in the industrial community to get erosion control established. Factors to be considered are:

1. Control of floodplain flooding near the outlet for security of industrial development.
2. Reduction of silt load, which now requires regular dredging of the Mississippi at the mouth of Flint River.
3. Development of a good supply of potable water to replace or supplement supplies from the Mississippi.
4. Large potential recreation and residential development possibilities in close proximity to urban areas. A minor portion of the upper watershed lies in Henry County.

B. Second Priority:

SKNK - 23 - 44, the lower branches and creeks of Skunk River. These are in relatively rough country. A high residential and recreation potential is present. A major part of the watershed lies in the Iowa Army Ammunition Plant area. This is under relatively good management and control already.

Geode Lake Watershed has also had considerable treatment in an effort to control silt in the state owned lake. A portion of the watershed lies in Henry County.

C. Third Priority:

Dry Branch, MISS - 0 - 22 presents a very similar potential to Flint River. It is close to the urban area with a chance of high degree of residential and recreational development.

D. Fourth Priority:

Yellow Spring, MISS - 0 - 21 is still a highly feasible watershed with considerable potential for recreation development, and moderate potential for residential. Floodplain protection is of high value, and drainage of the floodplain is a major problem.

E. Fifth Priority:

MISS - 0 - 24. The south section presents complex urban problems. Land protected will be mainly residential and industrial. Problems will be so oriented.

Northern section is more remote from urban area. Rough parts will need management for pasture and timber uses as well as recreation. Protects a large bottomland agricultural area.

F. Sixth Priority:

IOWA - 22 - 44 and 45 and SKNK - 23 - 29 and 42 are extreme upland areas of watershed shared with Louisa, Henry and Washington counties. Much of the area is purely agricultural. Control will be mainly individual and small group projects with relatively little impoundment potential.

An Appraisal of Potential for
Outdoor Recreational Developments
in Des Moines County, Iowa

January 1967

Credits:

Glenn Thompson - ISU
Howard Hughes - Iowa SCS
John Welter - County Conservation Board
Jim Judas - State Conservation Officer
Deane Thornton - County ASC
Jim Hodges - County Extension
John Baker - Des Moines County SCD

PREFACE

The following report has been compiled as a result of appraising the potential for twelve outdoor recreational developments in the Des Moines County Soil Conservation District, Iowa. This follows an inventory of the existing recreation developments, public and private, made in 1965.

The information contained herein will be of help to groups and individuals in pointing out the potential for certain types of recreational enterprises and areas in the county. Further, it may serve as a guide in evaluating the recreational possibilities for developing specific locations within the county. However, this report considers the county as a unit, and no attempt has been made to appraise individual sites for recreational development.

This report was made possible through the cooperating efforts of many organizations and agencies. Special appreciation is given to: Howard Hughes, Assistant State Conservationist SCS, Glenn Thompson, Recreation Specialist, ISU, Arthur Corman, Chairman of Des Moines County SCD, John Walter, Executive Officer of the County Conservation Board, James Judas, State Conservation Officer, Rex Emerspm. Area Supervisor State Conservation Commission, Dewayne Schafer, Extension Service, John Baker, SCS and V. Deane Thornton, ASC, all of Des Moines County.

Appreciation is expressed to all others who have helped in the compilation of this report.

-1-
INTRODUCTION

Appraising the potentials for outdoor recreation is an essential step in planning to meet recreational needs. Opportunities for further development of resources for recreational uses in Des Moines County were recently examined with the goal of stimulating county wide growth. This appraisal involved a consideration of more than natural resources since development potential also depends upon people and facilities necessary for development.

The potential for twelve kinds of recreational developments were examined separately. Each had different criteria for evaluation depending upon the requirements of the activities involved. The objective -- to make these appraisals without long and costly surveys -- was achieved by a group familiar with the county and with the requirements of the different recreational developments. Information was obtained from various public and private sources.

The end result of this appraisal process is a group of conclusions regarding the potentials for future development of the important kinds of recreation areas and enterprises. In addition to the general purpose of providing information needed for effective development of natural resources for outdoor recreation these appraisals have other uses, including:

Improving the Long-range Program of the Des Moines County Soil Conservation District;

Information for publicizing and promoting outdoor recreation in the county;

Information useful for local planning by county and township governments, planning commissions, water boards, civic groups, and promotion agencies;

Information for developing regional and State outdoor recreation plans;

Identification of specific project proposals for public recreation areas;

Serve as guidelines to more efficient and profitable use of certain natural resources and thereby improve the economic status of individual landowners and the community;

Help meet the increasing demand of the American and Canadian peoples for wholesome outdoor recreation.

-1-
INTRODUCTION

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Information for publicizing and promoting outdoor recreation in the county;

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Information for developing regional and State outdoor recreation plans;

Identification of specific project proposals for public recreation areas;

Serve as guidelines to more efficient and profitable use of certain natural resources and thereby improve the economic status of individual landowners and the community;

Help meet the increasing demand of the American and Canadian peoples for wholesome outdoor recreation.

APPRAISING POTENTIALS FOR TWELVE TYPES OF RECREATIONAL DEVELOPMENTS

Twelve types of outdoor recreational developments were studied and analyzed for Des Moines County. Each is discussed in the following portion of this report.

1. Vacation Cabins, Cottages, & Homesites

Vacation Cabins, Cottages, and Homesites represent rural living space close to various recreation activities. This includes living quarters developed to rent to clients, vacation homes built to sell, and organized group "camps" that use permanent buildings. Various recreation activities may be available on the premises. Still other activities may be available in the vicinity on other developed areas, public and private.

The recreational potential for Vacation Cabins, Cottages, and Homesites for Des Moines County is high with a score of 101 out of a possible 150. That is, the evaluation of this potential shows it to be high and worthy of future development.

Climate as an element applied here, relates to its desirability for summer vacationing purposes. It was judged in relation to the climate in surrounding areas, especially in cities and towns where the potential clientele are expected to come from, such as: Fairfield, Mt. Pleasant, Keokuk, Ft. Madison, Burlington, Davenport, Cedar Rapids, Ottumwa, Des Moines and Iowa City all in Iowa. From Illinois, there is Peoria, Rock Island and Galesburg. Favorable aspects of Des Moines County climate considered for vacationing are:

Five months or more of temperatures in the 60's or higher providing a long season. No excessive periods of inclement weather during this same five months. Summer rainfall, temperature and humidity is no worse, if not substantially better than the surrounding cities.

Scenery relates to the combination of land formations, water and vegetation in the county which are more attractive or differently attractive than those in the client zone up to a days drive away.

The inventory of scenic areas provided a guide in judging this element. The prevalence of superb attractions, such as the Mississippi River, the Islands and their beaches on the river, the Topography of the River bluff areas, Geode Lake and the rugged land surrounding it and the developed areas along the Skunk River, contribute to Des Moines County's high rating. The lack of existing resorts, group camps, and vacation rental cottages is indicative of the undeveloped potential of the area.

Interesting Natural Areas are part of the drawing power of a locality for vacationing customers. Developed natural areas in Des Moines County include: Geode Lake and park, Flint Hills Golf course, Chautauqua Park, Stony Hollow Drive, Skunk River access areas, Snake Alley, Jim Town, Mosquito Park, Mississippi River access areas, Crapo and Dankwardt Park, L-Kee-ta Scout Camp, and two marinas on the Mississippi River. The undeveloped areas

include: the River Islands, several gun clubs and overflow land along the Rivers.

Soil Characteristics, such as depth, permeability, texture, and slope were considered because of their effect on the potential for vacation cabins, cottages, and homesites. Some of the soils in the county are limited as far as installation of waste and sewage disposal systems or for the development of adequate water supplies. Further, some soils would limit the construction of building foundations. In general, however, most undesirable soil characteristics found at certain locations could be compensated for and would not be a prohibitive factor in the development of the area.

Des Moines County maintain attraction for vacationers would be the availability of water areas. The Mississippi River, its many islands and interconnecting water ways, Geode Lake and the Skunk River are the major areas.

Des Moines County also has a number of good water impounding sites. Some preliminary surveys have already been taken on some of these sites for possible development. The County Conservation Board has developed plans for a hundred acre lake in the county.

Access roads in Des Moines County rates only average. While passable roads exist to nearly all areas of reasonable potential, the roads are not well marked and are not, in most cases, hard surface roads.

II. CAMPING GROUNDS

Three different types of camping areas and enterprises are recognized since there is considerable variation in the key elements that apply. These are: Vacation site camping grounds -- where the camper frequently stays several days to several weeks; pack trips -- involves an extensive area of rivers, streams, and lake shoreline; transient camping grounds -- where the camper stops over night while traveling to a vacation site. Sometimes a succession of stops at transient sites makes up a camping vacation.

The potential for vacation site camp grounds in Des Moines County is medium with a score of 69. The lack of waterfront land available for camp sites restricts this enterprise. The one unique aspect of Des Moines County is the camping available on the Mississippi River Islands. There are no developed camping areas but the natural beauty, sand beaches and abundance of water attract the more handy camper. The location of the island restricts these areas to boat owners. Potential score was 120.

Pack trips rated in the low medium area with score of 49 out of a possible 100 primarily due to the lack of adequate trails and extensive areas suited to pack trips.

Transient Camping Grounds rated even lower with a score of 39 out of a possible 90. This was due primarily to the lack of high quality access roads. Another factor is the fact that Interstate 80 runs east and west across the state about 75 miles north of this county. These people traveling across country tend to stay on or close to these super highways.

Climate is very important in camping grounds potential, particularly

vacation site and pack trip types. The cooler areas are favored during the summer months. Since vacation camping is predominately a family activity, the cool summer areas have the greater opportunity. The source of clientele for camping is a wide area, larger than that for vacation Cabins, Cottages, & Homesites, although the popularity of short weekend camping trips is increasing. Pleasantly warm days with warm nights are predominate in Des Moines County allowing camping with the minimum of equipment. This favorable climate spans approximately 5 months. The temperatures are above sixty degrees from May through September.

Scenery exceeds climate as an attraction for campers. The Mississippi River, the Bluff areas and the rough natural beauty of the land along the Skunk River afford large areas of natural beauty.

Natural areas of average or above average rating are to be found. The Burlington City Parks and the undeveloped Mississippi Islands are the more important examples.

Soils for these types of enterprises are not a limiting factor in Des Moines County, although in several sections the problems of drainage may limit the construction of sewage disposal systems. In a few instances water may not be readily accessible.

Existing Water Areas are closely associated with the development of vacation site camping areas. Lakes, and rivers are commonly chosen as locations for both public parks and private camping grounds. No great effort has been made to develop desirable locations on existing waters. What effort that has been made to develop camping grounds has been made by State and local governments to help fill the need.

Water Impoundment Sites offer some potential for both vacation site and transient camping. These are mainly opportunities for private development.

The inventory of impoundment sites identified several large impoundment sites that would be suitable for camping areas with swimming, boating and fishing.

Tourist route highways are vital for transient camping potential. Des Moines County rates rather low in this area because of the location of Interstate 80 two counties to the north.

Access roads are also a limiting factor in Des Moines County. Accessroads are available but they are not adequate.

III. PICNIC AND FIELD SPORTS AREAS

These are basically areas developed for concentrated play activities, other than golf, water sports and winter sports. Some areas combine field and water sports, by generally an area is developed around one or the other group. Competitive games using ball diamonds, courts, tracks, and the like are one type of development. Others include the shooting sports with ranges for rifle, shotgun, pistol, and archery. Many areas may have special facilities for small children. There are a few highly specialized types, including tracks for power vehicles such as slot races and "go-carts".

Two activities included here require separate consideration from the rest although frequently associated with them. They are bicycling and picnicking. Requirements are different and key elements vary somewhat.

Bicycling, as an enterprise, may consist only of a headquarters where equipment is rented, sold, stored, and repaired. It may also include areas developed with bicycling paths or trails. At present only limited bicycling enterprises exist in Des Moines County. Several oil stations rent bicycles and small motor bikes.

The people renting these bikes use the city streets and the city parks. Cycling paths may be in public forests or parks and often public secondary highways are used. Bicycling is more resource - oriented than most field sports although the enterprise location may not be. It could be operated as a concession on a public recreation area.

Picnicking is also more resource - oriented than field games. Frequently, picnicking areas are located in association with either field game areas or water sports areas. While most picnicking takes place on public areas - parks, forests, and roadside rests, lake or river vistas, etc., -- private picnicking facilities are of growing significance. This opportunity is enhanced by the provisions of special services to groups, such as barbecues. The potential for picnicking and play areas in Des Moines County is medium with scores of 74 and 46 respectively. The score for bicycling is low (score 39). All three potentials will be reinforced by prospective increases in the vacationing (non-resident) population. The cycling potential is largely undeveloped to date, but has possibilities along the rivers, secondary roads, river bluff areas and around the proposed county lake. Lake Odessa and the Skunk River access areas offer areas of high potential.

Climate locally affects all of these activities. Picnicking and bicycling may be done during the late spring to the early fall months in the country and some field sports over a somewhat longer period.

Scenery has considerable significance for bicycling and picnicking. Commonly pleasant scenery - nice woods, some water, a somewhat varied topography, attractive vistas - as compared with the cityscape all provide a desirable environment for these activities in the country.

Soils in the county have little limiting effect on the potentials for field sports areas. Those areas in the county having soils unsuited for water impoundment, are normally associated with natural waters, such as the Rivers.

The steep roads in the river bluff areas may limit the potential for bicycling in the bluffs themselves.

Existing Water Areas in the county have particular significance for picnicking sites because of scenic values and activity opportunities.

Water Impoundment Sites hold considerable potential for developing new picnicking areas. The new proposed county lake area and the larger farm ponds offer areas of future development.

The Population of the county and of adjacent counties with its urban areas was a major key element in determining potential for picnic and field sport areas. The relatively slow rate of predicted population growth gives us

less than a high rating.

Age Distribution of the population influences the potential for all field sports areas except picnicking. The key group is that from 15 to 29 years old. Nationally, the 1960 proportion of this group to the total population is 20%. Locally it was 17.3%.

Income Level has an influence on potential for field sports areas, particularly those related to private areas for competitive games, target sports, etc. Local median family income in 1960 was \$5733.

Proximity to cities is a vital key element for this kind of enterprise. Population centers one hours travel in and out of the county bring the possibility of picnicking and field sports to all parts of the county. Des Moines County lacks somewhat in total access roads. While roads exist in all parts of the county they are not rated as excellent in many cases.

IV. FISHING WATERS

Fishing waters as recreation areas include any type of water area with significant opportunities for catching fish by sport fishing methods. The fishing waters enterprise may include ownership, management, and control of the waters, plus services, or it may be limited to furnishing access and services at public waters.

While there are many variations according to the species of fish involved, the major division is between warm water and cold water fishing.

Fishing water potentials are heavily dependent upon existent or developable waters and fishery management. All other elements are much less important.

With the Mississippi River, the Skunk River and many farm ponds in Des Moines County the rating for warm water species is very high, with a score of 83. The large area of warm water for warm water species in Des Moines County is well known for its excellent fishing along and in the Mississippi River, the Skunk River and its various farm ponds throughout the area. Possible score 100.

The effect of climate in determining whether waters are suitable for warm or cold water fish species is covered under the next three elements. Climate also affects fishing waters potential in other ways. Seasons suitable for fishing depend upon climate. Nearly year round fishing exists for the warm water species in this area.

Existing water areas have a high potential for fishing in this county. Most of the waters have fishable populations.

The fact that it is feasible for the development of many deep ponds for expanding fishing waters in this area, these sites hold potential for warm water fishing, depending upon water source and construction.

Knowledge of the species of fish well-adapted in the area is very important when evaluating potential for increasing fishing waters enterprise. The area abounds with popular sport fishes, such as catfish, large and small mouth bass, blue gills, walleyes, and other pan fishing; also various rough fish such as

carp, buffalo and sheepshead or perch.

The size and distribution of the human population is a factor in evaluating growth potential for warm water fishing. Most fishing is based on local clientele; however, fishermen come to Des Moines County from distances up to 150 miles outside the county.

Proximity to the population center of the county and nearby areas affects the development potential for fishing waters enterprise. This element is measured along the network of highways. A guide for warm water fishing potential is the extent to which warm waters -- existing and potential -- lie within 150 miles from cities.

Although this area has no cold water fishing it has high potential for warm water fishing in existing rivers and farm ponds throughout the county.

V. GOLF COURSES

Golfing activities are in two categories: First, standard golfing with courses of 9 or 18 holes and the newly popular par-3 type; second, driving ranges and miniature golfing. Standard and par-3 golfing have substantial resource requirements. However, these requirements are not exceptional and are flexible enough so that they can be met in most local areas. On the other hand golf driving ranges and miniature golfing enterprises are primarily user - oriented and have minimal resource demands. Thus, the key elements for golfing are largely related to population and location.

The potential for standard and par - 3 golfing in Des Moines County is medium with a score of 72. The topography and soils of Des Moines County are well suited for golf courses. The two existing golf courses in the county do not provide all the golfing facilities needed in the county. The one 18 hole Country Club Course and the 18 hole public course make up the two courses in the county. The potential in the future depend on existing need in the main plus the increase in population and in the added leisure time of present workers.

Scenery has some significance for standard golf courses and for par-3 courses. However, this requirement for pleasant surroundings for golfing is easily met with open space and native vegetation that provides contrast in appearance and quietness compared to city streets.

Soils suitable for golfing must be well-drained or easily drainable. Preferably (land use class I, II, III and small amounts of class IV and VI - Soil Conservation Service) and, preferably, not excessively droughty. Excessive stoniness and steepness are also undesirable.

Size and distribution of population is extremely important in appraising potential for growth in golfing areas. The population in urban centers in the area equals about 60,000 providing only a fair rating.

Age and occupation of the population is important in golfing. Since golfing is predominately an activity of those beyond their youth years, the age group from 30 years up is the key. This group in 1960 was 49 percent of the national population while locally it was 53 percent. The proportion of "professional" people locally in 1960 was 16 percent compared with the

Income Level is as important an influence in golfing potentials as for any activity. The median family income in 1960 was \$5733.

Proximity to cities is a vital key element in golfing. Des Moines County has one urban center of over 30,000, namely Burlington.

VI. HUNTING AREAS

Most rural lands have value for some kind of wildlife. However, the potentials for quality hunting on private and public lands high enough to significantly affect the recreation program and the local economy are much more limited. Quality hunting refers to hunting which provides a substantial quantity of game with sufficient land available for hunting. The appraisal of recreation potential discussed in this section is restricted to this quality hunting.

The hunting areas recreation category for purpose of this evaluation is divided into three subdivisions: Small game, big game, and waterfowl. The key elements affecting these divisions are substantially different and thus will be considered separately. Small game includes both birds and mammals. Quail composes the game birds. Cottontail rabbits, squirrels, racoons, foxes, and other small fourfooted animals are classed as small game mammals. Big game consists only of deer in Des Moines County. Waterfowl includes ducks, geese, and shorebirds.

Recreational hunting areas are areas of land and water, public or private where wild game is produced by habitat manipulation through farming, forestry or game management methods. Small game is predominately produced and harvested on private lands. Big game is produced and harvested on both private and public lands. Waterfowl are produced and harvested on both private and public lands and waters.

Hunting is regulated by State laws for sedentary species and by Federal and State laws for migratory species such as waterfowls. Hence, the potential for private development of hunting areas is influenced by these regulatory measures as well as by the elements considered below. The limiting effect of current game laws on this potential has been taken into consideration.

Des Moines County furnishes substantial opportunity for all three types of hunting. Waterfowl hunting has the best potential with a score of 95, which is a high rating - based on the Mississippi River flyway in the southern portion of the county. Also, that part of the county has abundant lands, not now waterfowl habitat, that could be developed by water control and management. However, a substantial amount of the existing habitat is threatened by other competing recreational areas.

Small game centers around the cottontail rabbit, squirrel and quail with a possibility of future pheasant hunting, depending on the State Stocking Program. The potential for this hunting is in the high range, with a score of 99.

Prospective land use changes and management opportunities could improve the status of small game species. However, the opportunity to increase the

hunting participation will depend, to some degree, on stimulation of wider interest among hunters in the types of game involved.

Big game hunting in Des Moines County is limited to white-tailed deer. The potential is high, with a score of 91, based on a good habitat, which is likely to deteriorate as changes occur. The best habitat is now mainly in the southern two-thirds of the county.

Climate affects the usefulness of an area for hunting since it either facilitates or impedes the hunters' mobility and comfort. It also affects the degree of activity of the game. The influence of climate on productivity and mortality of game is covered under "Wildlife Habitat" and "Wildlife Populations" below. Climate is generally not a restricting element on the three types of hunting.

Soils have specific correlations with the productivity potential of areas for particular species of wildlife. Soils, habitat, and wildlife populations are interrelated. The quality and quantity of habitat is a reflection of land use which, in turn, reflects soil conditions. Soil conditions throughout Des Moines County are not a limiting factor. It has a high potential for development.

Wildlife habitat is the basic element that determines potential for hunting areas. As here used, it includes the influence of climate on productivity and mortality, existing and potential, and includes water areas. Analysis of this element was made for each species of huntable wildlife for the county. These individual analysis were then combined for the three types of game -- small, big and waterfowl.

It is important that the habitat element not be confused with the wildlife populations element. The existence of good populations is evidence of good habitat, but the reverse is not necessarily true.

Wildlife populations were considered as a separate element from habitat even though the two are closely related. Where other factors, such as man's poaching, have not interfered seriously wildlife populations reflect habitat quality. Where an important factor other than habitat limits the population, the ratings for habitat and population were different. A combination of the two reflect the present value of habitat. As with habitat, the analysis of population was done for individual species.

The size and distribution of the human population is the most important of the non-resource elements affecting hunting areas potential and is significant for all three game types. For small game, the population considered was that of the local area. For big game and waterfowl Des Moines County plus an area extending outward to include urban areas up to 150 miles away was used.

The income level of the local human population and closer urban centers is of importance in appraising waterfowl hunting potentials. Since good waterfowl hunting demands a relatively high price, it is to some extent related to hunters' income.

Proximity of cities is a significant element only for small game hunting

areas. Almost all of Des Moines County is within one hours drive from Burlington, a city of more than 30,000 people.

The pattern of rural ownership is an important element in appraising potential for small game and deer hunting areas. Public agency ownership, corporate ownership, and ownership in large private farms (over 180 acres) are favorable for facilitating hunting. Private estates, suburban developments, small rural home units of urban workers and small farms are not as favorable. This criterion is based on the ease of making the hunting areas available to the public on either a free access or fee access basis. 99% of the land in Des Moines County is privately owned and 1% is publicly owned. In Des Moines County a large percent of the land is favorable for facilitating hunting.

VII. NATURAL, SCENIC & HISTORIC AREAS

Natural areas and scenic areas have much in common. Most natural areas of significance have attractive scenery. Many highly scenic areas have natural areas included. Nevertheless, the two concepts are quite different. Natural areas are valued for their esthetic, scenic, wild and undisturbed character. Scenic areas are valued for their beauty. Both natural and scenic areas were inventoried specifically for the county. Their potential for increased use was appraised. The amount of new servicing facilities that would be needed to accommodate the increases in use were considered. Some of these areas are not yet used appreciably, therefore, estimates were made on the basis of increased local recreation participation in relation to the present level.

Historic areas are sites of past events that are of sufficient interest to attract people seeking to learn and observe the background of their heritage. They range from a monument erected to the First Territorial Government in Iowa in the years 1839 to 1841, when it was moved to Iowa City; Snake Alley, which is the crookedest street in the world and was publicized by Ripley in "Believe it or Not", to Civil War Veterans, one who is buried in Kossuth Cemetery in Mediapolis and the other one at Round Prairie in Huron Township. Access to these historical sites and monuments are made available to the public but are not well publicized.

The existing undeveloped natural areas of Des Moines County have a medium potential with a score of 75 due partly to the moderate amount of scenery associated with them. Likewise the undeveloped scenic areas received a medium potential with a score of 51 due to some limitations in the natural areas in conjunction with them. However, with the abundance of historic places in the county, the historic areas potential was high, score being 100. Possible score: 150, 150, 100.

Attractive scenery is very important in appraising many kinds of natural areas but not for all. Scenic areas, such as Black Hawk Overlook in Crapo Park or Mosquito Park overlooking the Mississippi River are important to the recreation potential of Des Moines County but the 17 Indian Mounds that overlook the vast bottom land of the Mississippi River Valley would be

very attractive for public recreation.

Natural areas in the county were rated both as to their natural qualities and their contribution to scenic areas. Although the county does not have true wilderness-type natural areas, it does have relatively wild wilderness areas suitable for hiking, boating, canoeing, nature trails, etc. The criteria used for rating was whether or not such areas had the characteristics to attract people to use them, either as public or private operations. Some other types of areas include such as Black Hawk area south of Burlington and the vast Mississippi River with its islands for recreational purposes and also the inland waters of Skunk River and Lake Geode. Most of these areas in Des Moines County present an opportunity for public sector development.

Natural area characteristics can contribute greatly to the value of scenic areas. Hills and forests unspoiled by roads, mining and over-cutting add materially to the scenic values. Likewise, interesting vegetation, animal life and geologic formations in their untouched and uninhibited states add much to the scenery. Wildlife habitat as an element becomes a part of the natural area in this context.

The historic areas of the county were inventoried. Many of the sites such as Black Hawk Overlook have been fully developed but not publicized to their advantage. Some other historical sites such as the 17 Indian Mounds have not been fully developed to their full potential.

Wildlife populations are frequently a particular and attractive part of a natural area and often deserve special attention. Huge flocks of wild ducks in the Spring and Fall in Des Moines County are an example. Wildlife need not be rare or unusual to have great attraction. The common birds in their natural surroundings are a fascinating part of many natural areas in the county.

The size and distribution of the human population is important to all three kinds of areas in this group. It is more apt to be of greater significance for scenic areas than for the other two. The local population and nearby urban centers was used as the basis for this rating.

Proximity to cities affects the potential for use of natural, scenic and historic areas. The six urban centers within 150 miles were considered in arriving at the rating.

Tourist routes affect the potential for development of all three kinds of areas and especially where the areas are of a quality to attract more than local trade. Des Moines County is traversed by approximately 60 miles of tourist routes.

VIII. RIDING STABLES

Horseback riding may be part of a recreation enterprise of a broader sort -- such as a vacation farm -- or it may be the sole activity of an enterprise. This may include the area where the riding is done or merely provide the services that enables riders to make use of a public area. Whether riding is on public or private land, it is closely resource-oriented, particularly to natural areas.

Potential for development of riding stables is medium with a score of 61. Rather poor proximity to large urban population centers to increase the vacationing nonresident population decreases the potential in the near future. Present development is centered almost entirely in the Burlington area.

Climate has influence on potential for horseback riding and is generally limited to the months of April through October due to cold winter months.

Natural areas are important for horseback riding and, like hiking and bicycling, is one of the reasons for getting away from the city environment to quiet attractive surroundings. Areas for bridle paths or trails need not be large nor do they require extensive financial development. Limited woodlands and pasturelands are available in most areas of the county.

Size and distribution of the human population is a very important element. This involves consideration of not only the location of urban centers, but also of concentration points of vacationing people. Thus, the potential for riding stables is relatively low in Des Moines County due to the small numbers of people visiting state and private parks for any length of time. Also noted is the complete lack of resort areas which greatly enhance the potential for such enterprises.

Age levels of the population also influence the potential for riding stables. The class 15-44 in the local area was considered as the key group and rated extremely low in Des Moines County.

Since horseback riding is relatively expensive pastime, income level is an important element in the potential for development of stables. The local median family income was used in judging the potential which is above average for this area of the state.

Proximity to cities is a vital key element for riding stables. In this respect, it is noted that no large cities are within 20 miles of the county.

IX. SHOOTING PRESERVES

Shooting of stocked, domestic game under conditions simulating natural hunting has been done in parts of the U. S. for several decades. Some of these shooting "preserves" have been club arrangements and some commercial. However, the interest in this type of recreation has grown rapidly since World War II and its potential lies in the future.

Almost all of the game used on shooting preserves is of four species -- ring-necked pheasant, bobwhite quail, chukar partridge and mallard duck.

The operation is a combination of two or three activities: Farming the land to grow crops and control vegetation; raising game (or purchasing it from a game farm); raising, training, and handling hunting dogs. It is, therefore, a complicated and demanding kind of enterprise.

The potential for shooting preserves is medium with a score of 79. This includes the high rating which may need an adjustment since other nearby areas to the north and west have more favorable proximity to population centers than

Des Moines County. The climate element is not a limited condition because of the mild weather. The normal winter weather conditions allow hunting for practically the entire seven-months' hunting period.

Climate has a general influence on the suitability of areas for shooting preserves. Since the shooting activities are limited to the fall and winter months, it becomes an important factor. Due to the mild temperatures here, weather conditions allow hunting practically the seven-month's hunting period. The primary source of clientele is from the north and west and hence the northwestern part of the county is more favorable for such enterprise. Probably a "low medium" is a proper appraisal. Possible score 100. Climate is not a limiting factor in this area.

Scenery has some influence on the potential for shooting preserves. Shooting is more enjoyable in pleasant surroundings. A gently, rolling topography, not flat, but not steep, with a mixture of crop fields, grass, hedges, ponds, and woods is more suitable. Completely open farm lands and extensive wooded areas detract from the potential.

Soils are very important for successful shooting preserves. Productive agricultural soils suitable for efficient growth of grains and grass crops are needed. Use by shooters is easiest on soils that are well-drained and easily traversed. Thus, soils are considered as a limiting factor for shooting preserves in Des Moines County.

Population size and distribution is critical in appraising potential for this type of enterprise. It is the urban population that counts. The urban centers to the north and west such as Linn, Polk and Johnson Counties were used as indicators.

Age and occupation of the population also have significance for shooting preserve potential. The age group from 30 up was used as the age indicator and the proportion of professional people as that for occupation.

The local median family income was not a relative factor.

Proximity to cities is also very important in this enterprise. Most parts of Des Moines County are reachable from several selected urban centers within a 150 mile area.

X. VACATION FARMS

A vacation farm may offer home-cooked meals and country living and light house-keeping facilities, rented on a weekly basis, for urban people. Special consideration should be given to children from urban areas during school vacations in the summer months.

A vacation farm is heavily resource-oriented and often places emphasis on the variety of farming activities which are seasonal by nature. It is strictly rural in its "atmosphere." Other recreation activities may be included or available such as fishing, horseback riding and games.

Potential for Vacation Farm enterprises in Des Moines County is medium with an 82 score out of a possible 140.

Climate during the summer vacation period in Des Moines County would tend to be uncomfortable to adults due to the generally high summer temperatures and humidity but should not particularly affect students. The climate would be similiar throughout the midwest area.

Scenery is important in evaluating potentials for this enterprise. Attractive surroundings are beneficial and desirable as with climate; this is a relative matter. The scenery needs to be very attractive in relation to that where the clientele come from. Des Moines County offers a variety of scenery equal to or greater than any other area within a 100 mile radius.

Natural areas are an important element in the evaluation of vacation farms. They do not have to be on the property but must be nearby and are a part of the drawing power of an area. The inventory of natural areas in the county are not of significance for vacation farms.

Soils have significance for vacation farms as an appraisal element. Des Moines County soils vary in type but are generally suited to this type of enterprise. Some soils may be restricting from the standpoint of increasing sewage disposal capacity but are limited and not generally in an area suitable for vacation farms.

Existing water areas enhance the possibilities for developing adjacent farm lands for vacation purposes. The primary water areas in the county, along with smaller streams, the many ponds on farms and near future developments are of special significance in Des Moines County.

Water impoundment sites can be as important as existing waters in developing this potential. In addition to those inventoried, many farms have sites to build ponds.

Proximity to cities of vacation farm areas is significant just as it is for vacation cabins, cottages and homesites. All distant urban centers were included but main emphasis was given to those within 150 miles. In the near future consideration should be given to urban centers more distant as transportation time decreases.

Rural ownership and land use patterns have a strong influence on the potential for vacation farms. A favorable pattern for potential vacation farms is a long-stabilized ownership of family type farms of medium size, 100-259 acres, with general farming, livestock or dairy enterprises. These often have large and quite old farm homes.

A limited number of the 1183 farms in the county meet these guidelines and many are in the 100-259 acre size group, however, there is a definite trend to grain farming and a decrease in the dairy, livestock or general farms.

XI. WATER SPORTS AREAS

Acres of land and water devoted primarily to swimming, sun bathing, boating and water skiing are among the most popular for outdoor recreation today. Prospective increase of demand is high and the need for appraising future growth potential is especially important. It should be noted that enterprises using land and water primarily for fishing are covered under "Fishing Waters," but many of the Water Sports Areas may include fishing services. Likewise, picnicking and camping facilities are frequently associated with water sports areas. The distinction is whether picnicking, camping, etc., are incidental to water activities or water activities incidental to the others. Here the water activities are considered primary.

Water sports areas are, obviously, heavily dependent upon existing and potential waters.

The proximity to cities and abundance of lakes, streams and related shorelines greatly contribute to a score for this type of development of 89 of a possible 110.

Climate may limit the seasonal use of waters and to cold regions render waters unsuited for swimming. Most local waters are warm enough for summer swimming. The boating season is restricted by severe winters.

Scenery is one of the lesser key elements affecting potential for water sports areas, but still important. Applicable areas of scenery are those in view of existing water areas and from sites of possible water impoundments. Scenery was considered in terms relative to the general scenery of the county.

Existing water areas are usually the most important element in this appraisal in relation to immediate potential. The inventory of existing waters was analyzed to appraise development potential for new water sports areas. Rating was made on

The basis of extent of existing shoreline of 26 miles of Mississippi River and approximately 17 miles of the Skunk River on the southern boundary of the county and such impoundments as Lake Geode and other small lakes and farm ponds throughout the county.

Recent information from the State Conservation Commission and other governmental agencies have indicated that there could be large impoundments on water in Des Moines County and some public boat marinas built on the Mississippi River at a later date.

Water impoundment sites can be a very important key element. However, with the large amounts of existing waters in Des Moines County, this element is not critical. The sites in the inventory are mainly suitable for swimming and non-power boating. Health requirements may limit the use of some of them for swimming.

Size and distribution of population is an important element here. Since swimming and boating are heavily day-use activities, the waters must be near population

centers to develop full use. The population of the urban centers of 5,000 and more in the local area was used.

Age and occupation of the population affects the potential for water sports areas. Swimming is heavily a youth activity; boating is a young-family activity. Boating is more popular in families of the skilled labor group than others, yet also is popular with people in other well-paid occupations. The average age of 36 in the local area was used as the age criterion.

Proximity to cities is a significant element in appraising this potential. The extent to which the water and potential water areas of the county are within 150 miles of urban centers of 5,000 or more was the general measure.

XII. WINTER SPORTS AREAS

Winter sports areas generally center around skiing. Additional activities that may be offered include tobogganing, ice skating, sledding, ice hockey, sleigh rides, ice boating, snowmobile trips, and dog sledding. All are dependent on the kind of winter weather prevalent in the area. Since skiing is the hub of the enterprise, this appraisal is based mainly on its potential.

It was found that skiing has limited possibilities due to the restriction of snow in Des Moines County. Slopes are adequate and all other sports are centered around cold and subzero weather and snow. The overall score is 50 or less.

Climate for good winter sports area potential must have: Long winters; a large number of below-freezing days; snowfall that is frequent and substantial. These characteristics of the climate are not in Des Moines County.

The scenery element in appraising winter sports area potential includes the esthetic aspects of the scene. In general, the scenery needs to be attractive, as hilly, wooded areas go for certain developments of local use. The wider the appeal is to be for clientele -- and hence, the broader the competition for business -- the more choice the scenery must be.

The soils element was examined only for those locations in the county where skiing might be developed. Favorable soil properties for skiing areas are adequate soil depth to grow good grass and prevent slippage and erosion, medium texture, and good drainage.

No areas in the county meet all these criteria.

Existing water areas and water impoundment sites each have some bearing on the potential for winter sports areas. One value is their use for skating, hockey, and other ice sports. Water for winter sports areas is generally available throughout the county.

Size and distribution of population for local developments, concerns the population of urban centers of 5,000 or more locally.

The age of the population is important in winter sports area appraisals. The

group aged 15 to 29 in the local area was the statistical class considered for skiing, and a wider age range for other winter activities.

Income is an important element, especially for skiing. The local \$5,733. median family income was used for this element.

Access roads in Des Moines County present little problem.

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines

1. WATERSHED DELINEATION

a. Watershed identification IA-IM-MISSISSIPPI-0-21

b. Watershed area in acres 17,250

c. Area of watershed in county 17,250

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks "Application"
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					Yellow Springs
(1) Floodwater and sediment damage					
(a) Agricultural	1,275	900	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	14,000	5,000	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>80</u> %: Pasture <u>20</u> %)	5,000	1,800	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX	X		130,000
(3) Fish and wildlife development	XX	XX	X		Game Fish & Migratory Birds
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 86

4. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed project ☒ b. Not a potentially feasible watershed project ☐

5. DATE OF COMPLETION

10/5/66

file 290-11

SS-377

Form N-3-5

Rev. 8/64

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICECONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTSSTATE IowaCOUNTY Des Moines1. WATERSHED DELINEATION

a. Watershed identification IA - UM - SKNK - 23 - 42 b. Watershed area in acres 106,880 c. Area of watershed in county 5,500

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	175	175	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	3,500	1,400	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>75</u> %: Pasture <u>25</u> %)	3,000	1,000	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX		X	
(4) Water quality control	XX	XX		X	

3. ESTIMATED NUMBER OF FARMS 274. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☒b. Not a potentially feasible watershed project ☐5. DATE OF COMPLETION7/27/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines - Henry
(summary)

1. WATERSHED DELINEATION

a. Watershed identification IA - UM - SKNK - 23 - 42

b. Watershed area in acres 106,380

c. Area of watershed in county -

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	1,925	1,925	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	86,045	43,400	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>96</u> %: Pasture <u>4</u> %)	54,950	28,500	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX		X	
(4) Water quality control	XX	XX		X	

3. ESTIMATED NUMBER OF FARMS

527

4. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☒

b. Not a potentially feasible watershed project ☐

5. DATE OF COMPLETION

7/27/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTSSTATE IowaCOUNTY Des Moines1. WATERSHED DELINEATIONa. Watershed
identification IA - UM - SKNK - 23 - 29b. Watershed area in
acres 183,040c. Area of watershed in
county 5,7602. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	400	400	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	3,200	1,200	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland 90% : Pasture 10%)	400	-	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX		X	
(4) Water quality control	XX	XX		X	

3. ESTIMATED NUMBER OF FARMS 284. FEASIBILITY CLASSIFICATION (Check appropriate box)a. Potentially feasible watershed
project ☒b. Not a potentially feasible watershed
project ☐5. DATE OF COMPLETION7/26/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines

1. WATERSHED DELINEATION

a. Watershed
identification IA-DM-MISSISSIPPI-G-22

b. Watershed area in
acres 5,250

c. Area of watershed in
county 5,250

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	320	320	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	4,000	2,000	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>75%</u> : Pasture <u>25%</u>)	1,700	580	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX	X		130,000
(3) Fish and wildlife development	XX	XX	X		Game Fish & Migratory Birds
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 26

4. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed
project ☐

b. Not a potentially feasible watershed
project ☒

5. DATE OF COMPLETION

10/5/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines

1. WATERSHED DELINEATION

a. Watershed identification IA-UM-MISSISSIPPI-0-23

b. Watershed area in acres 94,720

c. Area of watershed in county 90,560

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. Flood prevention					
(1) Floodwater and sediment damage					
(a) Agricultural	10,790	10,790	XX	XX	
(b) Urban	90	90	XX	XX	
(2) Erosion damage	64,300	42,300	XX	XX	Burlington
b. Agricultural water management					
(1) Drainage (Cropland 75 %: Pasture 25 %)	19,700	4,550	XX	XX	
(2) Irrigation			XX	XX	
(3) Rural water supply	XX	XX		X	
c. Non-agricultural water management					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX			
(3) Fish and wildlife development	XX	XX	X		130,000
(4) Water quality control	XX	XX	X		Game Fish Sediment

3. ESTIMATED NUMBER OF FARMS 424

4. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

10/5/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines-Henry
(Summary)

1. WATERSHED DELINEATION

a. Watershed identification IA-DM-MISSISSIPPI-0-23

b. Watershed area in acres 94,720

c. Area of watershed in county -

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	10,910	10,910	XX	XX	
(b) Urban	90	90	XX	XX	Burlington
(2) Erosion damage	67,700	43,780	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland 78 %: Pasture 22 %)	22,700	3,630	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX	X		130,000
(3) Fish and wildlife development	XX	XX	X		Game Fish
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 444

4. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

10/5/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines

1. WATERSHED DELINEATION

a. Watershed identification IA-UM-MISSISSIPPI-0-24

b. Watershed area in acres 81,360

c. Area of watershed in county 81,360

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	60,680	51,150	XX	XX	
(b) Urban	200	200	XX	XX	Burlington
(2) Erosion damage	28,300	16,100	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland 80 %: Pasture 20 %)	50,300	43,400	XX	XX	
(2) Irrigation			XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX	X		West Burlington
(2) Recreational development	XX	XX	X		150,000
(3) Fish and wildlife development	XX	XX	X		Fish
(4) Water quality control	XX	XX	X		Municipal and Industrial Waste

3. ESTIMATED NUMBER OF FARMS 557

4. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

10/5/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTSSTATE IowaCOUNTY Des Moines1. WATERSHED DELINEATION

a. Watershed identification IA-DM-IOWA-22-44 b. Watershed area in acres 41,860 c. Area of watershed in county 3,970

2. <u>WATERSHED PROBLEMS</u>	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	275	200	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	2,900	2,000	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>80</u> %: Pasture <u>20</u> %)	700	300	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX		X	
(4) Water quality control	XX	XX		X	

3. ESTIMATED NUMBER OF FARMS 194. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed project ☐ b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION9/21/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Louisa-Des Moines
(Summary)

1. WATERSHED DELINEATION

a. Watershed
identification IA-UM-IOWA-22-44

b. Watershed area in
acres 41,860

c. Area of watershed in
county 37,890

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. Flood prevention					
(1) Floodwater and sediment damage					
(a) Agricultural	1,267	1,192	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	15,900	5,000	XX	XX	
b. Agricultural water management					
(1) Drainage (Cropland <u>97</u> %: Pasture <u>3</u> %)	13,700	300	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. Non-agricultural water management					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX		X	
(4) Water quality control	XX	XX		X	

3. ESTIMATED NUMBER OF FARMS 215

4. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

9/21/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTSSTATE IowaCOUNTY Des Moines1. WATERSHED DELINEATIONa. Watershed
identification IA-UM-IOWA-22-45b. Watershed area in
acres 79,940c. Area of watershed in
county 12,9402. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. Flood prevention					
(1) Floodwater and sediment damage					
(a) Agricultural	406	406	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	9,900	7,020	XX	XX	
b. Agricultural water management					
(1) Drainage (Cropland 100 %: Pasture 5 %)	1,240	60	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. Non-agricultural water management					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX	X		130,000
(3) Fish and wildlife development	XX	XX	X		Fish and Migratory Birds
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 66

4. FEASIBILITY CLASSIFICATION (Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

9/21/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines-Louisa-Muscatine
(Summary)

1. WATERSHED DELINEATION

a. Watershed identification IA-UM-IOWA-22-45 b. Watershed area in acres 79,940 c. Area of watershed in county -

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. Flood prevention					
(1) Floodwater and sediment damage					
(a) Agricultural	20,904	20,904	XX	XX	
(b) Urban	-	-	XX	XX	
(2) Erosion damage	32,900	19,820	XX	XX	
b. Agricultural water management					
(1) Drainage (Cropland <u>96</u> %:Pasture <u>4</u> %)	25,230	260	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. Non-agricultural water management					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX	X		130,000
(3) Fish and wildlife development	XX	XX	X		Fish and Migratory Birds
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 274

4. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☐ b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

9/21/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines

1. WATERSHED DELINEATION

a. Watershed identification IA - UM - SKNK - 23 - 43

b. Watershed area in acres 7,100

c. Area of watershed in county 7,100

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural			XX	XX	
(b) Urban	650	650	XX	XX	
(2) Erosion damage			XX	XX	
	5,100	3,000			
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>50</u> %: Pasture <u>50</u> %)	300	250	XX	XX	
(2) Irrigation			XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX		X	
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX		X	
(4) Water quality control	XX	XX	X		Game Birds
			X		Industrial water & Sediment

3. ESTIMATED NUMBER OF FARMS 35

4. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

7/27/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines

1. WATERSHED DELINEATION

a. Watershed identification LA - UM - SKNK - 23 - 44

b. Watershed area in acres 103,100

c. Area of watershed in county 32,070

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. <u>Flood prevention</u>					
(1) Floodwater and sediment damage					
(a) Agricultural	3,103	3,103	XX	XX	
(b) Urban	4	4	XX	XX	
(2) Erosion damage	9,170	5,985	XX	XX	
b. <u>Agricultural water management</u>					
(1) Drainage (Cropland <u>84</u> %: Pasture <u>16</u> %)	8,220	2,400	XX	XX	
(2) Irrigation	XX	XX	XX	XX	
(3) Rural water supply	XX	XX		X	
c. <u>Non-agricultural water management</u>					
(1) Municipal or industrial water supply	XX	XX	X		Augusta
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX	X		Game birds & Fish
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 312

4. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

7/27/66

CONSERVATION NEEDS
INVENTORY - SMALL WATERSHED PROJECTS

STATE Iowa

COUNTY Des Moines - Lee - Henry
(summary)

1. WATERSHED DELINEATION

a. Watershed identification IA - UM - SKNK - 23 - 44

b. Watershed area in acres 103,100

c. Area of watershed in county _____

2. WATERSHED PROBLEMS

	Acres having problems	Acres needing project action	Need Exists		Remarks
			Yes	No	
(A)	(B)	(C)	(D)		(E)
a. Flood prevention					
(1) Floodwater and sediment damage					
(a) Agricultural	18,679	18,679	XX	XX	
(b) Urban	4	4	XX	XX	
(2) Erosion damage	52,633	16,190	XX	XX	
b. Agricultural water management					
(1) Drainage (Cropland 90 %:Pasture 10 %)	18,479	4,334	XX	XX	
(2) Irrigation	-	-	XX	XX	
(3) Rural water supply	XX	XX		X	
c. Non-agricultural water management					
(1) Municipal or industrial water supply	XX	XX	X		Augunda
(2) Recreational development	XX	XX		X	
(3) Fish and wildlife development	XX	XX	X		Fish & Game Birds
(4) Water quality control	XX	XX	X		Sediment

3. ESTIMATED NUMBER OF FARMS 630

4. FEASIBILITY CLASSIFICATION

(Check appropriate box)

a. Potentially feasible watershed project ☐

b. Not a potentially feasible watershed project ☒

5. DATE OF COMPLETION

7/27/66

Des Moines
(COUNTY)

Number of watersheds partially or wholly in county

10

Number of above watersheds which are potentially feasible
PL-566 projects

3

Acres in potentially feasible PL-566 projects

28,510

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
405 Iowa Building
Des Moines, Iowa 50309

Advisory-CN-Iowa-2

February 18, 1965

To: Area Conservationists and Work Unit Conservationists

From: Frank H. Mendell, State Conservationist

Re: Watershed Inventory and River Basin Study

On January 15, 1965, the State Committee on the Iowa Inventory of Soil and Water Conservation Needs met to discuss actions which need to be taken to up-date the watershed part of the Conservation Needs Inventory of 1959.

One significant action is to reactivate County Conservation Needs Committees and request their assistance in providing needed information for up-dating and revising the 1959 Inventory.

Need for up-dating Watershed Inventory

Since the completion of the original inventory, there has been an ever-increasing concern for protection and development and use of water from all parts of the Nation.

Present River Basin Studies, as currently being conducted in Iowa on the Upper Mississippi and Missouri River Basins, the small watershed program, Resource Conservation and Development programs, regional studies, and the need for more reliable information for Congressional hearings have created a significant and continuing demand for realistic watershed inventory data.

USDA Soil and Water Conservation Needs Inventory Committee has agreed that a revised watershed project inventory is important to the Department's watershed programs and should be started at an early date.

Composition of County Conservation Needs Committee

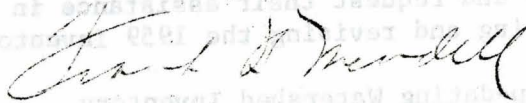
The same agencies, organizations and groups as was used in the 1959 inventory. County Chairmen (SCS Work Unit Conservationists) are requested to discuss the policy and procedure for up-dating the watershed inventory with the County Committee as soon as can be conveniently arranged. The purpose, policy, and procedure are contained in Conservation Needs Memorandum 19. Copy of this memorandum has been distributed to all SCS field offices.

We (Soil Conservation Service) are not in a position to obligate other agencies in the current survey. We do, however, invite agency representatives to participate to the extent of their interest and authority, recognizing many have current knowledge and information now available which would assist in the assembly of inventory data. No special field surveys are anticipated for obtaining information.

Each County Chairman is requested to provide a copy of this advisory notice to other members of the County Conservation Needs Committee.

The State Conservation Needs Committee suggests this inventory be discussed by the County Chairmen at County (TAP) Technical Action Panel meetings.

Sufficient copies of this advisory notice are being sent to each work unit office to enable the County Chairman (Work Unit Conservationist) to provide a copy of it to other agency representatives in the county at the time they are invited to participate.



Disposition:

Please file this advisory notice in Conservation Needs File.

(Copy)

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
405 Iowa Building
Des Moines, Iowa 50309

April 7, 1967

Advisory - CNI - Iowa 2

TO : Area Conservationists

From : Frank H. Mendell, State Conservationist

Subject: CNI - Conservation Needs Inventory for Watersheds

Under separate cover we are sending the results of the recently completed Watershed Inventory. There are maps of each county showing the watersheds considered. N-3-5 forms are included for each watershed or part of a watershed within each county showing the extent of the problems within that watershed. In addition, each N-3-5 is marked as to whether or not the watershed is potentially feasible for project development.

Besides the maps and N-3-5 forms for each county in your area, we have included a map for area office use showing the potentially feasible projects within the area.

Please contact us if you have need for further information.

Under separate cover:

N-3-5 for each WS in area - (Package)
Map of each county in Area)
Map showing WS's in Area) - Roll

/s/ Frank H. Mendell

(This may help to understand the material you received. The State Office did not furnish copies for distribution. LHM)

