

Lake County Conservation District (No. 51)

History from 1969 publication:

Lake County is located in the southeast part of South Dakota, northwest of Minnehaha County and is an excellent farming area. This County was created in 1873 and the settlers moved in so fast that it was organized the same year. In 1877 a Swiss colony settled around Lake Badus and Norwegian colony of farmers settled in Nunda.

A large portion of the county drains into the east fork and the other branches of the Vermillion River and eventually into the Missouri.

The topography ranges from undulating to nearly level with poor drainage on the low and flat areas. These areas are occupied by lakes and sloughs. The soils of the area range from silty clay loams, clay loam, silt loams, and loams. These soils are well suited to general farming with cash grains and cultivated crops along with livestock production, and need to be supported with water control and fertility maintenance practices.

Some of the water resources found by the early settlers were lakes that were clear and much deeper than they are today. These lakes were well stocked with fish. There was an abundance of protection and natural habitat areas for wildlife such as ducks, prairie chickens, geese, etc. The land was covered with luscious growth of native grasses.

Resources such as wildlife habitat areas were being destroyed by intensive farming. This has depleted wildlife to a dangerous low in the county. The fertility of some fields has been depleted to the extent that poor crops are grown due to poor management.

Many of the early settlers that came to Lake County from other states and foreign countries brought with them knowledge of soil and water problems. These settlers that were familiar with these problems did practice good rotations, planting of trees, and the use of legumes.

In 1946 several farmers in the southeast part of the county requested assistance to lay out contour lines and some help with tree planting. This was the actual beginning of establishing conservation practices with the Garrett Spawn farm as a demonstration. Soon after that, the county extension agent and some of the farmers were able to obtain the services of the Minnehaha Conservation District to bring their tree planter over and plant some trees as a farmstead windbreak. These activities seemed to indicate an interest in the organization of a conservation district, and so the matter was discussed with the County Crop Improvement Association and some farmers. As a result, several attempts were made to organize a conservation district, but failed. The first successful attempt to organize a conservation district around Wentworth was in 1951. Then in 1953, the remaining townships joined the Conservation District.

The local men to be credited with the organization of the Lake County Soil and Water Conservation District are: Garrett Spawn, Chester; Claude Myers, Chester; W.O. Daniel, Wentworth; Fredrick Krueger, Madison; Lester Stratton, Wentworth; Virgil Erickson, Madison; Harry Morrill, Madison; Howard Schultz, county agent; Clarence Schladweiler, Madison; R.H. Gardner, vocational Agriculture Instructor, Orland.

Some of the problems that needed to be solved in the county were wind and water erosion. Assistance was needed in planning and planting field and farmstead tree plantings.

Excess water running off the slopes caused erosion and loss of plant food. The soil, washing from the slopes, was causing silting in the lakes. Assistance was needed in encouraging farmers to apply moisture conservation practices such as contour farming, terraces, grassed waterways, and improved rotations.

The practices the supervisors proposed to use to solve these problems, and the amount established as of 1965, included:

Contours and contour strip cropping --	24,560	acres
Terraces	84	miles
Grassed Waterways	1,189	acres
Pasture management & Plantings	17,576	acres
Contour pasture furrows	1,890	acres
Dams & Dugouts	514	
Tree Plantings	4,936	
Conservation Rotations	143,200	acres
Proper pasture use	20,000	acres
Wildlife habitat development	3,500	acres
Drainage	4,938	feet

The Conservation District is interested in, and has participated in, many activities, such as: Soil Stewardship Week; Goodyear Tire & Rubber Company Award -- 1955 - 2nd place, & 1956, 1967, & 1968 1st place; Sioux City Chamber of Commerce and Journal Tribune Award – winner 7 times; Assisted with the organization of the Vermillion Watershed and Skunk Creek Watershed; Loaned \$1,500 to help establish the Erosion Research Farm northwest of Madison

The first Supervisors were: Claude Myers, Chester; Fredrick Krueger, Madison; Virgil Erickson, Madison; Lester Stratton, Wentworth; and W.O. Daniel, Wentworth. Among others who have served as supervisor are: Harry Morrill, Madison; Harold Black, Madison; Clifford Hodne, Winfred; Walter Potas, Chester; and Vernon Schroeder, Ramona.

The 1969 Supervisors were Vernon Schroeder, Ramona, Chairman; Vernon Spartz, Madison, Vice chairman; Claude Myers, Chester, Treasurer; Mrs. Alden Erstad, Madison, Secretary; Clifford Hodne, Winfred, Supervisor; Walter Potas, Colman, Supervisor; and Fredrick Krueger, Madison, Supervisor.

Updated information provided in 2012:

Since the last history for Lake County Conservation District was published in 1969, the Conservation District has been represented by many Lake County residents. Conservation District Boards also include an Urban Supervisor, as the Conservation District represents the urban residents as well as the rural residents of the county. Those serving Lake County Conservation District since 1969 include: Vernon Schroeder; Vernon Spartz; Clifford Hodne; Walter Potas; Fredrick Krueger; Eugene Boer; Roger Reiff; Orland Olson, Dick Palmatier; Dale Slaughter; Joan Krantz; Myron Plack; Steven Strom; and Chris Johnke. The current Board of Supervisors includes: Carolyn Rudebusch, Roger Albertson, Craig Johannsen, Alan Schaefer, and Jim Hildebrandt.

Lake County Conservation District employed several persons through the years to assist landowners and operators within the Lake County Conservation District. The Conservation

District employees have included: Claude Myers thru 1974; Dorothy Mauf from 1975 thru Sept 1978, Lois Hinman from October 1978 thru May 1979; Lucille Miller from June 1979 thru September 1986, Michelle Goodale from September 1986 to Current



Seated from left: Jim Hildebrandt, Roger Albertson, Alan Schaefer, Craig Johannsen, Carolyn Rudebusch, and Michelle Goodale

The Lake County Conservation District works in cooperation with the USDA/Natural Resources Conservation Office, and many Soil Conservation Service/Natural Resources Conservation Service staff people have assisted Lake County Conservation District throughout the years. Some of the District Conservationist personnel were: Maury Nold until 1974; Merle Kost thru 1975; Oakley Hoy 1976 thru October 1980; Clair Welbon November 1980 thru 1989; Charles Lebeda 1990 thru Dec 2011; Lynsee Planting February 2012 and continues to serve as DC. Other SCS/NRCS staff serving Lake County Conservation District included Ron Adamson, Technician, serving til July, 1987. Gary Kirschman came on as technician in 1988. Retha Thrun currently serves in the position of Technician since 2004 with the Madison NRCS office. Other SCS/NRCS personnel serving Lake County Conservation District in various positions include: Joy Cordier, Mark Benton, Aaron Jarvis, Darrell Granbois, and Lynsee Planting, who started as a Soil Conservationist in November 2006, prior to taking the District Conservationist position in February, 2012, and Tabithia Christner currently serves in the Soil Conservationist position since June, 2012.

Other employees that have served with the Madison Field Office under special agreements include: Richard and Janney Phelps, Ken Harmdierks, Rae Lynn Maher, Carol Nelson, Suzanne McCloud.

The Lake County Conservation District provides a wide variety of assistance to its residents, and works closely with the USDA/NRCS Office to provide assistance to all of its residents. The NRCS can supply technical assistance as well as some financial assistance through various

USDA programs. NRCS and the Conservation District have assisted in the design and construction of miles of terraces and waterways, filter strips, acres of grazing systems and cross-fencing, pasture seedings, dugouts, pipelines and tanks for livestock water, and construction of livestock waste systems.

The Lake County Conservation District provides assistance to local land owners and operators in implementing many different conservation practices. One of the most enduring services Lake County Conservation District provides is tree planting services. Since Lake County Conservation District originated, we have planted approximately 4,324 acres of trees, which is the equivalent of 2,010,765 trees.

In 2010, the Lake County Conservation District started a new service related to tree planting, when the Conservation District started laying fabric mulch on tree plantings as a custom service. This has become a very popular service with the customers of Lake County Conservation District, as the fabric mulch controls the growth of competitive weeds and grass on the in-row area of the tree rows, and helps the newly planted trees maximize their rate of growth.

Prior to the popularity of fabric mulch on tree plantings the Conservation District provided in-row cultivation services for the purposes of weed control in the row of tree plantings. This was gradually phased out as the fabric mulch gained greater popularity among the Conservation District's tree planting customers. In the past 30 years the Conservation District was fortunate to have the services of two local retirees who served as the foreman to the tree planting crew, and also ran the weed badger for in-row cultivation services. The first was Richard Phelps, and then Merlin Riedel served in those positions when Phelps retired from Conservation District.

The Conservation District also provided custom drilling services from 1998 thru 2004, and then leased the drill to producers to do their own seedings from 2005 thru 2009. During this time frame more than 5,000 acres of grass was seeded, and the majority being for the Conservation Reserve Program. Marv Hopf was the custom operator of the grass drill during the years when custom seeding was provided. The Lake County Conservation District has seen a number of changes in technology and agriculture, and there has been a number of Conservation Projects in Lake County since the last history written for Lake Conservation District. Lake County has been blessed by many valuable resources, which includes soils that are very well suited for agriculture and raising crops and livestock, along with a chain of three lakes which provide valuable recreation, such as fishing, boating and state parks with camping. The three lake shorelines have developed into valuable property for homes and development, as well.

Since Lake County's lakes are a valuable environment and economic resource, there have been several projects that have developed to improve these bodies of water. During the 1970's a project developed around the Lake Herman Watershed. There was significant local support and interest in restoring Lake Herman. Sediment/nutrient loading had become a serious concern for Lake Herman. A number of alternatives were studied to determine the most effective method for treating sediment/nutrient loading into Lake Herman, including in-lake dredging.

In the early summer of 1978 a work plan was developed detailing objectives and goals and agencies to be involved. During this phase of the Model Implementation Program (MIP), it was determined that the most effective method for treating the sediment/nutrient loading issues in Lake Herman was the construction of several drawdown type sediment control structures and the application of "Best Management Practices"(BMP's) out in the drainage area. Actual in-lake restoration by dredging was also considered and was later included as a second phase of the

Lake Herman MIP project. The City of Madison was the primary sponsor for the dredging project that occurred in the 1980's.

Funding through the Agricultural Stabilization and Conservation Service, a division of USDA, was allocated to assist landowners in the application of BMP's in the Lake Herman watershed. In the spring of 1978, Soil Conservation Service and the Conservation District began an intensive effort to provide technical assistance to apply as many conservation practices to the land as was practical. In December of 1978, EPA notified the Lake County Conservation District that a 314 grant application had been approved, and the plans moved forward to develop and construct sediment retention structures in the Lake Herman Watershed, with the Conservation District serving as the sponsoring local agency. It was also determined through the planning process that three sites had been selected for the purpose of constructing sediment retention structures.

In the first part of 1979, land right easements were secured, and the Conservation District contracted for archeological surveys on all sites. MIP structures #1 & #2 were completed in June 1980, and construction of MIP Dam #3 was completed in 1981. These 3 sediment retention structures are still operating. Lake County Conservation District continues to monitor and maintain these three structures.

The initial completion of the MIP project was just the beginning of several special projects that Lake Co Conservation District would sponsor over the years. In March, 1992, the Lake Herman Phase III Post-Implementation Study of the Lake Herman Watershed was initiated. The purpose was to reassess the three sediment control structures and determine the long term effects of the MIP project. Water quality monitoring was conducted on eleven sites within the watershed and three in-lake sites. Non-point resource data was collected from March thru October of 1992 and March thru August of 1993. The information generated from this study was used to establish the Total Maximum Daily Loads (TMDL) as was being required by the EPA for all bodies of water, and based on their associated uses. When this study was nearing completion it generated an additional study in the chain of Lakes in Lake County.

This next water quality study in Lake County would be on Lake Madison and Brant Lake. These two lakes also needing a "TMDL" established for EPA. In 1994, a lake and watershed water quality assessment study was initiated for the watersheds of Lake Madison and Brant Lake. The main components of this study consisted of in-lake water quality monitoring, and tributary monitoring, storm sewer monitoring, ground water monitoring, and land use assessment. The results of this study recommended a 50% reduction of phosphorus loadings and this was used to establish a "TMDL" goal for all three lakes, as phosphorus was identified as the contributing factor for algae blooms in the three lakes. Funding for a Water Quality Implementation project was awarded in 2000. Some Federal funding was provided by EPA and USDA, and some state funding was provided by DENR and the S.D. Dept of Agriculture, in addition to local funding of which the largest portion was provided by landowner match, in addition to funding match provided by other local units of government and local organizations.

This project targeted installation of Animal Waste Systems in the watershed areas in an attempt to reduce the phosphorus loadings into the three lake systems, and when the project was completed in February of 2006 a total of eight Animal Waste Systems had been constructed, in addition to construction/installation of waterways, terraces, and filter and buffer strips. The project also incorporated a strong information and education program to lake and city residents promoting the use of zero phosphorus fertilizers on resident's lawns. Some of this information and education program has been carried forward by the Lake Associations themselves.

Lake County Conservation District sponsored a unique project on Lake Madison and Brant Lake. As the result of a severe storm event that occurred on July 3, 1993, both Lake Madison and Brant Lake suffered severe flooding, which caused serious bank erosion on large portions of the shoreline on Lake Madison and Brant Lake.

Lake County Conservation District applied for a grant from FEMA to assist in mitigating and repairing damage to shorelines on both Lake Madison and Brant Lake. A grant for each of the lakes was approved and Lake Co Conservation District sponsored a shoreline mitigation/restoration project, and assisted property owners on the two lakes with engineering and construction assistance installing rip-rap on these severely damaged shorelines.

During the course of the project, 4700 linear feet of shoreline was stabilized on Lake Madison, and on Brant Lake 1,633 linear feet of shoreline was stabilized. The grant provided 75% cost-share assistance for each of these two projects. The total cost of the two shoreline projects was approximately \$1,077,418, with 25% of the cost of restoration being paid by the landowners.

Lake County Conservation District is continuing in their ongoing role in water quality improvement by their participation in other water quality projects such as the Vermillion River Watershed Project and the Central Big Sioux Watershed Project.

Lake County Conservation District annually sponsors the local level of the Resource Conservation Speech Contest for grades 9-12, which offers scholarships to the winners at the state level of the contest. The Conservation District also sponsors the local level of the Arbor Day Essay Contest for grades 5 & 6, and forwards the local winning essay to the state contest.

Lake County Conservation District also has a continuing role in agricultural research in the eastern part of South Dakota. Lake County Conservation District shares responsibility of oversight of the Eastern South Dakota Soil & Water Research Farm with fourteen other conservation districts in eastern South Dakota. They include: Brookings, Codington, Clark, Day, Deuel, Hamlin, Kingsbury, Lincoln, Marshall, McCook, Minnehaha, Miner, Moody, and Turner County Conservation Districts.

The original research farm for this area was located northwest of Madison, SD until 1987. The original farm was sold, and a new 80 acre parcel was purchased north of Brookings, so that the research farm could be relocated to a closer proximity to the research laboratories. In 1999, the Board of Directors also purchased an additional 70 acres to add to the research farm. The purpose of the Eastern SD Soil & Water Research Farm is to find solutions to national and regional concerns related to soil and water conservation and the efficiency and sustainability of agricultural production. The goals for the research farm are to conduct research and provide technology transfer in areas that are directly or indirectly related to clean water, clean air, soil stewardship, and sustainable agriculture.

Lake County Conservation District continues in its ongoing role to promote conservation of all our natural resources, and to provide ongoing assistance to all of the residents of Lake County, SD to conserve and preserve all of Lake County's valuable resources.