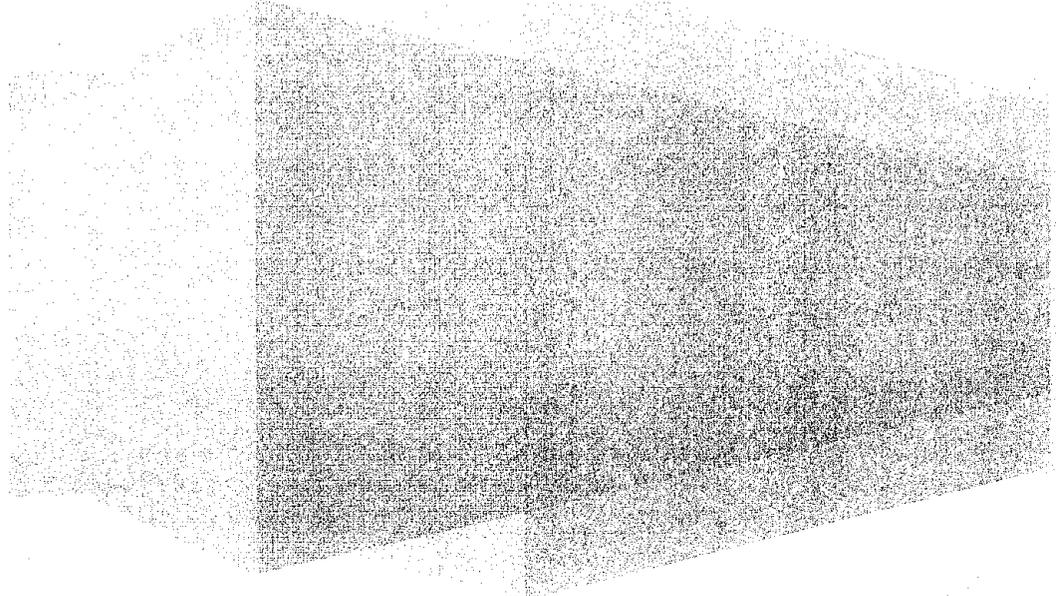


**Middle Republican Natural Resources District**

# **Master Plan**



**2012**

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DEPARTMENT OF  
NATURAL RESOURCES

**Master Plan Distribution – June 2012**

<b><u>NAME</u></b>	<b><u>NUMBER</u></b>
MRNRD Directors	11
Natural Resources Conservation Service Field Offices	5
Natural Resources Conservation Service State Office	1
County Cooperative Extension Offices	5
Nebraska Association of Resources Districts	1
Department of Natural Resources	1
Nebraska Game & Parks Commission	1
Nebraska Policy Research Office	1
MRNRD Permanent File	1
MRNRD Office	<u>5</u>
<b>TOTAL</b>	<b>32</b>

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## Statement of Adoption

This Master Plan was adopted by the Board of Directors of the Middle Republican Natural Resources District at their regular meeting on June 12, 2012 at Curtis, Nebraska.

*Buck Haag*

*Stacie Owens*

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Buck Haag, Chair

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Stacie Owens, Secretary

## MISSION STATEMENT

To conduct management programs for land and water resources that are in the best interest of all people, especially citizens of the Middle Republican Natural Resources District.

## INTRODUCTION

### **2-3201 Natural resources, declaration of intent.**

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. The Legislature further declares that the functions performed by soil and water conservation districts, watershed conservancy districts, watershed districts, advisory watershed improvement boards, and watershed planning boards shall be consolidated and made functions of natural resources districts. The governing boards of such districts and boards shall complete, before July 1, 1972, the necessary transfers and other arrangements so that such boards may on that date begin the operation of natural resources districts. The Legislature further declares that other special-purpose districts, including rural water districts, drainage districts, reclamation districts, and irrigation districts, are hereby encouraged to cooperate with and, if appropriate, to merge with natural resources districts.

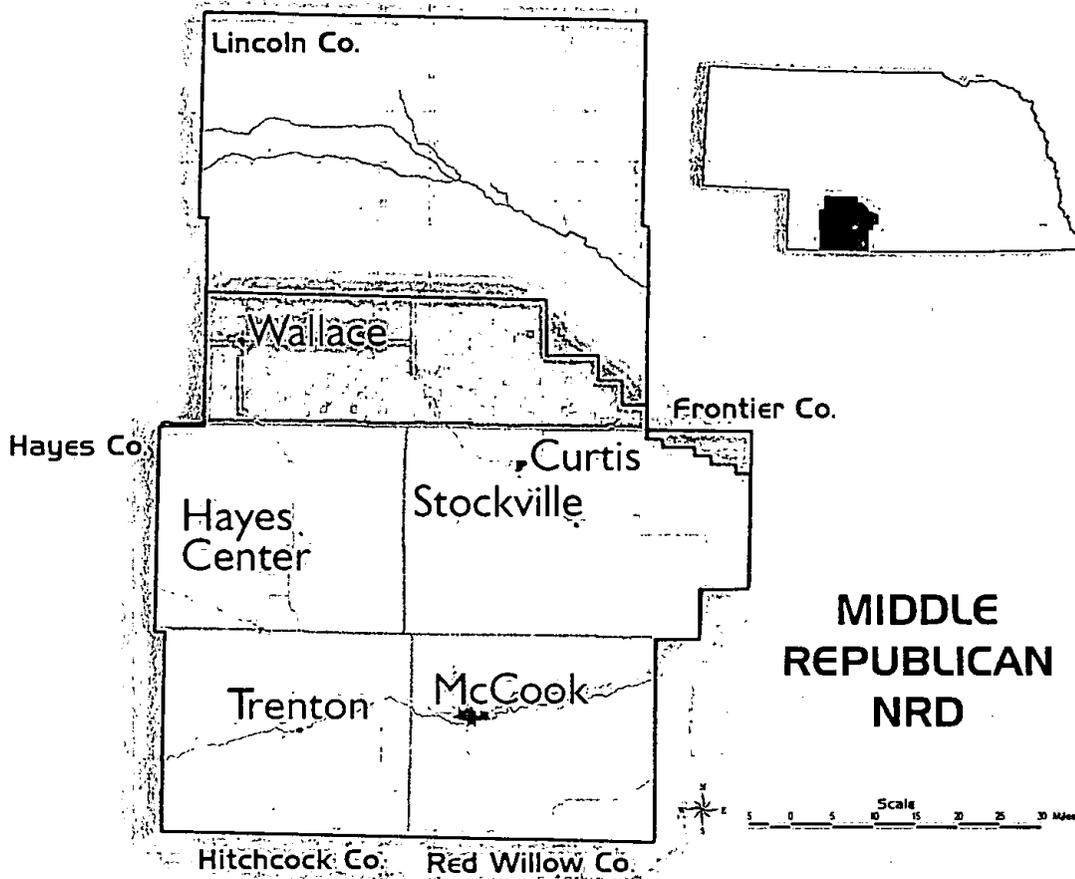
### **2-3229 Districts; purposes.**

The purposes of natural resources districts shall be to develop and execute, through the exercise of powers and authorities granted by law, plans, facilities, works, and programs relating to (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 ground water 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. As to development and management of fish and wildlife habitat and development and management of recreational and park facilities, such plans, facilities, works, and programs shall be in conformance with any outdoor recreation plan for Nebraska and any fish and wildlife plan for Nebraska as developed by the Game and Parks Commission.

### **2-3276 Districts; master plan; prepare and adopt; contents; review; filed.**

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 often than once each ten years. A copy of the master plan as adopted and all revisions and updates thereto shall be filed with the department.

The Master Plan is the document that expresses the vision of the future and shapes the direction and activities of the Middle Republican Natural Resources District. This plan was developed by the staff and board of directors. This plan along with the others plans of the district provide the template for the future with the recognition that goals and objectives may change. The Long Range Implementation Plan, the Annual Budget, and the Integrated Management Plan are the primary tools for implementing the Master Plan.



## DIRECTORS

The MRNRD is governed by a locally elected board of directors. These 11 directors are all nominated and elected at large, with five or six board members elected every four years. The regular board meeting of the district is held on the second Tuesday of each month. Most meetings are scheduled in the headquarters community of Curtis.

## STAFF

In 2012 the NRD had a full time staff of 13 employees. Nine of these employees were located out of the headquarters office in Curtis. An additional four employees were located at the Natural Resources Conservation Service field offices in Curtis, Hayes Center, Trenton and McCook. Operating under cooperative agreements with NRCS, two more employees are provided at the McCook field office. These employees have specific duties relate to integrated management of ground water. Approximately six more staff are employed on a part time basis to provide technical support to the NRCS.

## TAXING AUTHORITY

The districts taxing authority includes (a) a base authority of four and one half cents on each 100 dollars of taxable valuation annually on all of the taxable property with the district, (b) an additional one cent is allowed to administer and implement ground water management activities and (c) another three cents may be levied to administer and implement integrated management activities. In addition to the property tax and occupation tax of up to \$10.00 per irrigated acre is available to the district to be used for River-flow enhancement projects related to the Integrated Management Plan of the district.

## SETTING

Located in southwest Nebraska the Middle Republican NRD covers 3,805 square miles or approximately 2,449,380 acres and stretches from the Kansas border northward to 15 miles into Lincoln County, a distance of 63 miles at the widest point. The greatest east-west distance is 72 miles. The above sea-level elevation ranges from 2500 to 3100 feet. The district borders on five other NRD's; the Upper Republican NRD to the west; the Twin Platte NRD to the north and the Central Platte, Tri-Basin and the Lower Republican NRD's to the east.

The district includes all of Hayes, Hitchcock and Red Willow Counties along with most of Frontier and about the southern third of Lincoln County and encompasses the central area of the Republican River Basin. The district has a total population of approximately 19,700 people, with 11,000 people in Red Willow County and 7700 of those people in the city of McCook.

Communities include McCook, Indianola, Bartley, Lebanon, Danbury, Culbertson, Trenton, Stratton, Palisade, Hamlet, Hayes Center, Wallace, Wellfleet, Maywood, Curtis, Moorefield and Stockville. The district headquarters is centrally located in Curtis.

Agriculture is the primary enterprise in the district. Many who are not farm operators work in a related agricultural business as well. Wheat, corn soybeans and grain sorghum are the major crops with several other crops also being produced. Crops are grown under irrigated or dryland conditions, with corn being the primary irrigated crop. The raising and feeding of cattle is the major livestock enterprise. To support this, much of the grain and forage crop produced is fed to livestock. The district has several feedlots with as many as 200,000 cattle on feed. With four ethanol plants in or near the district, much of the corn production has gone into the manufacture of ethanol in recent years. The distillers grain byproduct is utilized by these feedlots.

The main waterways flowing through the NRD are the Republican and Frenchman Rivers. Other important tributary streams are the Medicine, Blackwood, Red Willow, Stinking Water, Muddy, Driftwood and Beaver Creeks.

The Republican and Frenchman Rivers and the Red Willow and Medicine Creeks are the main surface water sources. Flood control and irrigation water supply dams have been built on all of these main waterways.

Since the NRD sits over the Ogallala Aquifer, underground water is very plentiful in most areas. Over 3,000 irrigation wells have been registered in the district. Even though water is plentiful in much of the district, the area south of the Republican River is short of ground water.

The climate is one of limited precipitation, low humidity, frequent wind shifts and extreme temperature changes. The annual precipitation averages approximately 20 inches, with most of it falling as rain during the growing season.

The Republican River Basin's worst flood occurred in 1935 during the same time period the worst dust storms of the 1930's were occurring. These two quirks of nature caused residents to realize that their land and water resources should be managed wisely, rather than left to chance. As a result, wide-spread land treatment, irrigation development and flood control activities began throughout the district. This legacy of soil and water conservation management has helped to create a "conservation ethic" which seems to make widespread acceptance of the Middle Republican NRD's programs easier by the public.

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The goals and objectives as related to our areas of authority are as follows on Tables 1 through 4:

# MRNRD Master Plan 2012

<b>Master Plan Objectives</b>			
AREA	GOAL		OBJECTIVES
A. EROSION PREVENTION AND CONTROL	Reduce soil erosion to acceptable limits	A. 1	Administer the Nebraska Erosion and Sediment Act
		A. 2	Approve conservation plans for private lands
		A. 3	Administer cost-share assistance programs
		A. 4	Assist with the implementation of best management practices
		A. 5	Provide educational and technical assistance
B. FLOODWATER AND SEDIMENT MANAGEMENT	Reduce flood and sediment damage	B. 1	Sponsor Dry Creek Pilot Project (PL-566)
		B. 2	Sponsor Dry Creek South Project (PL-566)
		B. 3	Sponsor Upper Medicine Creek Project (PL-566)
		B. 4	Sponsor Lower Medicine Creek Project (PL-566)
		B. 5	Sponsor Blackwood Creek Project (PL-566)
		B. 6	Sponsor McCook Flood Control Project (NRDF)
C. FLOOD PREVENTION AND CONTROL	Construct flood control structure only when feasible and cost share comparison is favorable	C. 1	Determine feasibility of flood control projects for areas where perpetual flood damage occurs
		C. 2	Assess public interest in projects
		C. 3	Make applications for federal or state flood control assistance
D. SOIL CONSERVATION	Conserve and protect soil resources	D. 1	Encourage landowners to apply best management practices
		D. 2	Review and approve local soil and water conservation plans
		D. 3	Assist landowners in the implementation of best management practices
		D. 4	Provide farmers and ranchers cost share assistance for soil conservation practices
		D. 5	Provide educational and technical assistance

Table 1

# MRNRD Master Plan | 2012

<b>Master Plan Objectives</b>			
AREA	GOAL		OBJECTIVES
E. WATER SUPPLY	Monitor, maintain and improve the quality and quantity of surface and ground water	E. 1	Promote beneficial and efficient use of all water resources
		E. 2	Monitor, inventory and evaluate the quality and quantity of surface and ground water on a continuing basis
		E. 3	Comply with state and federal permit requirements for impoundment or use
		E. 4	Assist patrons with information for proper design and construction of water development projects
F. DEVELOPMENT, MANAGEMENT, UTILIZATION AND CONSERVATION OF GROUND AND SURFACE WATER	Ground and surface water will be managed in a beneficial and efficient manner to provide for future needs	F. 1	Measure static water levels of the ground water reservoir annually
		F. 2	Take water quality samples annually
		F. 3	Cooperate with state and federal agencies in maintaining ground water quality and quantity databases
		F. 4	Implement and maintain ground water management areas as needed to address water quality and quantity concerns
		F. 5	Develop and implement an Integrated Management Plan in cooperation with Department of Natural Resources
		F. 6	Cooperate with state and federal agencies in developing conjunctive management programs

Table 2

# MRNRD Master Plan 2012

<b>Master Plan Objectives</b>			
AREA	GOAL		OBJECTIVES
G. POLLUTION CONTROL	Maintain or improve the present quality of air and water	G. 1	Carry out the permit and inspection requirements of the Nebraska Chemigation Act
		G. 2	Report point source contamination to the Nebraska Department of Environmental Control
		G. 3	Provide technical and cost share assistance for landowners to implement best management practices to reduce potential pollution
		G. 4	Promote eco-fallow and conservation tillage systems on cropland
H. DRAINAGE IMPROVEMENT AND CHANNEL RECTIFICATION	Assist with the development of drainage or channel improvement	H. 1	Complete a thorough environmental impact study when contemplating major drainage improvements or rectification work
I. DEVELOPMENT AND MANAGEMENT OF FISH AND WILDLIFE HABITAT	Preserve, develop and manage fish and wildlife habitat	I. 1	Cooperate with the Nebraska Game and Parks Commission in implementing habitat programs
		I. 2	Consider incorporating fish and wildlife habitat protection and enhancement in district projects where feasible
		I. 3	Cooperate with private groups or organizations and individuals to improve fish and wildlife habitat

Table 3

MRNRD Master Plan | 2012

Master Plan Objectives			
AREA	GOAL		OBJECTIVES
J. DEVELOPMENT AND MANAGEMENT OF RECREATIONAL AND PARK FACILITIES	Assist communities with the development of recreational and park facilities for public use	J. 1	Provide financial and advisory assistance to communities that are developing outdoor recreation facilities for the public
K. FORESTRY AND RANGE MANAGEMENT	Develop, improve and maintain rangelands and woodlands	K. 1	Provide trees and a tree planting service
		K. 2	Administer forestry cost share assistance programs
		K. 3	Promote planned grazing systems and proper range management practices for livestock grazing operations
L. SOLID WASTE DISPOSAL AND SANITARY DRAINAGE	Assist local and county governments with the administration of solid waste and sanitary drainage	L. 1	Furnish soils, water and other geologic information to counties, cities and towns upon their request
		L. 2	Comply with rules and regulations for solid waste and sanitary drainage in district operations and programs

Table 4

The following are summaries of various programs and projects the Middle Republican NRD has initiated to achieve its goals as listed on Tables 1 through 4. These summaries are examples of the MRNRD's activities and are not complete listings of programs and projects but just an overview. The district's "Long Range Implementation Plan" contains specific objectives addressed by each program or project.

## Ground Water Management

It is the policy of the Middle Republican Natural Resources District to carry out programs that encourage efficient water use as well as protect the quality of ground water. The district's "Ground Water Management Plan" was updated in 1994 to include provisions for ground water quality management in addition to ground water quantity management. Preserving an ample supply of high quality ground water to help sustain the area's economy and provide for future needs is the purpose of the current plan.

In 1992 the district established a 450 square mile Special Protection Area for ground water quality (now known as the Ground Water Quality Management Area). The purpose of this management area has been to reduce nitrate contamination in the ground water. Today this area is still in existence and is an important part of the district operations. In 1995-96, nitrate levels in the northern section of the district were tested and found to be within normal limits.

A district-wide Ground Water Quantity Management Area was established in July of 1998. Controls adopted in that management area included flow meters, well construction permits, certification of acres and in 2002 a moratorium on new well construction.

Following the settlement of the lawsuit with Kansas in 2003 and the passage of LB962 in 2004, the NRD moved into integrated management and adopted our first integrated Management Plan in 2004. It was later revised in 2007 and again in 2010

Other district ground water programs include the coordination of the chemigation program. NRDs statewide issue chemigation permits and periodically inspect all systems. A well monitoring program has been developed throughout the district. The sampling and measuring of wells by the NRD for both quality and quantity keeps the district on top of any ground water changes.

The district also administers cost share assistance programs to encourage citizens to continue the use of best management practices for water resources.

## Land Treatment

The Middle Republican NRD's approach to soil and water conservation has been to encourage landowners to conserve our natural resources and assist them in implementing the best management practices which are most compatible with their use of the land. It is the policy of the district to carry our programs necessary for the conservation and preservation of land resources. The NRD cooperates with the USDA Natural Resources Conservation Service and private land owners to promote proper land treatment on district farms and ranches. Many other agencies and groups receive similar cooperation on public and urban lands. The district's land treatment program is a joint effort where the NRD agrees to reimburse, or cost share with the landowner for a percentage of their costs of installing the conservation practices. These practices are usually voluntary and advocate best management practices that reduce soil erosion and maintain the quality of the land resources.

## Floodwater Control

The Middle Republican NRD sponsors and maintains small watershed and flood control structures in cooperation with various state and federal agencies. These projects help reduce flood damage, retain sediment and control erosion. They also increase the benefits from upstream soil and water conservation practices and extend the life of downstream reservoirs, canals and transportation facilities. In the Middle Republican NRD there are 34 flood control structures and four channel ways that provide about 50,000 acre feet of detention flood storage. Watershed structures the district currently sponsors are the Upper Medicine Creek, Lower Medicine Creek, Blackwood Creek, Dry Creek South, Dry Creek Pilot, McCook Flood Control Project and the Perry Drain Watersheds.

Currently, there are no plans to build more structures in the district. This is due to a surface water rights moratorium and compliance issues with Kansas over Republican River Basin water rights.

## Wildlife Habitat

It is the policy of the Middle Republican NRD to cooperate with the Nebraska Game and Parks Commission and private landowners to implement and carry out improvements to wildlife habitat. The Middle Republican NRD will also enter into other cooperative agreements with landowners, Pheasants Forever Chapters, Environmental Trust Programs and others to improve wildlife and fishery habitat. All agreements are subject to funds and materials being available to the district.

## Forestry

Encouraging tree planting for livestock and farmstead windbreaks, erosion control and wildlife habitat is the policy of the Middle Republican NRD. Trees for education are given to schools, clubs, communities and other civic organizations.

Plans are to distribute approximately 45,000 tree seedlings to patrons each spring. Also available is machine planting and fabric mulch to conserve moisture. Cost-share assistance from the district is available.

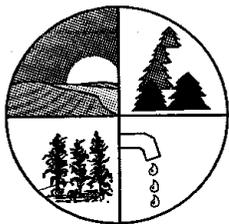
## Chemigation Program

To comply with the 1986 Nebraska Chemigation Act, the Middle Republican NRD administers an in section and permit program in cooperation with the Nebraska Department of Environmental Quality.

## Information and Education

It is the policy of the Middle Republican NRD to promote best management practices of land and water resources. A variety of awards and scholarships are presented each year, the purpose of which is to focus attention on and reward those who implement good conservation practices. Workshops and demonstration sites are sponsored to promote the latest in management and technology. Judging contests and other competitions are sponsored for high school students to learn more about and test their knowledge of natural resources. District staff members are always available for school and community presentations as well. The district sponsors the Southwest Nebraska Water Conference. For over 20 years this annual conference has brought new ideas and programs dealing with water quality and quantity before the producers of our district.

The district puts out a quarterly newsletter and press releases are distributed to district media to promote items of public interest. Media representatives are always welcome at meetings and events sponsored by the NRD.



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