

**TRI-BASIN NATURAL RESOURCES DISTRICT
MASTER PLAN**

Approved by Tri-Basin NRD
Board of Directors
Revised 1/10/2012

FOREWORD

Section 2-3276 Reissue Revised Statutes of Nebraska, 1943 state: "By August 1, 1979 each Natural Resources District shall prepare and adopt a master plan to include but not be limited to a statement of goals and objectives for each of the purposes stated in Section 2-3229. The Master Plan shall be reviewed and updated as often as deemed necessary by the district, but in no event less than once each ten years. A copy of the Master Plan as adopted and all revisions and updates hereto shall be filed with the Natural Resources Commission." This is the updated master plan for Tri-Basin Natural Resources District.

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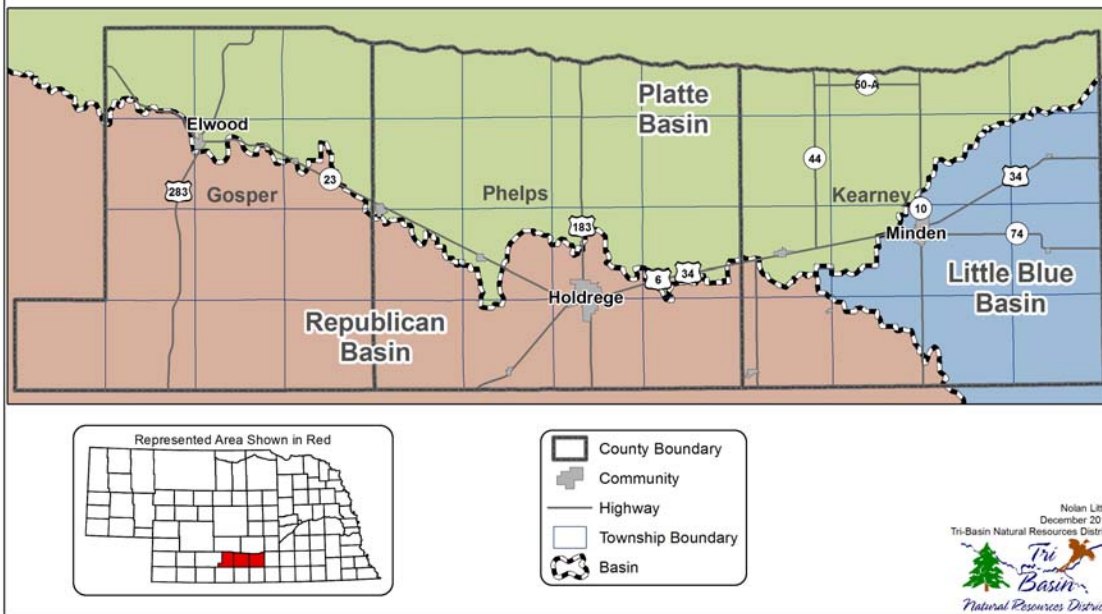
INTRODUCTION

Natural Resources Districts (NRD's) were established in Nebraska to develop and implement programs for the management of natural resources. State law delegates the following areas of responsibility for NRDs: (1) erosion prevention and control, (2) prevention of damages from flood water and sediment, (3) flood prevention and control, (4) soil conservation, (5) water supply for any beneficial uses, (6) development, management, utilization and conservation of groundwater and surface water, (7) pollution control, (8) solid waste disposal and sanitary drainage, (9) drainage improvement and channel rectification, (10) development and management of fish and wildlife habitat, (11) development and management of recreational and park facilities, and (12) forestry and range management.

These 12 areas of responsibility overlap, so they have been combined in the following manner for this plan (numbers in parentheses refer to the numbering of the various responsibilities listed above):

- Erosion prevention and control (1) and soil conservation (4).
- Prevention of damages from flood water and sediment (2) and flood prevention and control (3).
- Water supply for any beneficial uses (5) and development, management, utilization and conservation of groundwater and surface water (6).
- Pollution control (7) and solid waste disposal and sanitary drainage (8).
- Drainage improvement and channel rectification (9).
- Development and management of fish and wildlife habitat (10) and development and management of recreational and park facilities (11).
- Forestry and range management (12).

Tri-Basin Natural Resources District Political and Hydrologic Boundaries



Tri-Basin Natural Resources District location map

CHAPTER I - GENERAL

A. Authority and Organization

LB 1357, passed by the Nebraska Legislature in 1969, created the authority for natural resources districts. Section 2-3201, Revised Statutes of Nebraska, 1943, states:

“The legislature hereby recognizes and declares that it is essential to the health and welfare of the people of the State of Nebraska to conserve, protect, develop and manage the natural resources of this state. The legislature further recognizes the significant achievements that have been made in the conservation, protection, development and management of our natural resources and declares that the most efficient and economical method of accelerating these achievements is by creating natural resources districts encompassing all of the area of the state, as provided by this act.”

Tri-Basin Natural Resources District commenced operation on July 1, 1972, serving Gosper, Phelps and Kearney counties. Tri-Basin NRD succeeded, and assumed the assets and responsibilities of the Soil and Water Conservation Districts that had existed in those counties.

Tri-Basin Natural Resources District is governed by an elected Board of Directors. There are thirteen members on the board, two of whom are elected from each of six subdistricts, with one member elected at-large.

Current Board Members are:

David Nickel, Chairman	Kearney	6
David Olsen, Vice-Chairman	Minden	At-large
Bradley Lundeen, Secretary	Wilcox	5
Todd Garrelts, Treasurer	Holdrege	4
Brian Bergstrom	Axtell	3
Ed Harris	Loomis	2
Dick Helms	Arapahoe	1

Phyllis Johnson	Bertrand	1
Joe Larson	Loomis	2
David Nelson	Upland	5
David Raffety	Kearney	6
Larry Reynolds	Lexington	1
Ray Winz	Holdrege	3

A permanent staff (listed below) implements the District's various programs and projects. Additional staff are hired on a seasonal basis, as needed.

Charles Brooks	Land Resources Coordinator/Phelps County Weed Control Superintendent
Tammy Fahrenbruch	Office Manager
Lori Hagan	Field Office Secretary (Elwood)
Richard Holloway	Assistant Manager
Carie Lynch	Administrative Secretary
Ruth Nielsen	Field Office Secretary (Minden)
Tamara Reese	Field Office Secretary (Holdrege)
Nicole Salisbury	Information and Education Coordinator
Esther Smith	Office Clerk/Receptionist
Destinee Steinke	Office Clerk
John Thorburn	General Manager

B. Inventory of Resources

Tri-Basin Natural Resources District encompasses Kearney, Phelps and Gosper Counties in South Central Nebraska (See Figure 1). The district's area is 1520 square miles. Population of the district is 17,721, according to the 2010 census. Nearly half of the people live in Holdrege and Minden, the remainder live in either rural areas or in towns with populations of 700 or less.

Topography varies from the hill and canyon country of southern Gosper and Phelps counties to the level valley of the Platte River to gently rolling plains found throughout the three county area. Soils for the most part are deep and fertile. The Holdrege Soils series predominates, although there are extensive sandhills along the

south side of the Platte Valley in Phelps and Kearney counties. Soils in the Platte Valley vary greatly in texture and depth, but they are generally very productive.

Much of the district's crop land is well suited to irrigation. There are over 3800 irrigation wells in the district, supplying water for 578,524 NRD-certified irrigated acres. The Central Nebraska Public Power and Irrigation District (CNPPID) also supplies diverted Platte River water to nearly 107,000 acres of crop land in the Platte basin.

Groundwater supplies vary greatly in the district. Generally, those areas of the NRD within or adjacent to the Central Nebraska Public Power and Irrigation District service area have experienced steady rises in groundwater levels since CNPPID began operation. Other areas of the NRD, especially the extreme south-west and southeast corners have experienced intermittent declines in groundwater levels.

Groundwater quality is a more immediate concern than groundwater quantity. Nitrate levels rose steadily throughout the 1980's and 1990's, but they stabilized during the 2000s.

CHAPTER II -- VISION, MISSION, GOALS AND OBJECTIVES

The vision (overall goal) for Tri-Basin NRD is to "*work cooperatively with district residents to promote good stewardship of land and water resources.*"

Tri-Basin NRD's mission is to "*manage, conserve and protect the District's land and water resources.*" This mission will be accomplished by protecting the quality and quantity of surface water and groundwater, reducing soil erosion and flooding, promoting agricultural best management practices, forestry and wildlife habitat preservation. These tasks can only be accomplished by working cooperatively with local residents and agencies of local, state and federal government.

Tri-Basin Natural Resources District will strive to fulfill its vision and mission over the duration of this plan. The district has developed a series of goals and objectives associated with the various purposes of the NRD as measures of progress made toward achieving the vision and accomplishing the mission of the NRD.

The 12 purposes of natural resources districts have been combined as noted in the introduction. They are as follows:

- A. Soil Conservation and Erosion Control
- B. Flood Prevention and Control
- C. Surface and Groundwater Supply and Management
- D. Pollution Control and Waste Disposal
- E. Drainage Improvement and Channel Rectification
- F. Recreation, Fish and Wildlife Management
- G. Forestry and Range Management

A. SOIL CONSERVATION AND EROSION CONTROL

GOAL: Every acre of land within the NRD will be managed to reduce soil erosion losses to rates that are less than soil loss tolerances defined by the Natural Resources Conservation Service (NRCS).

OBJECTIVES:

1. Tri-Basin NRD will continue to support NRCS and its mission of natural resources conservation. Tri-Basin NRD will employ secretaries to NRCS offices in the district to assist them in their duties. The NRD will also assist NRCS by providing technicians and seasonal help as needed, to the extent allowed by time and budget constraints.
2. The NRD will support conservation education programs of the Nebraska Association of Resources Districts. This will include sponsoring land judging and range judging contests and promoting and implementing other NARD programs.
3. The NRD will also sponsor its own educational programs in area schools to promote conservation of soil and water.
4. The NRD will enforce the rules and regulations of the Nebraska Soil Erosion and Sediment Control Act.
5. The NRD will administer the Nebraska Buffer Strip Act, the Nebraska Soil and Water Conservation Act and other programs that the district board of directors deem useful to accelerate implementation of soil conservation.
6. The district will assist local, state and federal agencies in promoting and implementing conservation buffer strips, terraces, no-till farming and other soil conservation practices.

B. FLOOD PREVENTION AND CONTROL

GOAL: To develop flood damage prevention programs to protect the resources of the Tri-Basin area.

OBJECTIVES:

1. Tri-Basin NRD will assist local governmental subdivisions in the district in flood prevention planning and flood control projects.
2. The NRD will not support development of housing or commercial developments within the flood plain of the Platte River or any stream within the district, except to the extent that such development conforms to county zoning rules.

C. SURFACE AND GROUNDWATER SUPPLY AND MANAGEMENT

GOAL: All water resources, whether their origin be groundwater or surface water, will be put to beneficial uses, managed efficiently and utilized to preserve their quality and quantity.

OBJECTIVES:

1. Tri-Basin NRD, in cooperation with Central Nebraska Public Power and Irrigation District, will continue its present groundwater table observation program to track groundwater availability.
2. The NRD will cooperate with all political subdivisions, state and federal agencies on water resources research.
3. The NRD will continue to administer cost-share programs that will encourage landowners to de-commission old wells and improve the efficiency of their irrigation systems.
4. The NRD will administer its groundwater management plan, joint integrated water management plans and groundwater management rules and regulations in a fair and equitable manner in order to conserve groundwater supplies, protect streamflows and preserve groundwater quality within the district.
5. The NRD will encourage conservation of groundwater and surface water by cooperating with UNL Cooperative Extension, NDNR, NRCS and CNPPID in educational programs, demonstrations, and technical assistance to irrigators.

D. POLLUTION CONTROL AND WASTE DISPOSAL

GOAL: To prevent pollution and promote lawful and safe disposal of waste in order to protect natural resources within the Tri-Basin NRD area.

OBJECTIVES:

1. Tri-Basin NRD will administer its Groundwater Management Area program as required by state statutes.
2. The NRD will administer the Nebraska Chemigation Act rules and regulations.
3. Solid waste disposal and sanitary sewage facilities for urban areas will remain a primary responsibility of cities and villages. Any future NRD involvement in this area will be at the request of the cities, villages or counties unless mandated by state law.
4. The NRD will cooperate with counties to assist them in roadside erosion control programs. This assistance will include use of the district's grass seeding equipment.
5. The NRD will promote proper disposal of all waste materials and take measures to prevent and prohibit illegal dumping on public property.
6. The NRD will assist local political sub-divisions in implementing wellhead protection areas to protect the quality of municipal water supplies.

E. DRAINAGE IMPROVEMENT AND CHANNEL RECTIFICATION

GOAL: To develop drainage systems that reduce damage from storm water and groundwater seepage.

OBJECTIVES:

1. Tri-Basin NRD will encourage individual landowners to maintain natural drainage on their property to prevent flooding of adjacent property.
2. The NRD will cooperate with groups of landowners interested in cooperatively addressing drainage problems. The District will form Improvement Project Areas to solve large drainage and channel rectification problems if interested landowners are willing to pay a share of development and maintenance costs.
3. Tri-Basin NRD will work closely with county boards and road superintendents to improve drainage along county and township roads.

F. RECREATION, FISH AND WILDLIFE MANAGEMENT

GOAL: To preserve, protect and enhance wildlife habitat and provide residents of Tri-Basin NRD with fishing, hunting and recreation opportunities by cooperating with landowners and local, state and federal agencies.

OBJECTIVES:

1. The NRD will cooperate with communities in the district to develop parks and recreational facilities that benefit the general public and which are consistent with good land and water management.
2. The NRD will cooperate with local, state and federal agencies and non-governmental organizations to promote and implement programs and projects that create, enhance and protect wildlife habitat on private land.

G. FORESTRY AND RANGE MANAGEMENT

GOAL: To improve the quality of all woodland and rangeland in the Tri-Basin area to increase their productivity for livestock and wildlife.

OBJECTIVES:

1. Tri-Basin NRD will continue its tree planting program, establishing windbreaks, shelterbelts, living snow fences, wildlife habitat and commercial tree plantings.
2. The NRD will cooperate with local political sub-divisions and civic groups to promote tree planting by providing free trees to schools, Arbor Day programs and parents of each baby born in the NRD service area.
3. The NRD will encourage proper management of rangeland within the NRD to maintain or improve its current productivity.
4. The NRD will provide grass drills to district residents to upgrade range productivity, enhance or create wildlife habitat and plant buffer strips.
5. The NRD will discourage the conversion of highly erodible rangeland for row crop production.

CHAPTER III - SUMMARY

AREAS OF PRIMARY CONCERN (PRIORITIES)

The goals and objectives of Tri-Basin Natural Resources District as stated in Chapter II are all obtainable in the ten-year time period of this plan. However, due to factors such as budget limitations, manpower availability, local concerns and public interest, not all of them can be accomplished at once. For this reason, the NRD directors establish primary areas of concern or priorities. This is an ongoing process, as concerns change and some problems become more acute than others.

The current primary area of concern for Tri-Basin Natural Resources District is surface and groundwater supply and management, with an emphasis on preserving water quality and reducing depletions to baseflows of streams (integrated water resources management). The District-wide Groundwater Management Area requires considerable manpower and financial resources.

Another primary concern is administration of the Nebraska Chemigation Act. Although it is listed as an objective under the Pollution Control and Waste Disposal goal, it is also a major emphasis in water quality management.

Other priorities are soil conservation and erosion control and drainage improvement and channel rectification. Conversion of highly erodible pasture land into cropland is an increasing concern in this district. Drainage improvement and channel rectification has been up-graded from a low to medium priority as much staff time has been spent developing and maintaining six Improvement Project Areas designed to alleviate drainage problems. A channel rehabilitation project conducted in cooperation with the Central Nebraska Public Power and Irrigation District and US Fish and Wildlife Service requires both staff time and funds for maintenance.

Next in importance are recreation, fish and wildlife management, forestry and range management, and pollution control and waste disposal. Tri-Basin NRD cooperates with the Rainwater Basin Joint Venture to create, enhance and protect wetlands for waterfowl and shorebirds. Tree planting and forestry have always been emphasized in this district. The NRD also works closely with Pheasants Forever on

upland habitat for game birds through their Corners for Wildlife program. These programs are important to the Natural Resources District and require a great deal of staff time during certain times of the year.

Pollution control and waste disposal, excluding chemigation which has been explained previously, and flood prevention and control receive a lower priority at the present time.

It is interesting to note that, in the original Master Plan written in 1978, water quality was not even mentioned. Integrated water management wasn't considered worthy of mention in the 1999 plan revision. These aspects of groundwater and surface water management are now major activities and high priorities for the district. Also, drainage improvement was a low priority goal. These changes in emphasis point out the need for a planning process that is flexible and adaptable to the changing needs of the district.

OTHER PLANS OF THE DISTRICT

This Master Plan is not a complete picture of the Tri-Basin Natural Resources District. It is a part - the first step - of the complete planning process. Enabling legislation for this Master Plan included other planning requirements. The Nebraska Unicameral has required Natural Resources Districts to initiate additional, more narrowly focused, planning efforts since the Master Plan was first required in 1978. The Groundwater Management Plan was completed in January 1986 and approved by the Department of Water Resources. It has been revised and updated several times since then. The Soil Erosion and Sediment Control Act was passed by the 1986 Legislature and LB474. Rules and Regulations governing this program on the district level were approved by the Natural Resources Commission and went into effect July 1, 1987. Most recently, the district worked with the NE Department of Natural Resources to develop a joint integrated water resources management plan (IMP) for the Platte Basin. This plan was agreed upon in 2009. A joint IMP for the Republican Basin portion of the district is now in its final stages of development.

The Groundwater Management Plan and IMP have been very helpful in shaping future water management programs. The NRD's Groundwater Management Rules and Regulations are administered based on guidelines set up in those plans.

Individual project plans are another important part of the complete planning process of the NRD. These plans are necessary to carry out specific projects approved by the district Board of Directors. They must be coordinated with other local agencies and with appropriate state agencies if state regulations or funds are involved.

APPENDIX

GROUNDWATER MANAGEMENT RULES AND REGULATIONS