IV. Objectives of the Watershed District

A. The Concerns of the Petitioners for a Watershed District

On March 5, 1968, seventy-six resident freeholders living within the territory of the Belle Creek Watershed area petitioned the State of Minnesota for the establishment of a Watershed District. Some of the general reasons stated by the freeholders in their petition for the need of the watershed district were:

1. A means of conserving and making provident use of the waters and other natural resources;
2. The reduction of damage by flood water to land, fences, roads and public utilities;
3. The reduction of sediment deposits by flood waters;
4. The improvement of the channel of Belle Creek for public purposes; and
5. For the reduction of soil erosion with its attendance damage to productive land, farm ponds, and watercourses.


In February 1970, the managers said the establishment of the Belle Creek Watershed District was sought with a number of objectives in mind, which would be of benefit to the community and to individual property owners. These objectives were:

1. Reduction of floodwater damage;
2. Reduction of sediment damage;
3. Reduction of gully erosion;
4. Reduction of streambank erosion;
5. Change in land use of bottom land;
6. Improvement of habitat for fish and wildlife;
7. Reforestation and forest management;
8. Possibility of recreational development;
9. Provide clean water.

C. Current Objectives

The managers of this plan revision list their general objectives and also suggest a number of tasks, though not limited by the list, which could accomplish these objectives:

1. To control or alleviate damage by flood waters:
   a. Apply and retain proper land treatment measures on agricultural land;
   b. Apply adequate land cover on non-agricultural land and maintain therein;
   c. Install land cover adjacent to all watercourses;
   d. Retention dams and reservoirs to be installed at available sites;
e. Bridges and culvert openings to be properly sized;  
f. To properly maintain all installed structures on an annual basis.

2. To improve stream channels for drainage and any other public purpose:
   a. Removal of silt deposits and debris from drain systems and watercourses;  
   b. Provide for an even water flow in channels by regulating outflow of dams and reservoirs where feasible;  
   c. To reduce streambank erosion with special attention to serious eroding sites along Belle Creek and other watercourses;  
   d. Encourage grass strips along all channels and watercourses.

3. To protect wet and overflowed lands:
   a. Where proper agricultural practices are possible and the land is needed for production of food, reclaim land damaged by overflows. If not suitable for agricultural purposes, use such land for the purpose most suitable, such as pasture or wildlife areas;  
   b. Encourage the entry of this land into government programs for wildlife habitat, and proper land cover.

4. To provide water supply for irrigation:
   a. Watch with care the use of aquifers for irrigation;  
   b. Require a District permit for ground water use for irrigation;  
   c. Set high standards for new well construction; cause all wells not in use to be properly maintained.

5. For regulating the flow of streams and conserving the waters thereof:
   a. Provide for additional water retention sites, if available;  
   b. Install and operate needed hydrological devices;  
   c. Protect the banks of natural and artificial watercourses from erosion.

6. For diverting or changing watercourses in whole or in part:
   a. Examine thoroughly the need for changing watercourses, if requested.

7. For providing and conserving water supply for domestic, industrial, recreational, agricultural, or other public use:
   a. Promote land treatment measures and land cover conducive for game habitat;
b. Institute a program to insure proper water quality throughout the District;
c. Promote land treatment measures and land cover to restrict siltation of and the pollution of watercourses.

8. For providing for sanitation and public health and regulating the use of streams, ditches, and watercourses for disposing of waste:
   a. Promote land treatment measures to minimize siltation and pollution;
   b. Cooperate with and enforce the rules of the Minnesota Pollution Control Agency as to operation of septic tanks;
   c. Cooperate with proper county officials to monitor livestock feedlot locations, construction, and operation;
   d. In cooperation with other governments, institute an investigation of water quality to insure "safe" drinking water;
   e. Promote the proper use of herbicides and pesticides by the home owner and the agricultural products;
   f. Promote, require, and inspect proper farm and community sanitary systems;
   g. To minimize the discharge by anyone of floatable waste material, settleable solids, and oxygen demanding organic wastes into the waters of the state.

9. Install, repair, relocate, improve, modify, consolidate, or abandon in whole or in part, drainage systems within the watershed:
   a. Cause a study of the hydraulic effect of any proposed drainage system in the District to be made;
   b. Where excess water removal is not being attained, investigation will be made; and, where improper engineering of channels and bridges has occurred, corrective measures will be taken.

10. For imposition of preventive or remedial measures for the control or alleviation of land and soil erosion and siltation of watercourses affected thereby:
    a. Promote proper land treatment measures including vegetation cover to reduce the amount of soil particles and sediments from entering watercourses in the District;
    b. Require protection of the banks and shoulders of natural and artificial watercourses;
    c. Require the installation of silt traps at beneficial locations;
    d. Provide for the removal of silt from pool sites behind structures;
    e. To reduce and prevent soil losses of the land in excess of established soil loss tolerance.
11. For regulating improvements by riparian owners of the beds, banks, and shores of lakes, streams, and marshes to preserve the same for beneficial use;

   a. Discourage the drainage of low wet lands and provide for their preservation.

12. Provide for the generation of hydroelectric power.

13. Protect or enhance the quality of water in watercourses or bodies of water;

   a. To reduce the amount of phosphorus and nitrogen entering the watercourses of the District.

14. Provide for the protection of ground water and regulating ground water use to preserve ground water for beneficial use.

   a. Encourage proper application of agricultural chemicals on fields and on livestock by farmers;
   b. That the location of sinkholes be determined and that proper filling of the site be undertaken. The use of debris and waste material to fill the site is not allowed;
   c. The use of below surface tanks for storage of petroleum or chemical products is discouraged.
VII. Summary of Our Watershed District's Activities - 1968-1989

The statute requires a statement setting forth the extent to which the purposes for which the Watershed District had been established, have been accomplished.

In this section of the revised Overall Plan we record the highlights of what we have done, an analysis of progress as to our purposes, and about the forum which we provided residents with water problems. Our statement of accomplishments:

A. Highlights

In late 1968 the Board of Managers was organized and the operation of the Belle Creek Watershed District began. The managers, with the assistance of the office of the Water Resources Board, familiarized themselves with the Watershed Act and of the status of a federal agency Work Plan for the Belle Creek Watershed prepared under the authority of PL 566. An attorney was employed.

By the middle of 1969 the managers had appointed an advisory committee and adopted an Overall Plan in accordance with the law. After a public hearing in the Belle Creek Gardens facility in October 1969, the Minnesota Water Resources Board prescribed the initial Overall Plan for the District on February 25, 1970.

In the federal system, the Minnesota Soil Conservation Service planning party, with its office in St. Paul, began planning a solution for the problems of the Belle Creek Watershed. Planning by this federal agency for Belle Creek was authorized in August 1965, but actual assignment of manpower to the task took place about 1967. After numerous gatherings with local sponsors and people, an approach providing a possible solution of Belle Creek problems was determined. A document, titled "Work Plan" providing narrative description, engineering, and cost estimates was submitted by the SCS State Conservationist to his federal office in the USDA in Washington, D.C.

By March 1972 the federal government had approved the Work Plan for Operations.

From the middle of 1969 local leaders began procedures under the Minnesota Watershed Act to bring about the installation of the elements of the proposal found in the federal Work Plan.

During the early years of the 1970s the managers accepted a petition for installation of the units in the federal Work Plan, conducted hearings, appointed appraisers, determined lands beneficial and damaged, secured land easements and necessary rights-of-way, made payments to those persons damaged, borrowed money from the Farmers Home Administration, issued necessary orders for establishment of the units of the Work Plan project, entered into project agreements with the SCS and signed an operation and maintenance agreement with the St. Paul office of the SCS. The managers were also involved with appeals to the undertaking of the project and to certain individual assessments. Appeals were settled.
either in court or in consultation with the affected parties and the managers.

In September 1976 construction began of R-4 floodwater retarding structure. Construction of four other floodwater retarding structures and two grade-stabilization structures continued through 1984. Construction of the elements in the Work Plan followed an installation schedule spread over seven years (related to availability of federal money).

From the 1978 annual report of the Watershed District:

"Second Quarter. July 1-2 brought the worst flood to the area in memory. Two men drowned and a young woman barely escaped with her life during the storm which dumped up to nine inches of rain in the district in a 24-hour period. Property damage soared to several hundred thousand dollars. Buildings, cars, trucks, cattle, fences, and machinery of all kinds were swept away and destroyed. At the July 3 meeting the town hall was crowded with at least 60 people compared to the usual four or five. There was intense interest in escalating the five-year dam project into a two-year project after seeing the benefits that the one completed dam provided. Later on that month an areal and ground slide presentation was shown at the Belle Creek Gardens. Vernon and Linda Vangsness along with Kenneth Axelson did an excellent job of showing slides revealing the tremendous force of the flood and the resulting damage throughout the district. The need for conservation farming and dams, both large and small, was never more apparent."

1982 was a wet year which delayed construction work.

The installation of the structures for water control as outlined in the federal Work Plan were completed in the spring of 1984. On July 14, 1984, a dedication ceremony of the project was held in the community of White Rock, on the west bank of Belle Creek, less than an eighth of a mile from a building where 20 years before, local people went to take action to solve their floodwater problems. Twenty years of planning, engineering studies, informational meeting parties, and construction activities finally placed a system of flood water control structures in place.

On September 15, 1986, the Watershed received seven inches of rainfall. The structures contained the flood water - no damage was done to the structures or the land. On September 23, 1986 the watershed experienced another seven-inch rain upon ground saturated from the previous storm. Again no damage was reported to the structures, roads, or the land.
B. A Statement About Our Purposes

The District began functioning as a new unit of local government in late 1968. The boundary of the Watershed District is placed upon the extremity of the land area described as its territory; a departure from a political boundary. Upon review of our performance, the Managers make the following statement:

First, it should be acknowledged that the leaders of Goodhue County and concerned citizens in Belle Creek watershed were concerned with floods in the Belle Creek Watershed, flooding of agricultural land, and the destruction of life and property caused by flood waters in the area with rapid decline in the gradient in the downstream direction.

Secondly, the managers recognized the objective, and means to achieve our goals were not carried out necessarily only by the managers. We acknowledge that other agencies and governments with natural resource programs exercised their responsibility. All of us, together with people in the Watershed District, and surrounding area, had input in the careful and proper control and use of its water and other natural resource, during the past twenty years. Among the leaders, groups, governments, and our residents, cooperation has been the guiding attitude.

1. The extent to which our objectives have been accomplished.

The District's original objectives are noted below by a. through i.

a. Reduction of Floodwater Damage:

(1) There has been a substantial reduction in floodwater damage to watercourses, crop fields, farm sites, roads, and bridges. The possibility of loss of life because of high flood flows through bridges has been removed:

Damages to fences, buildings and other agricultural items is reduced by 67%.

With the installation of floodwater retarding structures, the floodwater damages to crop and pasture is reduced by 52%.

b. Reduction of Sediment Damage:

With the installation of floodwater retarding structures, the destruction of cropland by floodplain scour is reduced by 52%. The project elements have also reduced sediment deposition in the Mississippi River channel.

c. Reduction of Gully Erosion:

Serious gully erosion has been stopped by the installation of two grade stabilization structures.
These structures prevented the complete destruction of 61 acres, further depreciation of 100 acres, and prevented the conversion to a less intensive land use of an additional 155 acres. Another 173 acres are safeguarded against the loss of outlets needed for conservation practices.

d. **Reduction of Streambank Erosion:**

Because of the installed floodwater retarding system, certain stretches of a number of watercourse banks have had their erosion reduced. Some roads and bridges approaches have less bank erosion with the system installed.

On the other hand, due to steep channel gradients, stream bank erosion will continue to be a problem in the lower reaches of the watershed.

e. **Change in Land Use of Bottom Land:**

Prior to the installation of the project elements by 1984, much agricultural land - not low wetland - had been overflowed because of floodwaters.

A narrow band of land along both sides of watercourses in the lower 2/3 of the watershed, in the past, were flooded every year, unless the year had much reduced precipitation. Along these watercourses cropland in some instances, became pasture land. Since 1985 some of the pasture land has reverted to cropland.

f. **Improvement of Habitat for Fish and Wildlife:**

Because of the federal project, control of floodwaters sediment damage in the Belle Creek channel has been reduced. Water quality has improved, bettering the habitat of fish in this stream.

The water impounded behind the five dams has provided some habitat improvement for wildlife. Since there is no permanent body of water at any dam site, wildlife habitat improvement at these sites is of a temporary nature.

g. **Reforestation and Forest Management:**

Some sustained yield management has been applied to 440 acres. Some removal of forest products have been undertaken by woodland owners. The planting of suitable trees species is desirable. Planting is recommended for land with steep topography, depleted fertility, and having erosion tendencies. This activity is to improve the hydrologic condition of such land and achieve better land use.
h. **Possibility of Recreational Development:**

In the early planning of works of improvement, consideration was given to recreational development for residents and visitors from outside the area. As planning progressed, the one multiple purpose floodwater retarding and recreation structure was found not to be economically feasible. The sponsors withdrew recreation goals as a result of detailed investigation showing that the present road system in the Watershed District was not adequate to handle the expected visitations to the area. Sponsors and other local interests did not have an interest to upgrade the road system.

i. **Provide Clean Water:**

Since the inception of the Watershed District twenty years ago, the managers have directed their attention to the problem of high intensity storms and flood water damage to life and property. The 1984 completion date of a federal "Work Plan" has greatly reduced this past occurrence.

At the same time the managers recognized the importance of clean water— that is, quality water for human use, for residential needs, and for livestock health. Ground water supplies in Minnesota are generally not polluted and are safe for human use.

Many landowners in the Watershed District are dairy farmers selling Grade A milk to dairy product handlers. Their water system, reaching into groundwater supplies, have to meet health specifications of the Minnesota Department of Health. We support this program.

Though our attention in the past has not focused on clean water, we intend to give much more attention to this need of our water supply.

2. **Discussion**

In reviewing the requirements of the Watershed Act as to this revised Overall Plan, we do not think that the Legislature expects the managers to find that they have accomplished some percentage of 100% of our objective. As to flood control, we have used some percentages as to flood reduction by a structure or the system of structures.

Our management approach does not call for a list of detailed location of structures, nor of land treatment location, estimated costs, and time tables. The law does not require the gathering of this detailed information for there is not provision for securing money to pay the costs. The Watershed Act provides a method for
undertaking a project when affected land owners indicate a need for an improvement.

Our government role, being a new public enterprise upon the landscape, needs understanding of its approach by many officials, as to water resources and associated natural resources management. The efforts of the managers has been supported by citizen residents and local leaders with some exceptions. We find the management of water concerns and related issues requires listening to involved persons and much time.

Effort through a cooperative project and rules have began the successful control of flood water. As to water quality, attention to individual waste treatment facilities and moves toward conservation tillage need emphasis. Much remains to be done in care of the land surface used for food and fibre production.

Constant attention to resource problems in cooperation with other local leaders and residents is a goal of the managers. From 1969 to 1990, the managers have been a group assigned the sole task of watching and governing of the water resources of the Watershed District. Twenty years is not a long time period to evolve a management approach to wisely use the Watershed District's water after over a century of little supervision of soil and water resources.
C. Projects Completed

Chapter 112 provides that after an Overall Plan of the District has been prescribed by the Water Resources Board, petitions may be filed with the District by interested groups, for any project within the District conforming in general with the Overall Plan. This law guides the contents of the petition, its filing, requirements of a bond, undertaking of an engineering report, public hearing, determination of who pays the cost, establishment of project by order of the District, receipt of bids, letting of contracts and supervision of construction. This process set forth in the law has been followed by the District. A federal cooperative Work Plan for Watershed Protection and flood prevention costing $4,298,774.00 and completed in October 1985. See paragraph III, C., 4.

D. Active, Planned and Future Activities

1. Current Projects

There are no improvements under construction in 1990.

2. Planned Projects or Studies

The managers do not have any proposals under investigation.

3. Actions Needed

   a. Channel Improvements

      (1) Clean out main channel of Belle Creek.

      (2) Streambank repair in the watercourses.

   b. Undertake trout stream improvement from Belle Creek Outlet to the NE½ of Section 4, Township 112 North Range 16 West.

   c. Secure easements to provide public access to Belle Creek for fishing.

   d. Inspect and clean out farm ponds.

   e. Locate and seal abandoned wells.

   f. Establish and maintain a hydrologic device at or near the mouth of Belle Creek.

   g. Undertake a study of septic disposal systems in the District.

   h. In cooperation with the Goodhue County Soil and Water Conservation District, begin an annual program to apply land treatment measures to land in need of sheet erosion control. The managers desire to put all tillable acres under a land treatment program.
i. The managers desire to see improved forestry practices on woodland and will encourage land owners to improve the hydrologic conditions of the woodland area.

E. Effectiveness of Rules

The enactment in 1955 of the Watershed Act provides and directs the managers to adopt rules to effectuate the purposes of the Act and to implement the authority of the managers. Rules were adopted in April 1971.

Because of the steep slopes in the watershed and the installation of the federal cooperative project, few water problems exist on the land. However, permit applications are filed with the Board and are acted upon by the managers. The residents of the Watershed District have benefitted from our administration of the rules and the general public well-being has been improved.

F. Maintenance of Our Project

As required by law, the managers have annually inspected the elements of their cooperative project. The structures are in good and proper condition. They accomplish the purposes for which they were constructed. The managers followed the law in maintenance procedures and caused necessary repairs to be made and costs paid. Repairs are made in accordance with our inspection report filed with the secretary of the Watershed District.

G. Closing Remarks

In this first revision of the Watershed District's Overall Plan, the managers have updated existing hydrological and statistical data; listed a completed project, described in general terms some future activities of our government, and discussed our accomplishments of the past 20 years. We have participated in local-regional-state meetings regarding natural resource management at which new ideas and approaches are discussed.

In the review of some of our annual reports, we note below some statements recorded by our secretary:

1976 "Kermit Bjorlie kept us informed about drilling progress on two of the five sites for big dams and also about possible sites for small dams."

1980 "The board met with the county commissioners for the final o.k. on the sale of the bonds."

"The 1977 budget was set up and the board voted to levy one mill of taxes for administrative purposes."

"Final inspection of R4 structure was certainly the highlight of the year for the board. The structure had been
completed and the weather ideal for sodding and seeding of the slopes."

"During the fall the board was finally able to overcome communication problems with Leon Township officials concerning their assessments....."

"Work was begun on the two S structures late in the summer, but wet fall weather hampered construction...The board was very disappointed with the amount of money being spent by SCS on the S-2 project..."

"The full board attended the tenth annual meeting of Watershed Districts in Alexandria in December, as well as other conservation meetings during the year. And found the many reports and seminars to be beneficial in the operation of Belle Creek Watershed District."

1981

"The board also met several times with the Leon Town Board and finally reached an agreement on the Robertson bridge, which was rebuilt in the fall."

1987

"The benefits of the structures already in place, are easily seen after each heavy rainfall and the residents of the district should be proud of the accomplishments made and the saving of life, soil, properties, and roads throughout the district for many years to come."

"1982 was rather a low key year for the Belle Creek Watershed District. Wet conditions and union problems made construction slow going."

"In September the board attended a county panel discussion on erosion and sediment controls. Most everyone in attendance felt some type of tax break incentives should be implemented to encourage farmers to do a better job of conservation farming along with some mandatory controls on erosion and sediment limits."

Dedication of the Project was scheduled for July 14, 1984.

"The day arrived for the dedication with nice weather. We had bus tours to each dam site with a guide on each bus."
"We had a dam inspection during the summer. We found everything in good order."

Flood water damage reduction has had secondary benefits to the Watershed District and surrounding area. Increased agriculture production has improved the buying power of the benefitted landowners and operators. Certain inconveniences to residents caused by flood water damage have been greatly reduced. School buses are not detoured; mail delivery is not interrupted; and, the movement of milk and other farm products remains on the usual route to market instead of a detour.

The District intends to achieve a balanced soil and water program to enhance its agricultural economy, the environment itself, and the well-being of its resident citizens. There is a constant necessity for awareness by the residents of the benefits of our water and soil. All residents must strive in an enlightened manner to properly use and assist in caring for all our natural resources.

This revised Overall Plan is not to be construed as a limitation on the actions and procedures that can be taken in achieving the above by the residents and the managers. As knowledge increases and so as not to foreclose any planning or action, although not set forth herein, to better the environment of this area, this Plan signifies within its scope any and all lawful and proper means to accomplish its purposes. Our actions will be in full cooperation with appropriate county, state, and federal officials.

As one of our objectives, the Managers wish to achieve a constant general improvement of the District's natural resources, its economy and of the well-being of its residents.