

WARREN COUNTY
SOIL CONSERVATION DISTRICT

LONG RANGE
WORK PLAN

Original	March 3, 1944
Revised	December 31, 1948
Revised	April 6, 1965
Revised	December 10, 1975
Revised	February 7, 1980

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LONG RANGE PROGRAM AND WORK PLAN
WARREN COUNTY SOIL CONSERVATION DISTRICT

FOURTH REVISION

JANUARY 1980

FORWARD

The Warren County Soil Conservation District program and work plan presented lists the soil, water, and related land use needs that exist in the District. The program and work plan will list the objectives and general description of the approach which will be used to obtain these objectives.

THE DISTRICT

The Warren County Soil Conservation District is a subdivision of State Government duly organized under authority of Chapter 467-A Code of Iowa 1973. Its purpose is to facilitate and promote action among all landowners and others to assist in effectively solving the soil, water, and land use related problems of the District.

DISTRICT COMMISSIONERS

The governing body of the Warren District consists of five Commissioners elected at the General election on a non-partisan basis for staggered six year terms. Warren District Commissioners elect officers and appoint Committees annually. Present District Commissioners are:

Robert Morrison, Chairman	Term expires	1-2-81
Wayne Dillard	" "	1-2-81
Darrell Goodhue	" "	1-3-83
O. R. Pehrson	" "	1-2-85
Roy Davey	" "	1-2-85

The Warren County Soil Conservation District embraces all the land lying within the boundary of Warren County.

The Commissioners are responsible for carrying out the administration, financial, and other affairs of the District. Regular monthly meetings will be held and special meetings will be called as necessary.

The background information which was contained in the original district program and work plan prepared in 1944 and revised in 1949, remains in effect. However, because of changing conditions, we feel that it is essential that more up-to-date information be included, and guidelines under which the District may operate be revised. As conditions change, revisions and additions will be made a part of this program and work plan.

FEDERAL, STATE, AND LOCAL ASSISTANCE

The District operates under the supervision of the Department of Soil Conservation and of the State of Iowa. Funds are provided from appropriations of the State Legislature through the Department of Soil Conservation to employ clerical assistance and technical aid for the District and provide cost sharing assistance to construct conservation practices on the land.

By memorandum of understanding between the Soil Conservation District and the Soil Conservation Service, U.S. Department of Agriculture, the Soil Conservation Service furnishes technical personnel especially trained in the science of soil and water resource conservation to assist the District in its program.

The Soil Conservation Service provides a District Conservationist, conservation technician, and conservation aide, depending on the availability of personnel, work load, and funds.

The District appreciates the working relationship with the State Department of Soil Conservation, U.S. Soil Conservation Service, Agriculture Stabilization and Conservation Service, Cooperative Extension Service, Farmers Home Administration, Warren County Board of Supervisors, Warren County Conservation Board, State Conservation Commission officers and Foresters, Indianola Chamber of Commerce, County newspapers, Radio Station KBAB, local businesses, and community and farm organizations in carrying out the District Program.

The District receives technical assistance in woodland management from the District Forester provided by the State Conservation Commission. The District also receives assistance from many other U.S.D.A. State and local agencies and organizations. Recommend and advise that as work load increases, the U.S. Soil Conservation Service strongly consider additional personnel.

POLICIES OF THE WARREN DISTRICT

Resource Conservation Planning for individual tracts of land will be used to assist landowners, rural and urban, plan the conservation practices needed.

The Resource Conservation Plan will be based on the soil inventory and capability of land. Landowners, individuals, or groups desiring a Resource Conservation Plan will be requested to sign a Cooperative Agreement with the Warren County Soil Conservation District.

The District will provide technical information and counseling to owners of urban property and units of government when the district receives requests for such assistance. This assistance will be provided as available facilities permit and that the assistance does not interfere with private agencies providing similar assistance.

The recently published Warren County Soil Survey Report is recognized as the best information available concerning the soil resources in the District. It will be used extensively in conservation planning, land use planning, and conservation application.

PRIORITIES IN RESOURCE CONSERVATION

The District recognizes two high priority problems in conserving the district's soil resources:

1. Sheet erosion on sloping cropland.
Conservation practices which help to control erosion in cropland will be stressed in conservation planning, practice application, and also allocation of any state cost sharing funds. Terraces, conservation tillage, contouring, and crop rotations are practices that will help to solve this problem.
2. Planting and Renovating Pastureland.
Planning for better pasture management, planting improved pastures, and better grazing systems will also be high priority. Ponds for livestock water and grade stabilization are necessary in many pasture systems.

The District will assist in conservation education activity through news media, tours, and contests.

In addition to the Badger Creek Watershed, local watershed projects and P.L. 566 Watershed projects will be emphasized. Watershed inventory informat is on file in the District office.

The District will stress multi-purpose projects that will provide maximum benefit to as many residents as possible.

COMMUNITY DEVELOPMENT

- I. The District will encourage all agencies of governments, consulting firms, developers, and industry to use the soil survey information as the basis for sound land use planning.
- II. Act as a clearing agency in implementing the Districts responsibilities as pertains to the Iowa Conservancy District and Soil Loss Limit Regulations created by the Conservancy District Act of the 64th Iowa General Assembly.
 - A - Maximum soil loss limits have been set (March 7, 1972) for each soil type in the Warren District. (Sec. 467A.47 1973 Code of Iowa).
- III. The District will encourage all units of Government, landowners, tenants and livestock producers to apply necessary water management and waste management practices necessary to reduce the pollution of the environment.

Beautification of the landscape by the wise use of plant materials throughout the District will be encouraged.

WARREN COUNTY RESOURCE INVENTORY

DATA - AUGUST 1979

Estimated - 210,000 Cropland	57.4%
" 80,000 Pasture	21.8%
" 25,000 Woodland	6.8%

CROPLAND - 210,000 acres:

37% - 78,184 acres in nearly level upland or bottomland soils, Class I, IIw, and IIIw.

22% - 46,448 acres - Class II, gently sloping, 2-5%

32% - 65,689 acres - Class III, gently to moderately sloping, 5-9%.

8% - 18,202 acres - Class IVe, IVw and IVs, moderate to strongly sloping, 9-14%.

1% - Other

CROPLAND -

				<u>Terraces Needed</u>
			<u>Acres</u>	<u>Acres</u>
Class I - IIw - IIIw - 97,730 acres - 80% cropland	=	78,184	x 10% =	7,818
Class IIe 58,060 " - 80% "	=	46,448	x 70% =	32,514
Class IIIe 87,585 " - 75% "	=	65,689	x 75% =	49,267
Class IVe-IVw-IVs 45,505 " - 40% "	=	18,202	x 60% =	10,921
Class VIe, Class VIIe, etc. Other	=	1,477	x 60% =	886
		210,000		*101,406

TERRACE NEEDS - CODE 600

It is estimated that terraces on 100,000 acres of this land would benefit greatly the water management and sediment control.

*100,000 acres needs terraces x 180' terraces per acre = 18,000,000 feet of terraces.

The 18 million feet of terraces needed, and only 2 million feet of terraces on the land, would indicate 16 million feet still required. At the present rate of only 90,000' per year, it would require 170 to 180 years to install the terraces needed.

CONSERVATION TILLAGE - CODE 329

Contouring and conservation tillage would further reduce the erosion losses permitting landowners more time to install terraces and the related drainage system. Conservation tillage would benefit a high percentage of our 210,000 acres of cropland (70%) or 147,000 acres. It is estimated approximately 30,000 acres of corn and soybeans acres are conservation tilled.

Conservation tillage with at least 2,000# of cornstalk residue on the surface at planting can be expected to reduce soil losses by one-half.

PASTURE LAND

The 80,000 acres estimated to be in pasture or timber pasture represents 21 to 22% of the Warren County soil resource base. The forage production potential is highly variable as indicated by the Crop Suitability Rating and forage yield potential.

The major problems associated with the areas in pastures are:

- 1 - Many pasture units are overgrazed. Overgrazing limits the production of forage, reduces the plant stands, and encourages additional soil erosion.
- 2 - Many pasture units are low in soil nutrients and have a soil PH too low for the establishment and production of legumes.
- 3 - It is estimated forage production could be doubled if pastures were limed and fertilized, a legume introduced, and good grazing management practiced.

WOODLAND

The present 25,000 acres estimated to be in timber or woodland is often used for pasture also. Pasturing eliminates the establishment of new plants and can seriously damage the established trees. Heavily grazed units also have excessive erosion losses, especially in the drainage ways.

The low economic returns from the woodland has encouraged considerable clearing for both cropland and pasture. The disappearance of this woodland has caused some concern as to how to maintain or increase the timber areas. The increasing demand for fuel wood may be of some assistance in providing some economic return.

Many small landowners, 5 to 20 acre units, have expressed interest in tree planting projects. The establishment of timber and wildlife areas around the numerous farm ponds provides another area that could be expanded.

For the long range, it would appear it will be more difficult to save the desirable timber areas without a special incentive program, such as a tax incentive.

RURAL RECREATION AREA

Hooper Game area	320 acres
Lake Ahquabi	641 acres land + 130 ac. water in water area
Banner pits	211 acres
Downey Memorial Park	20 acres
Pickard Park	150 acres
County Conservation Board	80 acres
" " "	160 acres
	<u>1,582</u> acres
Other 500 ponds	<u>500</u> acres
1 ac. per pond	2,082 acres

WARREN COUNTY SOIL CONSERVATION DISTRICT

POPULATION CHANGES AND PROJECTIONS

<u>Population</u>	<u>1990</u>	<u>1980</u>	<u>1970</u>	<u>1960</u>	<u>1950</u>
Warren County	40,000	32,000	27,432	20,829	17,758
Percent change Warren County - 1960 to 1970 - 31.7% increase					
					<u>% Change 1960-1970</u>
Indianola			8,852	7,062	25.3
Carlisle			2,246	1,317	70.5
Milo			561	468	19.9
Norwalk			1,745	1,328	31.4
Spring Hill			131	111	18.0
St. Marys			105	94	11.7
Bevington (Warren) (Madison)			7 { 61 54 {	9 { 55 46 {	- 1.8
Martensdale			306	316	- 3.2
Ackworth			111	77	44.2
Cumming			189	148	27.7
Hartford			582	271	114.8
Sandyville			89	115	- 22.6
New Virginia			452	381	18.6
Lacona			<u>424</u> 15,800	396	7.1

Cities & towns	15,800
Rural (Farms)	8,600 Estimated from percentage above
Rural (Other)	<u>3,032</u> " " " "
	27,432 Total

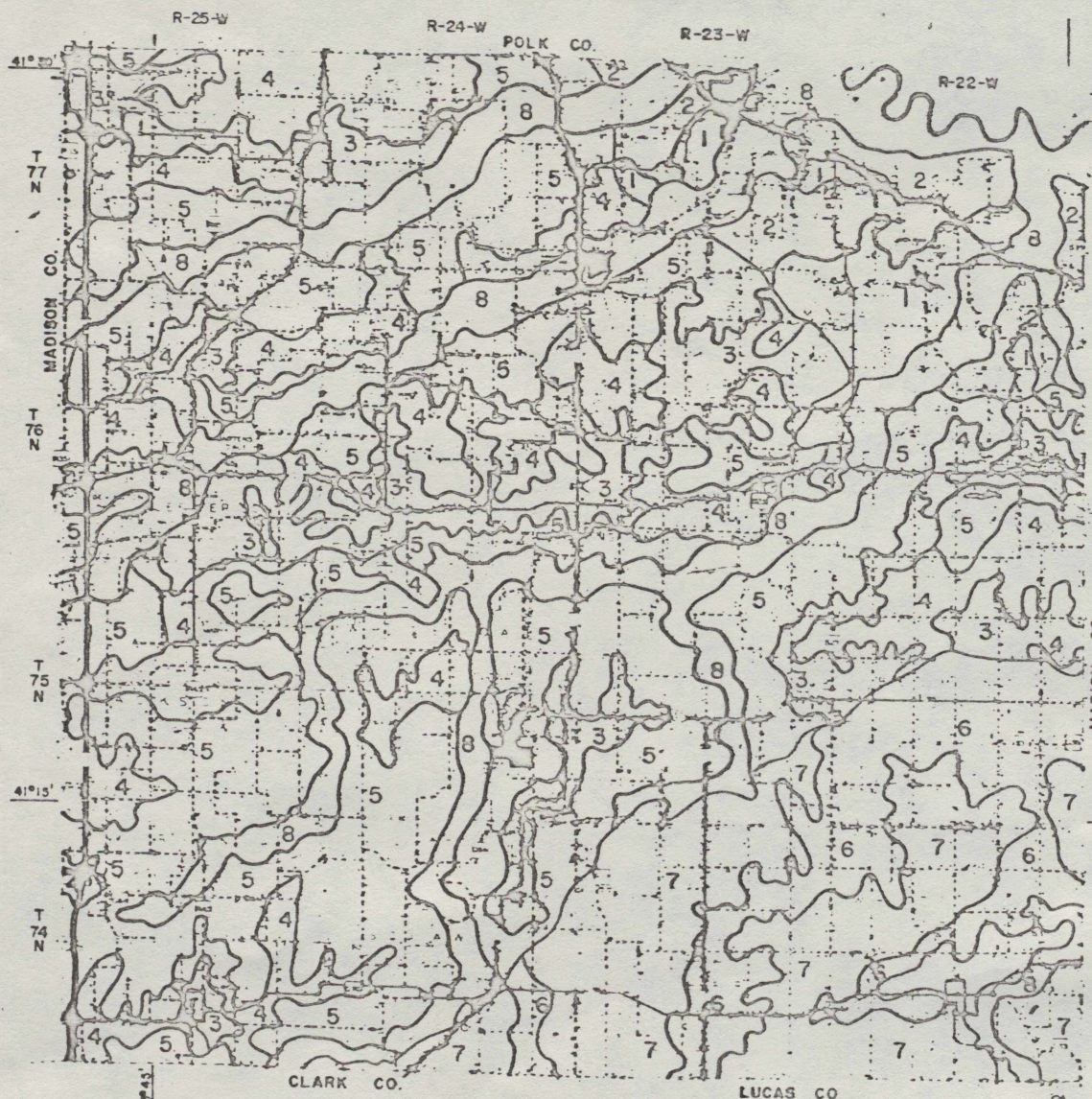
Average Farm Size 230 Acres

1973 Census 1,455 Farm Units

SOIL ASSOCIATIONS

- 1 TAMA ASSOCIATION:
NEARLY LEVEL TO STRONGLY SLOPING, WELL-DRAINED SOILS ~~WITH SILTY CLAY LOAM SUBSOILS~~ THAT FORMED IN LOESS UNDER PRAIRIE VEGETATION IN THE UPLANDS AND ON HIGH STREAM BENCHES.
- 2 DOWNS-FAYETTE ASSOCIATION:
NEARLY LEVEL TO STEEP, WELL-DRAINED SOILS ~~WITH SILTY CLAY LOAM SUBSOILS~~ THAT FORMED IN LOESS ~~UNDER THE INFLUENCE OF FOREST VEGETATION~~ IN THE UPLANDS AND ON HIGH STREAM BENCHES.
- 3 MACKSBURG-SHARPSBURG-WINTERSET ASSOCIATION:
NEARLY LEVEL TO MODERATELY SLOPING, MODERATELY WELL-DRAINED, ~~SOMEWHAT POORLY DRAINED AND~~ POORLY DRAINED SOILS THAT FORMED IN LOESS ON STABLE SUMMITS OF THE UPLANDS AND ON HIGH STREAM BENCHES.
- 4 SHARPSBURG-LAMONI ASSOCIATION: ~~STRONGLY SLOPING~~
GENTLY SLOPING TO MODERATELY STEEP, MODERATELY WELL-DRAINED ~~AND~~ SOMEWHAT POORLY DRAINED SOILS THAT FORMED IN LOESS AND GLACIAL TILL UNDER PRAIRIE VEGETATION.
- 5 LADOGA-GARA-ARMSTRONG ASSOCIATION:
~~GENTLY SLOPING~~ TO VERY STEEP, ~~MODERATELY~~ WELL-DRAINED TO SOMEWHAT POORLY DRAINED SOILS FORMED IN LOESS AND GLACIAL TILL ~~AND INFLUENCED BY FOREST VEGETATION~~.
- 6 GRUNDY-HAIG ASSOCIATION:
NEARLY LEVEL TO STRONGLY SLOPING, MODERATELY WELL-DRAINED TO POORLY DRAINED SOILS THAT FORMED IN LOESS ON STABLE UPLAND DIVIDES, RIDGETOPS, AND HIGH STREAM BENCHES.
- 7 GARA-GOSPORT-PERSHING ASSOCIATION:
NEARLY LEVEL TO VERY STEEP, ~~MODERATELY~~ WELL-DRAINED TO SOMEWHAT POORLY DRAINED SOILS THAT FORMED IN RESIDUAL SHALE, GLACIAL TILL, AND LOESS UNDER THE INFLUENCE OF FOREST VEGETATION.
- 8 ZOOK-WABASH-NODAWAY ASSOCIATION:
NEARLY LEVEL, VERY POORLY DRAINED TO MODERATELY WELL-DRAINED SOILS THAT FORMED IN ALLUVIUM ON FIRM BOTTOMS OF MAJOR STREAMS.

GENERAL SOIL MAP
WARREN COUNTY
IOWA



SCALE 0 1 2 3 4 5 MILES
1/200000
POLYCONIC PROJECTION

SOURCE 1972 COUNTY HIGHWAY MAP AND
INFORMATION FURNISHED BY SOIL SCIENTIST

STATEMENT OF ADOPTION AND APPROVAL

We, the Commissioners of the Warren County Soil Conservation District,
approve the revision program and work plan.

Dated February 7, 1980

Robert Morrison
Chairman

Roy Dawley
Secretary

February 25, 1980

Department of Soil Conservation
Wallace State Office Building
Des Moines, IA 50319

Gentlemen:

Enclosed is a copy of our revised District Long Range Work Plan for
your files.

Sincerely,

Mrs. Mary Streeter
Clerk

ms

enc.