

IRRIGATION DEVELOPMENT AND IRRIGATION DISTRICTS

4/17/12

The first concerted effort to develop irrigation in North Dakota began in 1908 on lands near Trenton and Williston. These projects were designed and constructed by the then very new U.S. Bureau of Reclamation. Each of these projects diverted water from the Missouri River. At Trenton the land was on the Missouri River flood plain and at Williston water was diverted north for several miles in the valley of the Little Muddy River. These projects were operational about 1911 but due to a number of difficulties, operations were discontinued in about 1916. At this same time the Lower Yellowstone project between Intake and Fairview, Montana was also under construction. This project currently serves about 18,000 acres in McKenzie County.

The first irrigation district laws were enacted in 1917 and the authority to establish the districts rested with the respective county commissions. The record is unclear as to when the first irrigation districts were established. However, the oldest currently operating districts are found in McKenzie County. One is related to the North Dakota part of the Lower Yellowstone Project and the other is the Sioux Irrigation District located near Cartwright and it was established in the mid-1930's.

Two other irrigation districts formed in the late 1930's and early 1940's were the Buford – Trenton and Lewis and Clark. The Buford – Trenton Irrigation District was a project constructed by the U.S. Bureau of Reclamation and consisted of about 15,000 acres. Approximately, 5,000 acres was later purchased by the Federal Government for the construction of Garrison Dam. The district currently consists of approximately 11,000 acres. The Lewis and Clark District was a State Water Commission Project and it involved an area of about 5,000 acres on the south side of the Missouri River Valley on either side U.S. Highway 85. The entire project area was also later purchased to make way for the construction of Garrison Dam.

In the 1950's and 1960's several irrigation districts were formed to utilize water from the Missouri, Yellowstone, and Heart Rivers. In addition 12 districts were formed in conjunction with the Garrison Diversion Project which was in the advanced planning stages. With the exception of one district all were created to serve as the operating entity for projects being constructed by the U.S. Bureau of Reclamation.

Between 1992 and 2003, eight irrigation districts were created for a variety of reasons. The Turtle Lake Irrigation District was formed to serve as the operating entity for a Bureau of Reclamation project authorized by the 1986 Garrison Reformulation Act. The Elk/Charbon Irrigation District was designed to divert water from Missouri River to irrigate 5,000 acres in northwest McKenzie County. The Nesson Valley Irrigation District would have diverted water from Lake Sakakawea to irrigate about 7,500 acres in southeast Williams County. These projects have not been constructed. Other districts created, but not operational at this time are Eastern Dakota in Cass county, Northeastern in Grand Forks County, Big Bend in Oliver county, and Horsehead in Emmons county.

The Central Dakota Irrigation District in Kidder County was formed when the AVIKO french fry plant was under construction at Jamestown. The Kidder county area along with northwestern Stutsman County had the soil and water resources needed for the production of irrigated potatoes. A group of producers formed the district to take advantage of the financing authorities through which more favorable terms could be obtained than those available to an individual. A substantial percentage of the 18,000 acres developed in the area were financed through the Central Dakota Irrigation District. The development utilizes individual wells and center pivot irrigation systems.

The majority of the irrigation districts in North Dakota were created for the purpose of developing a central supply works to deliver the water to the individual farms. Many of the districts were to serve as the operating entity for Bureau of Reclamation projects. They include the Lower Yellowstone in McKenzie county (the oldest), the Buford – Trenton in Williams county, the Western Heart in Grant county, and Fort Clark in Oliver county. The Dickey – Sargent District is the operator of the Oakes Test Area in Dickey County.

The State Water Commission was the developer of the water supply facilities for the Lewis and Clark Project and the Sioux Irrigation District in the late 1930's and 1940's. Since that time, the Water Commission has not directly constructed facilities, but instead has a cost-share program for irrigation districts to develop and improve principal water supply works with technical assistance provided as needed. The Water Commission approved a 40% cost share for the principal water supply works for the Elk/Charbon and Nesson Valley Irrigation Districts, however, due to other difficulties these projects have not been developed.

Irrigation is developed in two basic ways in North Dakota as well as in the other western states. It can be done by the individual producer who has suitable soil and a water supply on the farm. A water permit is first obtained from the Office of the State Engineer which authorizes the appropriation of water. The producer can then install the infrastructure to capture and apply the water to the land. The majority of the approximately 270,000 acres irrigated in the state were developed in this manner. Much of the acreage is supplied by ground water.

The second way is through an irrigation district where a central supply works is constructed to deliver water from one of the state's major rivers to land involving more than five owners. Such was the intent of the Garrison Diversion Project, which included 250,000 acres in the initial phase. The Bureau of Reclamation was in-charge of constructing and financing the water supply works that would deliver water to the various irrigation districts. The project has been realigned and down-sized to include only a few thousand acres of irrigation. Through the realignment process the Bureau of Reclamation is no longer involved in the construction of facilities to furnish water for irrigation. Therefore, consideration should be given to alternatives by which North Dakota can foster the development of irrigation. Economically, the revenue from an irrigated acre is approximately 3 times that of a non-irrigated acre.

The Turtle Lake Irrigation District (TLID) consists of approximately 14,000 acres designated by the Bureau of Reclamation as being well suited for irrigation. The Dakota Water Resources Act of 2000 authorized 23,700 acres to be developed using water from the McClusky Canal. Since the Bureau of Reclamation could no longer build new irrigation water supply works, the responsibility of moving ahead on the project fell on the TLID Board of Directors. The District was not willing to assume the responsibilities of canvassing all of the land owners, hiring the engineers to design the water supply works, and arrange the financing. These are big responsibilities that the Board did not want to take on because they did not have experience for addressing the engineering and financing aspects of the project. However, the Garrison Diversion Conservancy District (GDCCD) had the capability to develop the project and became involved. Thus, the reason for House Bill 1318.

It appears that one of the issues that makes an irrigation district board of directors reluctant to take on the development of a proposed project is the amount of money involved and the complexity related to modern day irrigation development.