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Anita K. Van Bruggen

A. VAN BRUGGEN RECORDER

NOTICE OF FILING OF
SOIL AND WATER RESOURCE CONSERVATION PLAN

SIOUX COUNTY
SOIL AND WATER CONSERVATION DISTRICT
SOIL AND WATER RESOURCE CONSERVATION PLAN

YOU ARE HEREBY NOTIFIED that the Sioux County Soil and Water Conservation District has adopted a soil and water resource conservation plan which was approved by the State Soil Conservation Committee and signed by the director of the Division of Soil Conservation on June 25, 1991. The plan is available for your inspection during normal business hours, Monday - Thursday, 7:30 a.m. to 5:00 p.m. and Friday from 7:30 a.m. to 4:00 p.m., at the district office located on Highway 10 East, Orange City, Iowa. This notice is given pursuant to the requirements of Iowa Code section 467A.7(20)(b)(1991), and House File 2112, 74th G.A., 2nd Sess., Section 1 (Iowa 1992), or as subsequently amended.

SIOUX COUNTY

SOIL AND WATER CONSERVATION DISTRICT

RESOURCE CONSERVATION PLAN

Sioux County Soil and Water Conservation District

Resource Conservation Plan

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PREFACE

The Sioux County Soil and Water Conservation District has responsibilities under state laws for carrying out a county-wide soil and water conservation program. Planning for the long-term conservation of our soils, water, and related resources is not a simple task; but is a necessary process when orderly development and utilization of our natural resources is expected.

The Sioux County Soil and Water Conservation District recognizes that with constant change, an operating strategy can seldom be long lasting and needs to be re-analyzed periodically. The update of our long-range program will reflect our objectives and priorities as we plan to meet the land and water needs of our people.

This program is being provided by the Commissioners of the Sioux County Soil and Water Conservation District for all individuals, groups, and units of government. It is an organized effort to develop and protect our soil and water resources for the benefit of all. Every governmental agency; civic, environmental, or community group; and each citizen can and is encouraged to make a meaningful contribution towards implementing this conservation program. Only through cooperation of everyone can we hope to complete this most important task before some of our resources are irretrievably destroyed.

PURPOSE OF THE LONG RANGE PLANNING PROGRAM

The purpose of this plan for the Sioux County Soil and Water Conservation District is two-fold. The first is that the process of putting the plan together allows for inventories to be developed on the various soil and water resources within the District. The second purpose is that the plan should be the focus of long-range development of the District's soil and water resources, as well as the basis for budgeting and implementation. Furthermore, this continuous process is easily updated and/or amended to fit the needs of the citizens the District serves.

The Sioux County Soil and Water Conservation District Commissioners appreciate the cooperation in developing this long-range plan. First the Commissioners would like to thank the representatives of the: U.S. Soil Conservation Service, Agricultural Stabilization and Conservation Service, Department of Natural Resources, Iowa Department of Agriculture and Land Stewardship, Division of Soil Conservation, Iowa State University Cooperative Extension Service, County Board of Supervisors, Iowa Department of Transportation, U.S. Geological Survey, and the Iowa Department of Economic Development.

Secondly, credit should go to those contributing the input that produced the objectives, goals, and priorities of this plan. These include: county and city officials, local news media, school board members, County Conservation Board, Izaak Walton League, Ducks Unlimited, Pheasants Forever, West Sioux Sportsman Club, East Sioux Sportsman Club, Jaycees, American Legion, Farm Bureau, Regional Councils of Government, Senior Citizens Groups, Women's Groups, and other county REAP Committee members.

ORGANIZATIONS AND AUTHORITIES

The Sioux County Soil and Water Conservation District was organized at the request of local people interested in soil and water conservation. A charter was issued under the provisions of the Soil Conservation Districts' Law, Code of Iowa, Chapter 467A, on May 5, 1949. The boundaries of the District and the county are the same.

The District is a subdivision of state government governed by five locally elected Commissioners, who are elected on the general ballot and serve six year terms. District Commissioners are charged by the Iowa General Assembly with the restoration and conservation of the soil, water, and the related natural resources of the county. The District receives support services from the Iowa Department of Agriculture and Land Stewardship. Commissioners can appoint as many Assistant Commissioners as they deem necessary.

Additional authorities have been given the Soil and Water Conservation District since it was founded in 1949. Some of these additional authorities are:

1. The Commissioners of the Soil and Water Conservation District shall adopt reasonable regulations (Chapter 467A, Sec. 42-53) to establish a soil loss limit for the District and provide for the implementation of the limit and may subsequently amend or repeal their regulations as they deem necessary. Chapter 467A also provides for mandatory erosion control after due process.

2. The Soil and Water Conservation District (Chapter 467B) advises and consults with counties and sub-districts upon the request of any of them or any affected landowners, and is authorized to cooperate with other state subdivisions, or instrumentalities and affected landowners, as well as with the federal government or any department or agency thereof, to construct, operate, and maintain suitable projects for flood or soil erosion.

3. Under Chapter 467C, the County Board of Supervisors can establish districts having for their purpose soil conservation and the control of flood waters. The establishment of these districts requires the approval of the Soil and Water Conservation District along with the Department of Natural Resources. This section includes the role of the District in representing the rural as well as urban interests in the administration of the Erosion Control Law and other programs in which the District is involved. The basic urban concern is to help urban areas with erosion control. Consulting assistance is provided to both the cities and the county upon request. Also, these authorities are within the Code of Iowa, Chapter 467E - Agricultural Energy Management and Chapter 467F - Water Protection Projects and Practices. However, the ultimate responsibility for soil erosion control rests with the District.

The District is authorized to request assistance from and enter into Memorandums of Understanding between themselves and other federal, state, and local entities to carry out their assignment and leadership role in the conservation, development, and productive use of the county's soil, water, and related resources.

Active Memorandums of Understanding have been signed with:

U.S. Department of Agriculture (4/30/87)

U.S. Soil Conservation Service (7/11/88)

Sioux County Board of Supervisors (7/29/80)

U.S. Army Corp. of Engineers (11/15/76

Cooperative Extension Service (2/18/63)

USDA ASCS (9/18/89

Iowa Department of Agriculture and Land Stewardship,

Division of Soil Conservation (7/16/90)

The District also provides sponsorship and direction to programs administered by other agencies that directly affect the operations and objectives of the District. In addition, there are a number of agencies that have programs available that can assist the District in carrying out its long range program and annual plan of work.

GENERAL DESCRIPTION OF THE SIOUX DISTRICT

The total area of the District is approximately 766 square miles or 490,240 acres. Roughly 99.7 percent of the total acres in the District is land, and the other .3 percent is in water.

The major industrial developments of the county range from Rendering Plant in Alton, Smit & Sons Beef Processor and DEMCO in Boyden, Otis Radio & Electric, Lamb Processing Plant, K-Products, and Iowa Bank Corp. in Hawarden; Betterway Enterprises, H & S Manufacturing, Packerland Packing Company and Woudstra Packing Company in Hospers; Foreign Candy Company Inc., FORMOSA Food Company Inc., Pizza Ranch, K & O Manufacturing Company in Hull; PNM Animal Health Center in Ireton; K-Products, Tyson Foods, Silent Drive Inc., Diamond Vogel Paint Company, MED-TEC, Tolman Fabricating Inc., FANDSCO Enterprises Inc. in Orange City; Kooima Manufacturing, Roorda Machine Shop Inc. and Pollema Manufacturing Inc. in Rock Valley; Sioux Preme Packing Company, Associated Milk Producers Inc., EMW Groschopp Inc., E-Z Fuels Ltd., EDA Inc., Ag Laboratories Inc., D-R Industries, Center Industries Ltd., Interstates Electric & Engineering Company Inc., Jesco Wholesale Electrical Supplies, Sioux Automation Center Inc., Sioux Preme Egg Products Inc., NOBL Laboratories Inc., Tyson Foods, Trans Ova Genetics, Tri-State Livestock Ltd and Wal-Mart Discount in Sioux Center.

The demographics of the Sioux District can be divided into three distinctive groups. The first group is the percentages of urban and rural people living within the District. 63.6 Percent of the residents of the District live in urban areas, based upon the fact that any town over 2500 population is an urban settlement. This then leaves 36.4 percent of the District's population in a rural setting. Further, 15 percent of rural population are rural non-farm. The second grouping of our population is by percent male and percent female. The population by gender in the District is 48 percent male and 52 percent female, and the percent of the District's operating units that are male are 76%, and female are 24%. Thirdly, the District can be broken down by race percentages. The percentages show 98.7% White (Caucasian) .08% Black, .42% Hispanic, .70%

Oriental, and .10% Native American. The District's operating units are 100% White.

Agricultural tendencies of Sioux District have seen corn, soybeans, oats and alfalfa crops grown. Farming is the chief economic enterprise in Sioux County. In 1990, 434,686 acres of the 2,015 farms was cropland. Corn, soybeans and oats are the main crops. In cultivated areas erosion is a hazard; Water erosion is the major problem on 75% of the cropland in the county. Applying a conservation tillage system that leaves crop residue on the surface, tilling on the contour, and terracing help to control erosion.

Growing grasses and legumes for hay and pasture on 16,314 acres is an effective way of controlling erosion. Overgrazing, however, causes surface compacting and poor tilth, increases the runoff rate, and reduces forage production. Proper stocking rates, pasture rotation and timely deferment of grazing help to keep pastures in good condition.

According to 1987 Census of Agriculture, 947 farms sold a total of 257,632 cattle. 1,070 farms sold 873,187 hogs. 25 farms sold 15,115 poultry. 185 dairy farms had 9,404 dairy cattle on inventory. The average income in the Sioux District is $15,415.00, which is 90% of the State of Iowa income.

The number of acres within the District that are specifically used for row crops based on 1990 data is 434,686 acres or approximately 89 percent. Also, 20 percent of these acres are designated Highly Erodible Land under the Food Security Act. Trend shirts in agriculture in Sioux District is shown below:

ACRES IN PRODUCTION			
	1950	1970	1990
CORN	174,667	234,258	240,475
SOYBEANS	27,156	56,754	129,239
HAY	31,188	3,751	152,491
PASTURE	72,639	37,441	1,065

Urban usage of land within the District is roughly 12,778 acres. This is the portion of land area designated as part of a town or city equal to or exceeding a population of 2500. There are 16,314 acres of pasture and hayland. 1,000 acres of woodlands consisting of bottomland hardwoods such as silver maple, ash and walnut exist in the county. A large portion of the woodland is grazed which reduces the quality and vigor of forest stands.

Area with contracts in the Conservation Reserve Program (CRP) in the District is approximately 1.6 percent of the total acres, or 7,889 acres. Currently .5 percent of total farms in the District are enrolled in this program.

A recent trend in land use in some parts of the county has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty and less productive and can not be easily cultivated. A recent trend to produce livestock in commercial or feedlot livestock systems has resulted in some pastures being converted to cropland. This trend is expected to continue as cattle and dairy numbers decrease.

Ownership status of the land within the District consists of two types. The first type of ownership is the land that is owned by the person who uses or lives upon it. The second type is land that is rented or leased to another party. The percentages of land owned and leased or rented in the District is 50% and 50% respectively.

INVENTORY OF SOIL, WATER, AND RELATED NATURAL RESOURCES

SOIL RESOURCES

Frequent reference will be made to the existing Sioux County Soil Survey, completed in October, 1986. It will be the source for much of the soils data presented throughout this section.

The soil resources used for agricultural purposes are 434,686 acres. Of this total acreage, 60% is planted to corn, 33% is planted to beans, 2.8% is planted to oats and 4.2% is planted to hay. Pasture and hayland is located on 16,313 acres. Woodland acres in the District total 1,000 acres.

Loss of potential productivity caused by soil loss is a concern on land used for agriculture. Excessive soil losses will limit production in the future. The following explains the soil loss rates and time limits on reducing soil loss for each agricultural use.

CROPLAND

Approximately 369,714 acres are used for corn and beans. Soil losses on these acres increases as the acreage of row crop, land slope, and soil erodibility increases.

WATER RESOURCES

1. Water Quantity.

Water resources within the Sioux Soil and Water Conservation District have contributed largely to the development of the District.

In the past small streams served as generators of power for lumber and grain mills and as transportation routes. Today these streams are very important for livestock water, fish and wildlife habitat, and recreational areas.

There are 168.29 miles of perennial streams in the District. The percentage of this total that is located in urban areas is approximately 4.7%. The 95.3 percent that remains is located in the rural setting. Streams that are considered perennial streams located in the District include Big Sioux River 39.76 miles; Rock River 16.53 miles; Floyd River 20 miles; West Branch of the Floyd 20 miles; Six Mile Creek 30 miles; Dry Creek 19 miles; Indian Creek 7 miles; Willow Creek 10 miles; Deep Creek 6 miles; and Otter Creek 13 miles.

The number of acres classified by the SWCD into priority watershed and/or area status is 60,000 acres. This translates into about 12 percent of the area being considered a priority watershed.

The rivers of Sioux County, namely The Big Sioux, Rock and Floyd have warm water fishing, canoeing, and irrigation as their major designated use.

No open water serves as a public water supply. Sioux County residents receive their water supply from shallow wells or from the Rural Water Association. Refer to Active Public Water Supply Table.

The 10 acre Fairview Area Impoundment (Sioux 1) was built from the impoundment of the on road structure on the county A45B. The structure is used for warm water fishing and wildlife. Surface runoff is the primary source of the water.

The 5 acre Sioux Center Pit (Sioux 2) was an old gravel pit now used for warm water fishing and aquatic wildlife. The source of water is high water table.

The 7 acre Winterfield Pond (Sioux 3) is a pit used for warm water fishing and some swimming. The source of water is high water table.

The 2 acre Floyd Park Pit (Sioux 4) is used for warm water fishing. The water source is the high water table.

The 80 acre Hawarden Pits is used for warm water fishing and and wildlife. The water source is high water table and surface water.

The 1 acre Hastern Pit is used for warm water fishing.

Wetlands in Sioux District will be protected to fullest extent possible. This is to be supplemented by advising landowners of their opportunity to utilize these areas in order for them to be beneficial to wildlife or suitable land uses. As of now there are 207 acres of wetlands in the District. This translates to 0.8 percent of the total area of the District.

2. Ground Water Quality.

According to 1980-87 hygienic laboratory survey, 60-70 percent of private wells in Sioux County exceed nitrate drinking water standards. Tech guide section 1-B.

3. Water Quality-Agricultural Nonpoint Source Pollution.

Water quality is affected in Sioux County by feedlot runoff and by septic tank laterals. Feedlot runoff often first passes through county road ditches, this in addition with silt from erosion is a nuisance problem to the county in addition to water quality damage. Urban use of chemicals and fertilizers on lawns are often of high rates which contaminated water quality. Nitrogen and phosphorus runoff impact surface runoff from Agriculture land. The practice of running the septic tank directly to field tile is still a common practice which adversely effects water quality.

Upland flooding is a problem. This is characterized by flash floods damaging roads and some cropland.

LAND MANAGEMENT

Current practices of land management include: conservation tillage, contour, grasses waterways and terraces.

Currently 152,546 acres or 35% of the row crop acres are planted using conservation tillage. With the FSA program and emphasis placed on water quality, we expect the use of conservation tillage to increase.

161,718 acres or 37% of the row crop acres are contoured. Because of the impression that contouring takes more time, we see only those acres required by the 1985 farm bill to begin contouring in the future.

Grassed waterways have not been a popular practice. Those acres required by FSA are the only waterways expected to be added in the future.

Terraces are a popular practice since a corn-bean rotation with little change in tillage can be used. Almost 2 million feet of terraces will be required for FSA. We expect the continuation of a minimum of 100 miles of terraces/year to be constructed in the future.

Practice	Total Needs	Accomplished To Date To Date	Total Remaining To Be Done	F.S.A. Needs By 1995
Conservation Tillage (Ac)	434,686	152,546	282,140	29,418
Contour System Farming (Ac)	323,315	161,718	161,599	30,970
Farmstead Windbreaks (Ac)	6,699	1,437	5,163	
Field Windbreaks (Ft)	10,639,200	0	10,639,200	0
Terraces (Ft)	40,414,375	2,278,530	38,135,845	1,662,196
Grassed Waterway	8,681	2,354	6,325	6,334
Grade Stabilization (No)	42,240	39,028	23,212	0
Structures (No)	50	5	45	0
Field Border (Ft.)	3,059,092	14,620	3,044,472	3,059,092
Subsurface Drainage (Ft)	4,000,000	3,980,852	19,148	0
Waste Management Systems (No)	1,255	17	1,238	0
Nutrient Management (Ac)	434,686	173,874	260,812	0
Pesticide Management (Ac)	434,686	260,812	173,874	0
Pasture & Hayland Management (Ac)	16,313	0	0	0
Conservation Cover (Ac)	25,000	7,889	17,111	23
Tree Planting (Ac)	3,500	50	3,450	0
Woodland Improvement (Ac)	1,000	0	1,000	0

FACTORS LIMITING PRACTICE APPLICATION

1. Construction of Terraces. There is insufficient cost-share available. The present cost-share funds barely covers the HEL ground. No funds are available for NHEL ground.

   There is not enough time to complete terraces during the fall and spring seasons.

   Contractors are limited in order to get terraces done in fall and spring.

   Farmers have a perception that terraces are weed patches. Farmers feel that they are loosing ground to terraces and the farmability is decreased by terraces.

   Grazing livestock and terraces are not compatible due to landowner customs and refusal to change, landowners do not construct terraces.

2. Conservation Tillage on cropland. Farmers are custom to clean tilled fields. Residue looks like trash or poor farming techniques. Other factors include the cost to change machinery, management ability is limited and often operators are misinformed.

3. Contouring. The major limiting factor for contouring is time to farm on the contour and inconvenience. Personnel to lay out contour lines is limited.

4. Grassed Waterways. Farmers do not see the need for gully erosion control. Farmers do not want to take the ground out of production. Waterways in the past filled up with silt or herbicide from surrounding upland area. The cost of constructing waterways have been prohibited in the past.

5. Field Borders. Operators do not see the need for erosion control on end rows. Operators do not want to take the ground out of production. Operators believe pocket gophers will move into the area and cause problems with acres. Chemicals kill seedings.

6. Windbreaks. Small windbreaks can be death traps for pheasants in severe winters. Windbreaks are too costly to establish. Windbreaks remove too much land from production. Farmers are unable to plant and care for the windbreak due to health or absentee landowner.

LIST THE ACTIONS NEEDED TO OVERCOME THESE LIMITING FACTORS

1. Terraces. Lobby legislators to increase cost-share levels. Continue to efficiently use all state, ACP & LTA funds.

   Encourage landowners to construct terraces in the summer on set-aside or oats ground.

   Lobby legislators to provide increased set-aside amounts specifically to construct terraces; and provide 60% cost-share between June 1 and September 1 to construct terraces.

   Inform contractors on terrace sign up in order to spread jobs around to all contractors and have contractors encourage farmers to build terraces during the summer months.

   Insure that landowners/operators are given seeding sheets when job is staked. Hold cost-share until the job is seeded. Develop more efficient way of seeding terraces to insure proper germination of grasses

   Use broadbase terraces on livestock farmers on slopes less than 5%. Encourage landowners to restrict grazing of terraced field until a permanent seeding is established. Temporarily fence the top of the terrace until a permanent seeding is established.

   Maintain parallel terraces whenever feasible. Encourage contractors to reparallel lower terrace line after top terrace and backslope is constructed.

2. Conservation Tillage. Educate producers on how to measure residue by use of the "Conservation on Your Own" video and through follow-up and status reviews.

   Provide field tours, demonstration plots and tillage seminars. Develop conservation tillage club to allow veteran no-tillers to share information with new conservation tillage producers.

3. Contour. Educate producers on the soil savings to offset inconvenience. Educate producers on how to layout contour lines by using the "Conservation on Your Own" video. Encourage producers to purchase Agri-Drain or Cherokee Scout instruments. Encourage volunteers to help farmers layout contour lines.

4. Grassed Waterways. Educate producers on the need for waterways. Encourage the use of switchgrass. Educate custom applicators and producers on proper maintenance and spraying techniques. Lobby legislators for additional cost-share to provide cost-share for waterways.

5. Field Borders. Educate producers on the need for field borders. Encourage the use of switchgrass to prevent atrazine damage and wildlife habitat. Treat field borders with poison grain to eliminate gophers. Provide research to evaluate the economics of farming end rows. Lobby legislators to allow field borders into the CRP program.

6. Continue to provide floating cost-share rates to encourage larger multiple row windbreaks.

   Lobby legislature and Division to insure that the $700 cost-share limit be lifted.

   Develop district planting program similar to South Dakota and Minnesota Districts to plant windbreaks for those interested in that service. District should hire a person to supervise the planting and care for windbreaks. Use ADC recipients to plant windbreaks.

DISTRICT OBJECTIVES, GOALS, AND PRIORITIES

OBJECTIVE I. REDUCE SOIL EROSION, IMPROVE SURFACE & GROUND WATER QUALITY.

GOAL A. Provide assistance so that producers can implement their FSA HEL plans as scheduled.

Action Items	Responsibility	Start	End	Completion	Remarks
1. Conduct 5 FSA informational mtgs. for owners/operators.	Commissioners	12/90	1/94		
2. Conduct one women's FSA informational Mtg.	Vera Verdoorn	3/91	7/91		
3. Contact Vo Ag to help measure residue.	Vance Shoemaker Tony & Lloyd	4/91	5/91		
4. Develop No-Till & Ridge Till Club.	Vance Shoemaker Dallas Huebner Lloyd Gayer Tony Pottebaum	1/92	5/92		
a. No-till tour in cooperation with extension service.	Commissioners	5/91	6/91		
5. Conduct NW IA Tillage Conference in cooperation with SCS & Extension Service.	Commissioners	11/91	3/92		
6. Provide cost-share alternatives to terraces on a case by case bases.	Commissioners	5/91	5/94		

GOAL B. Provide assistance on non-highly erodible tracts.

Action Items	Responsibility	Start	End	Completion	Remarks
1. Legislator meeting	Commissioners	1/92	5/92		
a. Lobby for more cost-share.		1/92	5/92		
b. Lobby for more set aside acres.		1/92	5/92		
c. Lobby legislators to allow 60% for use between June 1 until Sept. 1.		1/92	5/92		
2. Encourage switch-grass/brome frost seeding until seeding is adequate.	Commissioners	2/92	2/95		
a. Develop video to educate cost-share applicants on seeding.					
3. Contact Board of Supervisors to provide cost-share for terraces.	Commissioners	6/91			
a. Invite the Supervisors to the annual county tour.		6/91			
b. Contact Doug Julius to inform the commissioners on the ditches that were cleaned out each year.	Tony Pottebaum	3/91	6/91		
4. Promote a conservation Soil Stewardship ethic.	Commissioners	1/92	2/92		
a. Expand Soil Stewardship with the churches by meeting with the county pastoral association.					

OBJECTIVE 2: IMPROVE SURFACE AND GROUND WATER QUALITY.

Action Items	Responsibility	Start	End	Completion	Remarks
1. Promote Integrated Pest Management.	Commissioners Extension Service	1/92	4/92		
a. Educate urban dwellers on the use of nitrogen & pesticide use on lawns & golf courses.					
b. Educate producers on proper nitrogen & pesticide use in cooperation with model farm demonstration.					
2. Promote grassed waterway construction and maintenance on all fields with 75% upland treatment.					
a. Use CRP contracts.					
b. Educate custom applicators on proper spraying techniques.	Dallas Huebner Tony Pottebaum	2/92	5/95		
c. Encourage the use of native grass in waterway seedings.		2/92	5/95		
d. Make a district policy requiring 66' filterstrips along rivers & streams in sodbusted pastures.	Commissioners	4/91	5/95		
3. Provide REAP cost-share to construct feedlot waste management systems.	Commissioners	3/91	5/95		
4. Encourage supervisors to provide cost-share to close abandoned wells.	Commissioners	9/91	8/92		

OBJECTIVE 2: IMPROVE SURFACE AND GROUND WATER QUALITY. - Continued

Action Items	Responsibility	Start	End	Completion	Remarks
5. Work with county & landowners to insure that septic tanks are not hooked into field tile.	Dallas Huebner	4/91	1/92		
6. Monitor activities affecting ground water. a. Vogel Paint dump. b. Landfill disposal. c. Gas tank replacement	Commissioners	4/92	5/93		
7. Provide REAP cost-share and promote native grass pasture plantings.		3/91	5/95		
8. Inventory watersheds for 319 acres.		6/91	7/92		

OBJECTIVE 3. INCREASE RECREATIONAL, WILDLIFE AND WOODLAND RESOURCES.

Action Items	Responsibility	Start	End	Completion	Remarks
1. Encourage the planting of winter cover thru shelter-belts, windbreaks, green belts, and wildlife plantings.	Commissioners				
a. Lobby all the legislators to continue REAP.	Commissioners	2/91	2/91	2/91	
b.Lobby ASCS to develop flexible cost-share to encourage large windbreaks and field windbreaks eligible for set aside.	Commissioners	3/91	3/91		
c. Develop District windbreak sales.	Commissioners	9/91			
d. Promote CRP contracts for shelterbelts, field windbreaks, wildlife areas, living snow fences and tree plantings.	Commissioners	3/91	5/95		
e. Promote the planting of woodland trees at the toe of terraces-Ag Forestry.					
f. Promote modern technology to encourage tree growth.					
g. Develop District planting program to plant and care for windbreaks.	Dallas Huebner	2/92			
2. Contact Social Services to help with care of trees.					

OBJECTIVE 3. INCREASE RECREATIONAL, WILDLIFE AND WOODLAND RESOURCES. - Continued

Action Items	Responsibility	Start	End	Completion	Remarks
3. Support the Naturalist Program. Educate the public of habitat needs.	Commissioners	3/91	5/95		
4. Promote the Integrated Vegetation Roadside Management Program.	Commissioners	3/91	5/95		
a. Seek volunteer & social services.					
b. Encourage supervisors to develop county program in conjunction with SCD & Extension.					
5. Preserve odd areas in existing habitat.		2/92	3/92		
a. Encourage supervisors to turn railroad land over to Conservation Board for habitat or trails.		2/92	1/93		
1. Seek volunteers to research ownership.					
6. Coordinate projects with County Conservation Board.	Commissioners	6/91	1/92		
a. Big Sioux Boat Ramp					

OBJECTIVE 4: ENCOURAGE PROPER WASTE DISPOSAL & RECYCLING TECHNIQUES.

Action Items	Responsibility	Start	End	Completion	Remarks
1. Promote recycling in the county.					
a. Share cost of dumpster with ASCS to encourage USDA to recycle paper.	Commissioners	4/91	5/91		
b. Make public aware of recycling law of used motor oil.	Commissioners	4/91	5/91		
c. Encourage REC and cities to promote wood chips and grass clippings to cooperators that plan windbreaks for mulch.	Commissioners	4/91	5/92		
d. Work with the county to develop toxic waste clean up day in cooperation with Extension & Supervisors.	Commissioners	1/92	5/92		
e. Promote composting of yard waste by cities.	Commissioners	1/92	1/92		

DISTRICT POLICIES

It will be the policy of the Sioux County Soil and Water Conservation District to:

1. Equal Opportunity in the Delivery of Services

2. Equal Opportunity in SWCD Board and Committee make up

3. Equal Opportunity in Employment

4. SCS Technical Guide as SWCD Technical Standards

4. Priority Practices for Technical Assistance

   a. Terraces

   b. Windbreaks

   c. Animal Waste Feedlot Systems

5. Soil Loss Limit Level is 5 tons/acre/year.

6. Land Treatment Requirements above waterways, ponds, etc. is 75%.

7. Cost Share Policies of the District:

Terrace application priority is Highly Erodible Land as scheduled by date of signup (first come first served). The commissioners will provide 50% cost-share. The limit for a cooperator per year is 10,000' at .70/ft. for an estimated cost of $7,000.00. The limit of cost-share a cooperator can receive per year is $3,500.00. The commissioners will cost-share on 50% of $30/acre for seeding terraces. The cooperator must provide proof of seed by submitting a bill for seed and a signed terrace seeding plan.

Windbreak cost-share was developed to encourage windbreaks that provide more winter cover for wildlife. The cost-share rate varies depending on the number of rows planted. Every windbreak must have a minimum of one row of shrubs and two rows of conifers.

5 row is 50% cost-share
6 row is 60% cost-share
7 row is 70% cost-share
8 row is 75% cost-share
9 row or more could receive up to 90% cost-share

The maximum total plant cost we will cost-share on is:

$13.00 for conifers

$3.00 for broadleaf trees

$1.00 for shrubs

8. Policy on Contractor check out. All terrace projects will be checked out by contractor after construction.

9. Iowa Soil 2000.

STATEMENT OF ADOPTION

We, the Commissioners of Sioux County Soil and Water Conservation District, adopt this program on the **8th** day of **April, 1991**.

Chairman

Commissioner

Commissioner

Commissioner

Commissioner

STATEMENT OF APPROVAL

This plan of the Sioux County Soil and Water Conservation District was reviewed and approved by the Iowa Department of Agriculture and Land Stewardship, Division of Soil Conservation on June 25, 1991.

Director
Division of Soil Conservation

MAPS

The maps used in the appendix of this plan have been prepared concurrently with text used in this plan.

managed public lands

Existing Co. Con. Board owned or managed public lands

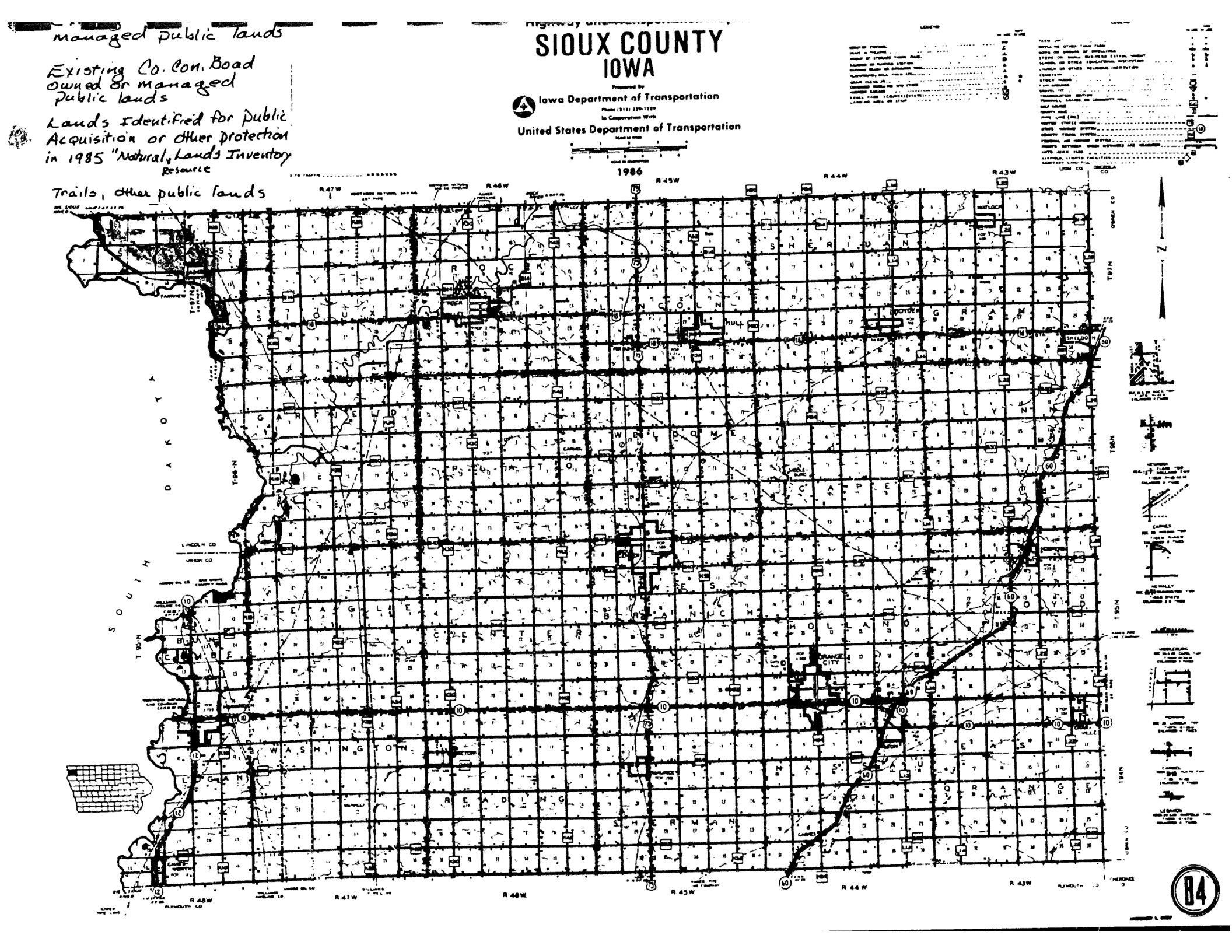
Lands Identified for public Acquisition or other protection in 1985 "Natural Lands Inventory Resource

Trails, other public lands

SIOUX COUNTY
IOWA

Prepared by
Iowa Department of Transportation
In Cooperation With
United States Department of Transportation

1986



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STATE TABLE I. IOWA

		1970	1984	1987	1988	1990	1995	2000	2010
1	TOTAL POPULATION (THOUSANDS)	2,826.53	2,909.57	2,917.34	2,922.90	2,933 19	2,961.74	2,996.27	3,048.46
2	AGE 0-4	233.09	227.95	238.01	238.80	239.32	228.51	213.89	214.64
3	AGE 5-9	278.85	199 12	209.01	213.24	218.02	226.25	218 40	201.28
4	AGE 10-14	293.73	215.69	192.95	193 40	197.31	212.31	222.51	201.48
5	AGE 15-19	275.00	236.72	220.52	216.07	202.54	194 60	211.07	211.51
6	AGE 20-24	206.58	256.18	230.55	220.22	211.26	186.91	180.80	200.22
7	AGE 25-29	169 14	251.60	257.90	248.51	237 17	200.07	178.10	183.37
8	AGE 30-34	147.65	218.01	233.92	239.06	235 78	224.71	190.30	164.13
9	AGE 35-39	141.25	194.55	203.42	210.26	213.72	226.90	216.89	165.06
10	AGE 40-44	154 43	181.22	177.19	181.04	201 91	212.64	226.62	182.41
11	AGE 45-49	158.18	131.69	139.67	147.54	158.91	192.07	207.12	210.06
12	AGE 50-54	152.99	129.28	126.81	125.11	128.50	151.07	186.74	215.97
13	AGE 55-59	140 86	139 23	131.07	127.20	119 75	122 18	145.27	192.92
14	AGE 60-64	127.38	137.97	131.32	133.01	125 41	113.06	117 39	169.61
15	AGE 65-69	107.88	117.34	119.18	119.99	123 15	117.05	103.89	126 40
16	AGE 70-74	92.93	102.24	104.89	102.88	106 84	113 18	107.49	103.35
17	AGE 75-79	72.18	82.55	86.28	87.47	88.16	91.86	100.07	90.60
18	AGE 80-84	46.04	56.28	60.65	62.85	64 29	72 75	78.12	86.24
19	AGE 85 AND OVER	30.39	49.06	54.00	56.27	61 17	73.64	91.58	129 26
20	TOTAL POPULATION AGE 0-19	1,080.66	882.49	860.50	861.51	857 19	881.66	865 86	828.90
21	TOTAL POPULATION AGE 20-64	1,398.46	1,619.62	1,831.85	1,631.98	1,632.38	1,631.60	1,649.23	1,683.74
22	TOTAL POPULATION AGE 65 AND OVER	349.42	407 48	425.01	429 48	443 60	468.47	481 15	535.85
23	WHITE POPULATION	2,788.21	2,835.24	2,833.13	2,835.01	2,837 80	2,845 85	2,857 39	2,856.21
24	BLACK POPULATION	32.84	47.26	51.08	52.53	55.38	62.56	70.32	87 30
25	OTHER POPULATION	7.50	27.09	33.14	35.39	40 02	53.33	68.54	104.98
26	MEDIAN AGE OF POPULATION (YEARS)	28.76	31.48	32.35	32.74	33 41	35 18	36.91	39.47
27	TOTAL EMPLOYMENT (THOUSANDS)	1,278 36	1,494 50	1,539.17	1,549.98	1,565 52	1,602 07	1,645.85	1,643.05
28	FARM	186 02	158 53	142.20	140.11	136 08	127.57	120.56	110.00
29	AGRICULTURAL SERVICES, OTHER	10.93	13 11	14.29	14.37	14 41	14 33	14 18	13.80
30	MINING	3.68	2 98	2.58	2.53	2 40	2.09	1.86	1.51
31	CONSTRUCTION	62 42	63.86	65.99	65.14	63 49	59 45	58.64	49.89
32	MANUFACTURING	220.98	215 98	218.06	218.32	217.97	216.86	216.92	205 39
33	TRANS, COMM AND PUB UTIL	61.37	63.55	66.44	66.94	67 15	66.21	65.75	62 46
34	WHOLESALE TRADE	49.94	80 17	83.76	84.91	86 84	90 83	95.81	99 36
35	RETAIL TRADE	214.16	251.36	257.21	257.29	257.08	258 69	263.74	260 68
36	FINANCE, INS AND REAL ESTATE	63.84	100 13	110.22	112.74	116 88	125.26	133.73	140.61
37	SERVICES	208.51	330 29	355.20	361.21	371 02	393 32	412.38	424.26
38	FEDERAL CIVILIAN GOVERNMENT	21.17	19.83	20.30	20 44	20 68	21.30	22.03	22 33
39	FEDERAL MILITARY	17.53	10.42	9.88	9.72	9 41	8.49	7.68	6.51
40	STATE AND LOCAL GOVERNMENT	157.83	184.30	193.05	198.24	202.12	217.84	234.62	246.28
41	TOTAL EARNINGS (MILLIONS '82 $)	$19,359.35	$21,508 79	$22,903.03	$23,228.87	$23,872.63	$25,665.10	$27,838 64	$31,370.36
42	FARM	2,873 61	2,126.83	1,712.10	1,706.29	1,695 10	1,670.20	1,649 68	1,623.29
43	AGRICULTURAL SERVICES, OTHER	103.65	94.37	103.16	103 99	105 44	108.92	112.58	119.98
44	MINING	73.40	43.35	87.91	88.82	90 62	95 31	100.74	113 09
45	CONSTRUCTION	1,168.28	985.76	1,023.75	1,018.40	1,012 33	1,005 70	1,020 82	1,024.91
46	MANUFACTURING	4,685.28	5,135.67	5,455.17	5,481.20	5,538 22	5,718.71	5,947.80	6,199.85
47	TRANS, COMM AND PUB UTIL	1,234.77	1,446 18	1,546.31	1,567 95	1,602 45	1,676.27	1,772.58	1,938.41
48	WHOLESALE TRADE	1,009.71	1,580.58	1,724.73	1,759.62	1,830 80	2,018 11	2,246 49	2,607 41
49	RETAIL TRADE	2,327.20	2,026.00	2,112.64	2,134.63	2,185 21	2,352.86	2,574.91	2,918.95
50	FINANCE, INS AND REAL ESTATE	908.65	1,275.80	1,554.24	1,601.11	1,693 01	1,926 63	2,189.27	2,610.24
51	SERVICES	2,361.57	3,676.70	4,118.33	4,224.74	4,438 60	5,029 17	5,681.21	6,865.43
52	FEDERAL CIVILIAN GOVERNMENT	428.41	452.05	469.99	474.79	482 05	502.30	531.51	590.58
53	FEDERAL MILITARY	55.16	54 08	52.26	54.18	57 65	64 86	72.02	87 49
54	STATE AND LOCAL GOVERNMENT	2,131.68	2,609 44	2,942.43	3,012.92	3,141 15	3,496 05	3,939.24	4,670.77
55	PERSONAL INCOME (MILLIONS '82 $)	$25,597.77	$32,508.83	$31,955.46	$34,426.09	$35,331 79	$38,070 81	$41,664.38	$47,469 59
56	WAGES AND SALARIES	13,736.27	15,811.80	17,260 23	17,492.48	17,932 44	19,141 08	20,630.87	22,978.54
57	OTHER LABOR INCOME	822.06	1,817 17	2,003.20	2,089.14	2,269 35	2,601 80	3,480.36	4,616.35
58	PROPRIETORS INCOME	4,801.02	3,879.82	3,639.60	3,647.05	3,670 84	3,722.22	3,727.40	3,775.48
59	DIVIDENDS, INTEREST AND RENT	4,377.28	7,607.60	7,788.72	7,870.81	8,008 06	8,465 69	9,234.08	10,028.53
60	TRANSFERS TO PERSONS	2,493.91	4,441.89	4,487 96	4,613 50	4,876 94	5,651 84	6,537.39	8,506.12
61	LESS: SOCIAL INS CONTRIBUTIONS	818.86	1,308.10	1,424.30	1,487.46	1,626 41	1,909.99	2,145.18	2,632.74
62	RESIDENCE ADJUSTMENT	186.10	258.68	200.05	200.58	200.56	198.17	199.46	197.32
63	WEALTH INDEX (U.S. = 100.00)	112.40	112.25	111.08	110.75	110.04	108.28	106.58	102.91
64	INCOME PER CAPITA (CURRENT $)	$3,792	$12,123	$14,381	$15,249	$17,222	$23,648	$32,991	$58,114
65	INCOME PER CAPITA ('82 $)	9,050	11,173	11,639	11,778	12,048	12,854	13,905	15,572
66	HOUSEHOLDS (THOUSANDS)	895.69	1,073 80	1,088.15	1,092.00	1,099.85	1,125.28	1,148 53	1,230.22
67	PERSONS PER HOUSEHOLD	3.07	2.63	2.58	2.57	2.56	2.50	2.45	2.28
68	MEAN HOUSEHOLD INCOME ('82 $)	$28,579	$30,275	$31,205	$31,526	$32,124	$33,832	$38,278	$38,586

SELECTED CALCULATIONS FOR IOWA
(RANK OF IOWA AMONG ALL STATES, IN PARENTHESES)

A AVERAGE ANNUAL RATES OF GROWTH, IN PERCENT
TOTAL POPULATION 1970-1984: 0.20 (44) 1984-2010: 0.18 (48)
TOTAL EMPLOYMENT 1970-1984: 1.12 (42) 1984-2010: 0.37 (47)

B PERCENT CHANGES, IN PERCENT
TOTAL POPULATION 1970-1984: 2.86 1984-2010: 4.77
TOTAL EMPLOYMENT 1970-1984: 16.91 1984-2010: 9.94

C PROPORTION OF TOTAL POPULATION, IN PERCENT
WHITE 1984: 97.45 (5) 2010: 93.69 (9)
BLACK 1984: 1.62 (40) 2010: 2.86 (38)
OTHER 1984: 0.93 (37) 2010: 3.44 (22)
AGE 0-19 1984: 30.33 (28) 2010: 27.19 (42)
AGE 20-64 1984: 55.67 (45) 2010: 55.23 (47)
AGE 65 AND OVER 1984: 14.00 (4) 2010: 17.58 (4)

D PROPORTION OF TOTAL EMPLOYMENT, IN PERCENT
MANUFACTURING 1970: 17.28 1984: 14.45 2010: 12.50
MINING 1970: 0.29 1984: 0.20 2010: 0.09
AGRICULTURE 1970: 15.41 1984: 11.48 2010: 7.53
SERVICES 1970: 16.31 1984: 22.10 2010: 25.82

E NEW JOBS CREATED, IN THOUSANDS
TOTAL EMPLOYMENT 1970-1984: 216.14 (36) 1984-2010: 148.55 (38)
SERVICE EMPLOYMENT 1970-1984: 121.78 (28) 1984-2010: 93.97 (29)

F RANKINGS BY POPULATION AND INCOME
POPULATION 1970: 25 1984: 29 2010: 29
PERSONAL INCOME 1970: 23 1984: 28 2010: 30
INCOME PER CAPITA 1970: 20 1984: 29 2010: 22

COUNTY TABLE 84. SIOUX, IA

		1970	1984	1987	1988	1990	1995	2000	2010
1	TOTAL POPULATION (THOUSANDS)	28.02	31.30	31.88	32.01	32.27	32.1	33.08	33.10
2	AGE 0-4	2.37	2.87	3.17	3.14	3.15	2.9	2.74	2.61
3	AGE 5-9	2.94	2.24	2.49	2.55	2.57	2.6	2.58	2.31
4	AGE 10-14	3.13	2.69	2.26	2.35	2.38	2.5	2.70	2.40
5	AGE 15-19	3.35	3.33	2.92	2.91	2.81	2.6	2.85	2.76
6	AGE 20-24	2.10	3.01	2.82	2.68	2.69	2.5	2.25	2.41
7	AGE 25-29	1.42	2.43	2.73	2.42	2.32	2.0	1.76	1.78
8	AGE 30-34	1.33	1.85	2.21	2.30	2.08	2.0	1.74	1.48
9	AGE 35-39	1.32	1.94	1.94	2.22	2.11	2.2	2.17	1.62
10	AGE 40-44	1.47	1.62	1.80	1.78	2.22	2.3	2.34	1.83
11	AGE 45-49	1.46	1.19	1.35	1.47	1.69	2.0	2.14	2.13
12	AGE 50-54	1.42	1.21	1.28	1.20	1.23	1.5	1.92	2.20
13	AGE 55-59	1.25	1.34	1.29	1.28	1.18	1.0	1.46	1.97
14	AGE 60-64	1.17	1.39	1.24	1.37	1.25	1.0	1.25	1.81
15	AGE 65-69	1.06	1.15	1.16	1.11	1.27	1.0	1.10	1.35
16	AGE 70-74	0.92	1.08	1.12	1.06	1.15	1.0	1.20	1.15
17	AGE 75-79	0.70	0.91	0.93	0.95	0.89	0.8	1.12	1.04
18	AGE 80-84	0.40	0.57	0.64	0.67	0.68	0.6	0.85	0.98
19	AGE 85 AND OVER	0.22	0.47	0.52	0.53	0.59	0.6	0.89	1.29
20	TOTAL POPULATION AGE 0-19	11.79	11.13	10.84	10.94	10.91	10.8	10.87	10.08
21	TOTAL POPULATION AGE 20-64	12.93	15.98	16.66	16.72	16.79	16.4	17.04	17.21
22	TOTAL POPULATION AGE 65 AND OVER	3.30	4.19	4.37	4.34	4.57	5.0	5.17	5.80
23	WHITE POPULATION	27.97	31.09	31.62	31.73	31.97	32.0	32.62	32.57
24	BLACK POPULATION	0.02	0.01	0	0	0	0	0	0
25	OTHER POPULATION	0.03	0.20	0.25	0.27	0.30	0.1	0.46	0.53
26	MEDIAN AGE OF POPULATION (YEARS)	25.42	28.11	29.17	29.92	30.51	32.3	34.76	37.52
27	TOTAL EMPLOYMENT (THOUSANDS)	11.90	15.82	16.33	16.53	16.87	17.6	18.45	19.61
28	FARM	3.03	2.94	2.64	2.61	2.55	2.1	2.28	2.09
29	AGRICULTURAL SERVICES, OTHER	0.28	0.22	0.24	0.24	0.24	0.2	0.23	0.22
30	MINING	0.03	0.04	0.04	0.04	0.04	0.0	0.03	0.02
31	CONSTRUCTION	0.62	0.74	0.78	0.77	0.75	0.7	0.96	0.55
32	MANUFACTURING	1.48	2.66	2.70	2.79	2.93	3.2	3.51	3.60
33	TRANS, COMM AND PUB UTIL	0.38	0.46	0.48	0.48	0.48	0.4	0.47	0.43
34	WHOLESALE TRADE	0.33	0.98	1.09	1.12	1.16	1.2	1.35	1.41
35	RETAIL TRADE	1.88	2.26	2.46	2.51	2.62	2.9	3.17	3.43
36	FINANCE, INS AND REAL ESTATE	0.40	0.68	0.74	0.75	0.78	0.8	0.89	0.91
37	SERVICES	2.07	3.30	3.50	3.51	3.53	3.5	3.61	3.54
38	FEDERAL CIVILIAN GOVERNMENT	0.11	0.10	0.11	0.11	0.11	0.1	0.11	0.11
39	FEDERAL MILITARY	0.17	0.11	0.10	0.10	0.10	0.0	0.09	0.07
40	STATE AND LOCAL GOVERNMENT	1.14	1.34	1.45	1.50	1.59	1.8	2.05	2.21
41	TOTAL EARNINGS (MILLIONS '82 $)	$150.34	$188.00	$205.06	$210.64	$222.10	$251.2	$288.86	$349.16
42	FARM	43.27	38.49	39.36	39.18	38.82	31.9	37.09	35.47
43	AGRICULTURAL SERVICES, OTHER	2.24	2.50	2.63	2.63	2.60	2.5	2.42	2.18
44	MINING	0.40	0.73	1.09	1.10	1.12	1.1	1.24	1.33
45	CONSTRUCTION	10.03	9.45	9.79	9.82	9.94	10.2	10.80	11.39
46	MANUFACTURING	21.82	41.73	45.73	47.92	52.43	64.4	77.30	98.58
47	TRANS, COMM AND PUB UTIL	6.45	8.18	8.58	8.77	9.16	10.2	11.12	12.66
48	WHOLESALE TRADE	5.43	15.67	18.55	19.25	20.69	24.9	28.74	35.65
49	RETAIL TRADE	20.29	16.99	18.23	18.89	20.31	24.6	29.30	37.55
50	FINANCE, INS AND REAL ESTATE	4.99	5.99	7.32	7.65	8.32	10.1	12.07	15.59
51	SERVICES	19.87	30.07	33.08	33.79	35.27	38.6	44.68	54.74
52	FEDERAL CIVILIAN GOVERNMENT	2.07	2.24	2.39	2.41	2.45	2.5	2.69	2.91
53	FEDERAL MILITARY	0.43	0.45	0.44	0.47	0.51	0.6	0.74	0.96
54	STATE AND LOCAL GOVERNMENT	13.06	15.49	17.89	18.76	20.47	24.1	30.68	43.15
55	PERSONAL INCOME (MILLIONS '82 $)	$204.64	$298.17	$325.23	$332.81	$347.91	$391.7	$442.48	$522.12
56	WAGES AND SALARIES	79.08	113.88	126.07	130.75	140.11	161.2	192.91	237.22
57	OTHER LABOR INCOME	4.96	14.05	14.64	15.58	17.61	21.9	32.26	48.95
58	PROPRIETORS INCOME	68.30	60.07	64.35	64.32	64.38	68.4	63.79	62.39
59	DIVIDENDS, INTEREST AND RENT	44.43	89.78	99.35	100.63	102.83	109.3	118.39	121.36
60	TRANSFERS TO PERSONS	19.40	38.55	39.85	41.49	45.01	55.3	67.16	93.04
61	LESS SOCIAL INS CONTRIBUTIONS	5.42	10.91	12.45	13.21	14.93	19.2	22.65	30.55
62	RESIDENCE ADJUSTMENT	-4.11	-7.24	-6.57	-6.74	-7.10	-9.1	-9.28	-11.49
63	WEALTH INDEX (U.S. = 100.00)	124.70	128.68	130.91	129.91	127.89	121.0	118.59	109.73
64	INCOME PER CAPITA (CURRENT $)	$3,060	$10,336	$12,589	$13,462	$15,415	$21,9	$31,738	$58,867
65	INCOME PER CAPITA ('82 $)	7,303	9,526	10,203	10,398	10,782	11,9	13,377	15,774
66	HOUSEHOLDS (THOUSANDS)	8.02	10.15	10.30	10.30	10.36	10.4	10.39	10.54
67	PERSONS PER HOUSEHOLD	3.36	2.93	2.89	2.88	2.88	2.8	2.82	2.67
68	MEAN HOUSEHOLD INCOME ('82 $)	$25,504	$29,389	$31,591	$32,318	$33,599	$31,4	$42,573	$49,540

SELECTED CALCULATIONS FOR SIOUX, IA
(RANK OF SIOUX, IA AMONG ALL COUNTIES IN STATE, IN PARENTHESES)

A. AVERAGE ANNUAL RATES OF GROWTH, IN PERCENT
TOTAL POPULATION 1970-1984: 0.79 (13) 1984-2010: 0.22 (25)
TOTAL EMPLOYMENT 1970-1984: 2.05 (7) 1984-2010: 0.63 (23)

B. PERCENT CHANGES, IN PERCENT
TOTAL POPULATION 1970-1984: 11.70 1984-2010: 5.75
TOTAL EMPLOYMENT 1970-1984: 32.89 1984-2010: 17.63

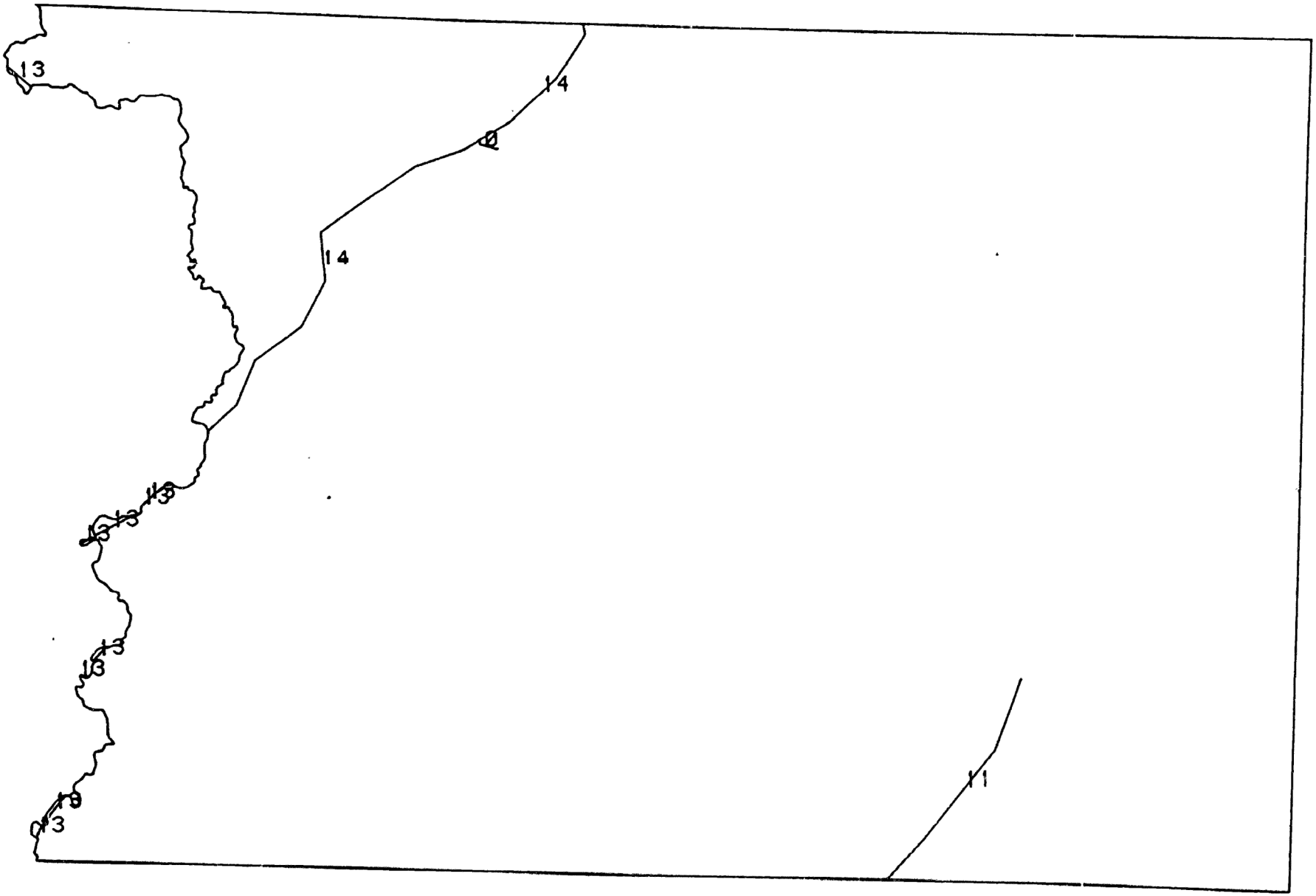
C. PROPORTION OF TOTAL POPULATION, IN PERCENT
WHITE 1984: 99.32 (59) 2010: 98.39 (58)
BLACK 1984: 0.04 (54) 2010: 0.00 (90)
OTHER 1984: 0.64 (31) 2010: 1.61 (41)
AGE 0-19 1984: 35.56 (1) 2010: 30.46 (2)
AGE 20-64 1984: 51.06 (88) 2010: 52.00 (61)
AGE 65 AND OVER 1984: 13.38 (8) 2010: 17.54 (83)

D. PROPORTION OF TOTAL EMPLOYMENT, IN PERCENT
MANUFACTURING 1970: 12.46 1984: 16.81 2010: 19.35
MINING 1970: 0.23 1984: 0.25 2010: 0.10
AGRICULTURE 1970: 27.83 1984: 19.97 2010: 12.37
SERVICES 1970: 17.35 1984: 20.83 2010: 19.01

E. NEW JOBS CREATED, IN THOUSANDS
TOTAL EMPLOYMENT 1970-1984: 3.92 (12) 1984-2010: 2.79 (18)
SERVICE EMPLOYMENT 1970-1984: 1.23 (17) 1984-2010: 0.24 (55)

F. RANKINGS BY POPULATION AND INCOME
POPULATION 1970: 19 1984: 20 2010: 20
PERSONAL INCOME 1970: 27 1984: 22 2010: 18
INCOME PER CAPITA 1970: 92 1984: 88 2010: 39

DESIGNATED RIVERS IN SIOUX COUNTY



1	13	BIG SIOUX R	/	/		0.00
2	14	ROCK R		/		4.55
3	0	THE CUTOFF		Y		0.02
4	14	ROCK R		Y		11.97
5	13	BIG SIOUX R	Y	Y		0.37
6	13	BIG SIOUX R	Y	Y		0.00
7	13	BIG SIOUX R	Y	Y		1.15
8	13	BIG SIOUX R	Y	Y		0.37
9	13	BIG SIOUX R	Y	Y		0.53
10	13	BIG SIOUX R	Y	Y		0.05
12	13	BIG SIOUX R	Y	Y		0.36
13	13	BIG SIOUX R	Y	Y		0.36
16	11	FLOYD R		Y		6.79

Explanation of river maps and data

The maps of the designated rivers in each county show the extent of the designated rivers in those counties as well as listing the Water Quality Standard Number (WQSNO). The WQSNO relates the river to the information in the table. The WQSNOs are listed in order starting with the northernmost river in that county and continuing with the next river segment to the south. The tables list the WQSNO and Water Body name, show a Y if the river is classified as A, B(W), B(C), C, HQ or HQR, and list the actual length of the river segments in that county. Some rivers are broken into several segments, so they will need to be added together to get the total river length in that county. Rivers that form the border for counties have already been totaled and the length penciled in because the computer did not match up the border and the river properly.

IOWA LAKES, WETLANDS, AND RESERVOIRS - BY COUNTY

COUNTY+LAKE NO.	WATERBODY NAME	LOCATION			WATER-BODY SURFACE AREA (ACRES)	WATER-BODY TYPE*	IOWA WATER QUALITY STANDARDS-DESIGNATED USES**			
		RANGE	TWP	SEC			A	BW	BC	C
Sioux1	Fairview Area Impoundment	48	97	14	10	L	N	Y	N	N
Sioux2	Sioux Center Pit	45	95	8	5	L	N	Y	N	N
Sioux3	Winterfield Pond (aka Van Zee Pit)	46	97	19	7	L	Y	Y	N	N
Sioux4	Floyd Park Pit	44	94	11	2	L	N	Y	N	N

* WATERBODY TYPE:

L - LAKE
W - WETLAND
R - RESERVOIR

** WATER QUALITY STANDARDS - DESIGNATED USES:

A - PRIMARY HUMAN CONTACT (EG. SWIMMING & WATER SKIING)
BW - SECONDARY HUMAN CONTACT (EG. FISHING); WARM-WATER FISH AND AQUATIC WILDLIFE
BC - SECONDARY HUMAN CONTACT (EG. FISHING); COLD-WATER FISH AND AQUATIC WILDLIFE
C - DOMESTIC WATER SUPPLY

Y - A DESIGNATED USE
N - NOT A DESIGNATED USE

Active Public Water Supplies Which Do Not Primarily Purchase

The Iowa Department of Natural Resources has provided this information and has indicated the data may not be complete. Please review the data for accuracy.

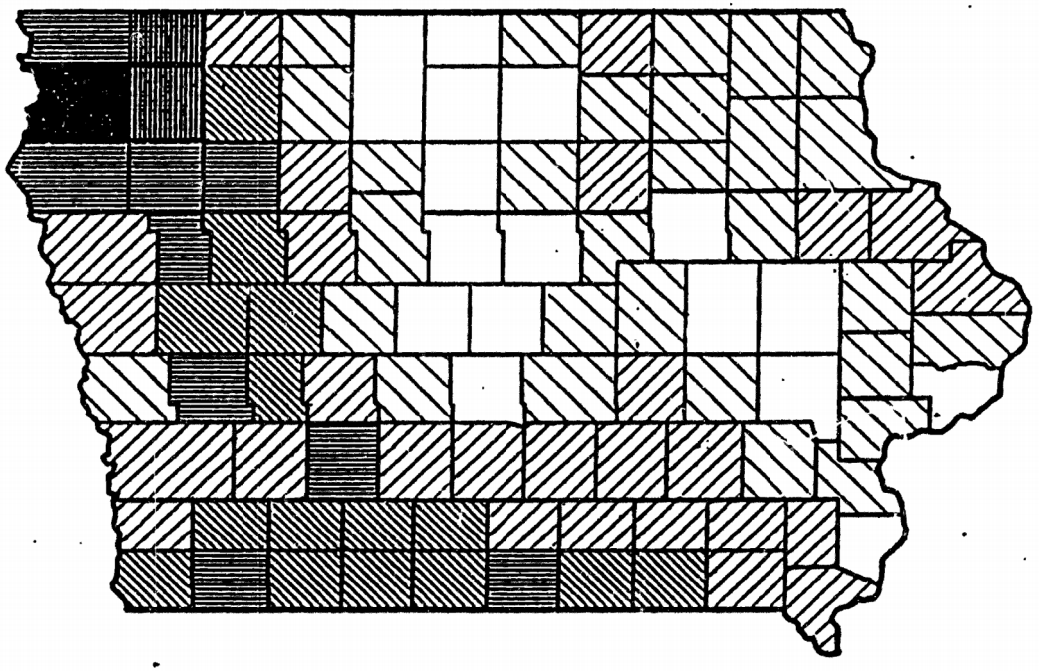
Columns "AVE PROD" (Average Production) and "MAX PROD" (Maximum Production) are calculated in 1,000 gallons per day. Column "S" (Supply) indicates "G" (well) or "S" (surface supply).

ID	FACILITY NAME	CITY	POPL SERVED	AVG PROD	MAX PROD	MILES	SOURCE NAME	T	Q1	Q2	Q3	Q4	SEC	TWN	RNG	D
84	ALTON MUNICIPAL WATE	ALTON	986	103	277	0	WELL #2 (1937)	G					0	0	0	
						0	WELL #3 (1937)	G					0	0	0	
						0	WELL #4 (1976)	G					0	0	0	
						0	WELL #5 (1990)	G					0	0	0	
84	BOYDEN MUNI WATER SU	BOYDEN	750	110	200	0	WELL #3 (1976)	G	NE	SE	SE	SW	2	97	44	W
						0	WELL #4 (1982)	G	NE	SW			2	97	44	W
84	GRANVILLE WATER SUPP	GRANVILLE	290	25	100	0	WELL # 1 (1950)	G	SW	SE	NW	SW	1	94	43	W
						0	WELL # 2 (1959)	G	SW	SE	NW	SW	1	94	43	W
84	HAWARDEN WATER SUPPL	HAWARDEN	2722	346	1386	0	WELL # 1 (1924)	G					0	0	0	
						0	WELL # 2 (1931)	G					0	0	0	
						0	WELL # 3 (1950)	G					0	0	0	
						0	WELL # 4 (1957)	G					0	0	0	
						0	WELL # 5 (1957)	G					0	0	0	
						0	WELL # 6 (1967)	G					0	0	0	
						0	WELL # 7 (1967)	G					0	0	0	
						0	WELL # 8 (1977)	G					0	0	0	
						0	WELL # 9 (1978)	G					0	0	0	
84	HOSPERS MUNICIPAL WA	HOSPERS	650	152	481	0	WELL # 2 (1961)	G					0	0	0	
						0	WELL # 5 (1982)	G					0	0	0	
						0	WELL #10 (1982)	G					0	0	0	
						0	WELL # 6 (1982)	G					0	0	0	
						0	WELL # 7 (1982)	G					0	0	0	
						0	WELL # 9 (1982)	G					0	0	0	
						0	WELL # 11 (1989)	G					0	0	0	
84	HOSPERS RWS #1 PLAN	HOSPERS	[illegible]	[illegible]	[illegible]	[illegible]	WELL # 1 (1973)	G					0	0	0	
						[illegible]	WELL # 2 (1973)	G					0	0	0	
						[illegible]	WELL # 3 (1973)	G					0	0	0	
						[illegible]	WELL # 4 (1973)	G					0	0	0	
						[illegible]	WELL # 5 (1978)	G					0	0	0	
						[illegible]	WELL # 6 (1978)	G					0	0	0	
						[illegible]	WELL # 7 (1978)	G					0	0	0	
						[illegible]	WELL # 8 (1973)	G					0	0	0	
						[illegible]	HOSPERS RWS #2	W					0	0	0	
84	HOSPERS RWS 2 PLANT	HOSPERS	[illegible]	[illegible]	[illegible]	[illegible]	WELL # 1 (1975)	G					0	0	0	
						[illegible]	WELL # 2 (1975)	G					0	0	0	
						[illegible]	WELL # 3 (1975)	G					0	0	0	
						[illegible]	RURAL WATER # 1	W					0	0	0	
						[illegible]	SIOUX CENTER	W					0	0	0	

CO	FACILITY NAME	CITY	[illegible]	[illegible]	[illegible]	[illegible]	WELL NAME	[illegible]	[illegible]	QQ	[illegible]	QW	SEC	TWN	RNG	D
84	HULL WATER SUPPLY	HULL	1740	145	55	0	WELL # 2 (1955)	G					0	0	0	
						0	WELL # 3 (1963)	G					0	0	0	
						0	WELL # [illegible] (1980)	G					0	0	0	
84	IRETON WATER SUPPLY	IRETON	5[illegible]	[illegible]	[illegible]	0	WELL # [illegible] (1948)	G					0	0	0	
						0	WELL # [illegible] ([illegible])	G					0	0	0	
						0	SO. SIOU RWS	P					0	0	0	
84	MATLOCK WATER SUPPLY	MATLOCK	100	-	14	0	WELL # 1	G	NW	NE	SW	NE	9	97	43	W
						0	WELL # 3 (1958	G	SW	SW	SE		5	97	43	W
84	MAURICE MUNI WATER S	MAURICE	18[illegible]	27	80	0	WELL # 1 (1975)	G	NE	NE	SW		17	94	45	W
						0	WELL # 2 (19[illegible])	G	NE	NE	SE		17	94	45	W
84	ORANGE CITY MUNI WAT	ORANGE CITY	45[illegible]	54[illegible]	102[illegible]	0	WELL # 5 (1970	G					0	0	0	
						0	WELL # [illegible] (1970)	G					0	0	0	
						0	WELL # 7 (1970	G					0	0	0	
						0	WELL # 1 (1948	G					0	0	0	
						0	WELL # [illegible] (1948)	G					0	0	0	
						0	WELL # [illegible] (1948)	G					0	0	0	
						0	WELL # 4 (19[illegible]	G					0	0	0	
84	ROCK VALLEY RURAL WA	ROCK VALLEY	1255	325	54[illegible]	190	WELL #1 (1983)	G					0	0	0	
						190	WELL #2 (1983)	G					0	0	0	
						190	ROCK VALLEY	W					0	0	0	
84	ROCK VALLEY WATER SU	ROCK VALLEY	2706	412	777	0	WELL # 1 (19[illegible])	G					0	0	0	
						0	WELL # 2 (1956)	G					0	0	0	
						0	WELL # 3 (1960	G					0	0	0	
						0	WELL # 4 (1968)	G					0	0	0	
						0	WELL # 5 (1981)	G					0	0	0	
						0	WELL # 6 (1977)	G					0	0	0	
						0	ROCK VALLEY RWS	W					0	0	0	
84	SIOUX CENTER MUNI WA	SIOUX CENTER	4588	626	1037	0	WELL # 1 (1947)	G					0	0	0	
						0	WELL # 2 (1955)	G					0	0	0	
						0	WELL # 3 (1961	G					0	0	0	
						0	WELL # 4 (1963)	G					0	0	0	
						0	WELL # 5 (1965)	G					0	0	0	
						0	WELL # 6 (1965)	G					0	0	0	
						0	WELL # 7 (1964)	G					0	0	0	
						0	WELL # 9 (1976)	G					0	0	0	
						0	PURPLE WATER # 2	P					0	0	0	
84	SIOUX-PREME PACKING	SIOUX CENTER	128	120	576	0	WELL #1	G					0	0	0	
						0	WELL #2	G					0	0	0	

CO	FACILITY NAME	CITY	POPL SRVED	AVE PROD	MAX PROD	MILES	SOURCE NAME	S	Q1	Q2	Q3	Q4	SEC	TWN	RNG	D
84	SOUTHERN SIOUX RURAL	IPETON	[illegible]	[illegible]	[illegible]	[illegible]	WELL # [illegible]	[illegible]					[illegible]	[illegible]	[illegible]	
						[illegible]	WELL # [illegible]	[illegible]					[illegible]	[illegible]	[illegible]	
						[illegible]	WELL # [illegible]	[illegible]					[illegible]	[illegible]	[illegible]	
						440	WELL # 4 (1989)	G					0	0	0	

Nitrate in Private Wells



(over 63,000 samples tested for nitrate - 1980-87)
(data supplied by Hygienic Laboratory - University of Iowa)