

Brookings County Conservation District (No. 36)

Brookings County lies in the Big Sioux Valley, just north of the second standard parallel and in the first tier of the counties west of the Minnesota-South Dakota state line. Surface drainage is provided by the Big Sioux River and its several tributaries, flowing through the county from north to south through the central portion. Topography of the area ranges from undulating to nearly level with a small area of rough land toward the northeast part of the county. Soils range from silty clays to silty clay loams, silt loams and loams. Generally, the soils are well drained except toward the west where there are lakes and some potholes. The soils are well suited to general farming with attention given to soil and water conservation and fertility maintenance practices.

The first settlement was at Medary in 1857 but was soon driven out by the Native Americans. In 1869 the same area was permanently settled and the county organized in 1871. The first settlements were along the streams where they found ample water and abundance of good grasses. These settlers came from farming areas and so they started farming here—first mostly small grains and then after World War I cultivated crops came into prominence. In the 1930's, erosion began to show its ugly face, both wind and water erosion, and some people became concerned. This brought about the organization of the Soil Conservation Service (SCS) and Soil Conservation Districts. The Brookings County Soil and Water Conservation District was organized in December of 1944 and at that time included only four townships lying east of Range 51. In July of 1948, the balance of Brookings County was included in the Conservation District to bring the total area to about 800 square miles or 514,529 acres.

Soon after the original Conservation District was organized, a program of work was prepared by the appointed Board of Supervisors. The original supervisors were: James Biggar, Brookings, chairman; Glenn Felt, Brookings, vice chairman; Walt Lunden, Volga, treasurer; B. E. Albaugh, Elkton; and Walt Lievan, Aurora.

Problems identified by the Conservation District were: soil erosion, lack of stable cropping systems, pasture and grassland depletion, some lands needed to be re-grassed, noxious weeds, woodland planting and management are needed, flooding on some land, lack of adequate water supplies, lack of stable feed supply, many farmers lack proper equipment, technical guidance is needed. Solutions to these problems were also addressed by using the following practices: contour strip cropping, conservation cropping systems, terracing, grassed waterways, pasture and hay land planting, proper range and pasture use, tree planting, stock water development, wildlife habitat, land leveling, irrigation systems and irrigation wells.

Today we are still faced with some of the same old problems and continue to address these issues by encouraging and informing landowners, operators and units of government in Brookings County of their responsibility to properly manage their soil and water resources and to encourage the application of best management practices that are effective, economically feasible and tailored to each individual land user's needs. In 2011 priorities identified by the Conservation District were:

Crop land

1. Soil Erosion –sheet and rill erosion
2. Soil Erosion – ephemeral gully
3. Water Quality – excessive nutrients and organics
4. Fish & Wildlife – inadequate cover/shelter
5. Water Quantity – Insufficient water use on irrigated land.

Grazing land:

1. Domestic Animals – inadequate quantities and quality of feed and forage – introducing improved varieties of forage species
2. Inadequate Water Sources
3. Water Quality – excessive nutrients and organics
4. Plant condition – noxious and invasive plants
5. Domestic Animals – inadequate shelter

Headquarters land

1. Water Quality – excessive runoff
2. Domestic Animals – Nutrient Mgt. – waste storage
3. Inadequate Shelter
4. Air Quality
5. Biomass carbon credits and energy efficiency

On May 23, 1996, a resolution was filed with the Secretary of State to change the name of the Conservation District from Brookings County Soil and Water Conservation District to the Brookings County Conservation District.

In 1949 there were approximately 1,924 farms in the county comprised of 363,315 acres of cropland. Today there are 986 farms comprising 351,302 acres of cropland and 111,276 acres of non cropland (pastures, building sites, wildlife areas and conservation easements). The average cost of land in 1949 was approximately \$65 to \$95 per acre. Today's land prices vary widely and can cost on average from \$4000 to \$8000 per acre for crop ground and \$1,500 - \$2,500 per acre for pasture ground and continue to rise rapidly. Average farm size in 1949 was 255 acres compared to today's average farm size of 469 acres.

The average precipitation in Brookings County between 1940 and 1944 was approximately 27 inches and between 2005 and 2009 was approximately 22.5 inches. The average over the last 120 years was 21.5 inches; with a low of 10 inches in 1933 and the high in 2010 of 39.8 inches. Today, both rural and urban property owners are faced with water management issues such as tile and drainage.

In the early 1970's, wind erosion was a familiar site in Brookings County. As a result of wind erosion, much soil changed hands without the formal exchange of deeds. Conservation practices to control wind erosion were applied to the land such as strip cropping, mulch tillage, contour farming terraces, grassed waterways, diversions and dam/dugouts. The 70's also brought about the formation of several watershed districts: Six Mile Creek Watershed, Oakwood Lakes Watershed and the Lake Hendricks/Upper Deer Creek Watershed.

In August 1980 the conservation districts of Brookings, Hamlin and Kingsbury Counties entered into a cooperative agreement to be the sponsoring agencies of the Oakwood Lakes-Poinsett Rural Clean Water Program area. This was a pilot project and was one of two in the nation monitoring the effects of conservation practices on the surface and ground water.

Quoted from a 1983 Conservation District Chairman's Report, "we should be careful not to let discouragement caused by the present economic difficulties cloud our attitude toward the future. There are many effective conservation practices which not only save soil, but also reduce costs while maintaining production. These practices can enable us to survive the present, as well as conserve our natural resources so that we can remain productive when better times come".

Flooding was a big problem in Brookings County in 1984. Heavy June and October rains did much damage throughout the county. The excess moisture made evident the need for more conservation practices.

A modern soil survey can help land users make the best use of their land. Brookings County utilized a 1959 published soil survey to assist with land management until the new and current survey was published in 1995. The major field work for the survey was completed in 1994 and the soil names and descriptions were approved in 1995. The new soil survey provides additional information and greater detailed soil maps.

1990-2011 brought about special projects within the county. Many of these projects were watershed assessments and implementation projects including the Lake Hendricks/Upper Deer Creek Watershed Project, Lake Campbell/Battle Creek Watershed Project, Central Big Sioux River Watershed Assessment Project, North Central Big Sioux River/East Oakwood Lake Assessment Project and the Central Big Sioux River Implementation Project. These projects were made possible by obtaining local, county, state and/or federal funding.

As livestock operations increase in size and animal concentrations, a trend expected to continue, there is a growing public concern over the environmental impacts such production facilities may have on the surrounding landscapes. The public reaction to the perceived erosion of air quality of these farms is heightened and there is a gathering resistance to the building of these facilities. During the years 2007 and 2008, the Brookings County Conservation District participated in a Tree Research Project with Moody Conservation District, SDSU and the SD Division of Resource Conservation & Forestry on "The Influence of Windbreaks on Farm Hydrogen Sulfide Reduction".

On October 23, 2008, the Brookings Conservation District, in partnership with the City of Brookings, created a City Tree Bank, which was endorsed by Governor Mike Rounds. With the help of a \$25,000 grant from the office of Governor Rounds, nearly 1,000 trees were planted on land near the Brookings airport. These trees will provide replacements and/or new plantings on public property in Brookings and other communities within Brookings County.

In 2005, the Conservation District purchased 5 acres of land from the Eastern SD Soil and Water Research Farm, Inc. located at 130 42nd Street (north of Hwy 14 by-pass) to build a new Conservation District building. The 60' x 130' building was completed in 2007. A 30'x32' refrigerated area has ample space to store seedlings for the Conservation Districts large tree planting program. It also hosts a large office area, restrooms, a heated shop and an equipment storage area.

The Conservation District, along with East Dakota Water Development District and South State University (SDSU), has been hosting the annual Big Sioux Water Festival, which will be the 20th annual festival in May 2012. The Big Sioux Water Festival has been providing fourth grade students from within a ten county area the opportunity to learn about water in the form of activities, presentations and exhibits. The festival, held on the campus of SDSU, regularly draws over 1,000 students. We hope the Festival helps students understand the difficulties that they may encounter in the future as they become caretakers of our water resources.

Other youth activities the Conservation District promotes is the Arbor Day Essay Contest, Conservation Speech Contest, Conservation Poster Contest, SDACDE Karst Memorial Scholarship for students going into an ag-related field, and provide Soil Stewardship materials

to Brookings County churches. The Conservation District also sponsors a Land Judging school every fall for FFA students from several surrounding schools.



Land Judging



Big Sioux Water Festival

Along with time, also came the need to advance into the age of technology! In 2005, the Conservation District implemented a web site to use as an effective tool to relay their conservation message and to advertise their services (www.brookingsconservation.org).

To help producers with their conservation efforts, the Brookings County Conservation District offers tree planting, tree fabric, tree site preparation, hand plant tree seedlings and other tree planting products; two grass drills for seeding cool and warm season grasses, mechanical and chemical weed control.

We can look back at many years of soil and water conservation progress since the Dust Bowl of the 1930's. Our challenge today remains the same – to maintain and continue the efforts to ensure the conservation, stewardship and wise use of the natural resources.

Those currently serving on the Brookings County Conservation District Board and Staff: Wayne Berkland, Chariman, Volga; Joel Koch, Vice-Chariman, Elkton; Jerry Oines, Treasurer, Brookings; Darrell DeBoer, Supervisor, Brookings; Charles Zink, Supervisor, Brookings; Robert Rochel, District Advisor, Elkton; Kirk Steege, District Advisor, Volga; Mark Stime, District Advisor, Sinai; Joan Kreitlow, Office Manager; Jon Finnegan, Conservation Resource Specialist.

Total Acres of Tree Planting Through the Decades

Decades	Field Windbreaks	Farmstead & Feedlot Windbreaks	Renovation	Wildlife	Other Sites	Total	Farm Sites
1944-1949	8.1	221.8	0.0	0.0	2.0	231.9	187
1950-1959	173.4	552.4	0.0	0.0	86.0	811.8	449
1960-1969	231.1	529.3	0.0	0.0	85.7	846.1	487
1970-1979	328.6	636.8	148.4	0.0	142.4	1,256.2	1,129
1980-1989	246.9	321.8	197.7	32.1	186.6	985.1	2,050
1990-1999	166.8	196.3	26.6	286.4	176.5	852.6	391
2000-2009	280.1	222.2	9.9	275.9	411.9	1,195.7	391

Supervisors who have served on the Brookings County Conservation District Board:

James Biggar	1944 – 1953		
Bert Albaugh	1944 – 1953	Richard Intermill	1981 – 1986
Walter Lunden	1944 – 1955	Arlen Peirce	1981 – 1984
Charles Syre	1944 – 1947	Marvin Antonen	1985 – 1990
Walter Lievan	1944 – 1947	Earl Pomrenke	1989 – 1991
Glen Felt	1944 – 1965	Gary Johnson	1989 – 1990
Norvald Trooien	1948 – 1956	Marilyn Murphy	1991 – 1992
Al Aho	1948 – 1975	John Mills	1991 – 1993
Wyatt Doop	1952 – 1959	Mark Stime	1987 – 2010
James Cheatham	1952 – 1959	Mark Stime (advisor)	2011 - current
Chris Thompsen	1954 – 1956	Robert Rochel	1987 – 2000
Robert King	1956 – 1968	Robert Rochel (advisor)	2001 – current
Arland Raad	1947 – 1965	LeRoy Patrick	1992 – 1996
Delmer Miller	1959 – 1966	Peg James	1993 – 2004
Harold Hartenhoff	1965 – 1970	William Gibbons	1994 - 2004
Robert Foster	1966 – 1978	Jon Hall	1997 – 2000
Harley Selken	1966 – 1968	Tim Gutormson	2000 – 2001
Walter Iverson	1967 – 1973	Tim Gutormson (advisor)	2001 – 2010
Richard Kleinjan	1967 – 1976	Jerry Oines	2001 – current
Lloyd Beckman	1969 – 1976	Warren Thompson	2001 – 2003
Duane Ellis	1971 – 1978	David Rusten (advisor)	2004 – 2005
Robert Roelfson	1974 – 1975	Wayne Berkland	2005 – current
Robert Revell	1974 – 1975	Darrell DeBoer	2005 – current
Earl Peterson	1978 – 1988	Charles Zink	2005 – current
Steve Goodfellow	1978 – 1980	Joel Koch	2011 – current
Terry Hill	1979 – 1986	Kirk Steege (advisor)	2011 – current
Richard Motter	1979 – 1988		