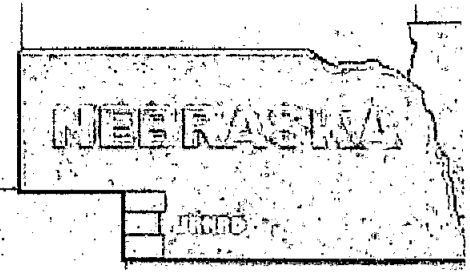


Upper Republican Natural Resources District



Significant Changes in Water Management

- * 1972 Upper Republican NRD formed
- * 1976 Ground Water (GW) Management Act Passed
- * 1977 URNRD established GW Management Area and Certified Acres
- * 1978-79 URNRD established GW metering program
- * 1996 LB-108 passed
- * 2004 LB-962 passed

Upper Republican NRD Historical Allocations

- * 1980-82 22 in/ac
- * 1983-87 20 in/ac Flood 16 in/ac Pivot
- * 1988-92 15 in/ac
- * 1993-04 14.5 in/ac
- * 2005-07 13.5 in/ac

2005 Irrigation Usage

- * 11.4 in/ac on 448,924.74 certified acres
- * Approximately 78,500 acre feet less than allocation
- * Approximately 130,500 acre feet less than 2000-2004 average use

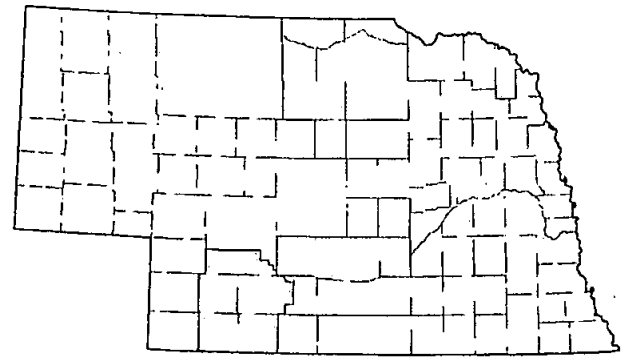
Upper Republican NRD Water Management Activities

- * 3,400 Irrigation meters read annually
- * 2,500 Chemigation inspections
- * 250-300 Water Samples collected annually
- * 13 Continuous recorder wells read
- * 400 static water level measurements taken semiannually

Upper Republican NRD Statistics

- * Total Property Valuation \$1,138,631,636
- * Size of District in Acres 1,726,080
- * Total Population 10,842
- * FY 2004 Budget \$1,469,335
- * FY 2005 Property Tax Receipts \$626,200

MIDDLE REPUBLICAN NATURAL RESOURCES DISTRICT



TOTAL LAND AREA

3,805 square miles or 2,449,380 acres

ELEVATION

2,500 to 3,100 ft. above sea level

PRECIPITATION

Average annual precipitation ranges from 19 inches in the west to 22 inches in the east. Nearly three fourths of the precipitation falls from April to September with frequent variations between seasons. Drought conditions are not uncommon. Southwest Nebraska has been in a severe drought for the past five years.

CLIMATE

The climate is one of limited precipitation, low humidity, frequent wind shifts, and frequent sharp temperature changes. The Rocky Mountains to the west have a major effect on the district's climate.

SURFACE WATER

Major rivers are the Republican and the Frenchman. Other tributaries are Medicine, Blackwood, Red Willow, Stinking Water, Muddy, Driftwood, and Beaver Creeks. Flood control and irrigation supply dams are located at Swanson Reservoir west of Trenton on the Republican River, Red Willow Lake north of McCook on the Red Willow Creek, and Harry Strunk Lake north of Cambridge on the Medicine Creek. Another dam is at Enders Lake on the Frenchman River west of the district boundary. These dams supply surface water for irrigation to 44,287 acres of crops located in the Middle Republican NRD.

GROUND WATER

Adequate supplies of ground water exist in most areas except south of the Republican River. The base of the underlying sand and gravel layers that contain the water bear-

Located in southwestern Nebraska, the Middle Republican Natural Resources District consists of all of Hayes, Hitchcock, and Red Willow Counties, most of Frontier County, and the southern one-fourth of Lincoln County. The district is bounded by the Kansas state line on the south and is 72 miles wide (from east to west) and 63 miles long (from north to south). The city of McCook is the largest municipality.

The total land area of the district is 3,805 square miles, or 2,449,380 acres. One in eight acres is irrigated. Current property tax for the district is 623.518. The levy rate is .40760. In 2005-06, more than 40% of the district's \$1,370,700 budget has been allocated to Groundwater Management.

In the past, the focus of the MRNRD has been on Water Quantity. The current focus is on Integrated Management. In most respects, Integrated Management will address Water Quantity issues. In November 2004, the Board of Directors adopted Ground Water Management Area Rules and Regulations and Integrated Management Plan, effective January 1, 2005. This process initially began in July of 1996 after the passage of LB 108, legislation that first recognized the relationship between ground water and surface water in Nebraska statutes. Action by the NRD and the Department was delayed when Kansas filed their lawsuit against Nebraska in May of 1998. With the settlement of the lawsuit in December of 2002 and the final determination made by the Department in June of 2003, the Department and the NRD began actively pursuing management concepts that would ensure compliance with the compact settlement without jeopardizing the economic viability, social and environmental health, safety, and welfare of the Republican River Basin.

These rules, which will help Nebraska maintain compliance with the Republican River Compact Settlement, limit pumping to a total of 39 inches over a three-year period beginning in 2005. They also include a moratorium on new wells and no new development of irrigated acres. Reductions resulting from active participation in incentive programs such as CREP and

2005 Groundwater Use by County*

County	Use	Water Usage	Irrigated Acres	# of Meters	Average Use
Frontier	Irrigation	536481.27	67748.8	563	7.92
Hayes	Irrigation	585623.01	67271.8	472	8.71
Hitchcock	Irrigation	296707.10	37607.8	511	7.89
Lincoln	Irrigation	710847.64	75628.7	513	9.40
Red Willow	Irrigation	508751.86	52140.6	810	9.76
Average Usage District-wide					8.78

*All data are provisional and subject to revision.

ing material rest on impervious layers of Niobrara Chalk, Pierre Shale or formations from the White River Group. As of October 2004, 3,549 irrigation wells were registered.

SOIL TYPES

Soils range from sandy in the north and west to silt in the south and east.

LAND USE

Land use ranges from ranching in the north and west to farming in the south and east. Nearly 52% of the land consists of grazed pasture and rangeland, while 46% is considered cropland. The remaining 2% are in urban areas, trees, water, roads and farmsteads. 1 acre in 8 is irrigated.

CROPS

The major crops are corn, wheat, sorghum, and soybeans, all grown under dryland and irrigated conditions. Corn is the primary crop. Grain and forage are grown as live-stock feed.

LIVESTOCK

Beef cattle are the most common livestock with some dairy cattle and hog production.

POPULATION

The 2000 census reported 19,302 people. There are no major changes anticipated in population in the near future. Population numbers have seen major declines in the district in the previous 50 years. The average age of residents exceeds the national average.

ECONOMY

Most occupations are related to or are dependant on agriculture. There is some light industrial development in and around McCook. Hitchcock and Red Willow Counties are state leaders in crude oil production. One ethanol plant is in production, with others proposed.

EQIP that will permanently or temporarily retire irrigated acres will be necessary to maintain compliance with the Republican River Compact settlement. The Department of Natural Resources and the Middle Republican NRD will work toward developing and funding water conservation incentive programs to achieve these reductions. Additional revisions, based on annual review of Compact compliance, will be considered in the future.

The Rules and Regulations for the Ground Water Management Area will continue the management actions of the NRD first started with metering of wells in 1998 and certification of access in 2003. The Integrated Management Plan was the first such plan approved in Nebraska.

As of January 1, 2005, all regulated wells (wells that pump more than 50 gallons per minute) in the District were required to be metered. There are currently 3,255 regulated wells in the district watering a total of 313,605.25 certified acres. The Average water use for irrigation district-wide was 14.85 acre inches in 2004. In 2005, producers self-regulated an additional 30%, pumping an average of 8.78 acre inches.

2005 Certified Acres

County	Total Certified Acres	Number of Wells	Quick Response Area Acres	Quick Response Area Wells	Platte Area Acres	Platte Area Wells
Frontier	74,056.30	668	24,455.20	271	864.20	4
Hayes	68,328.30	506	16,126.30	166	0	0
Hitchcock	39,037.35	553	24,213.20	397	0	0
Lincoln	76,467.80	531	7,703.00	60	2,549.50	14
Red Willow	55,720.50	997	35,897.80	672	0	0
TOTAL	313,605.25	3,255	108,395.50	1,566	3,413.70	18

2005 CREP

At the end of 2005, CREP applications submitted for the Republican Basin totaled 40,887.67 acres, nearly 75% of the acres allocated to the Basin.

2005 EQIP Contracts (approved)

NRD	# Contracts	Total Acres	Ground Water Acres	Surface Water Acres
Upper Republican NRD	6	527.90	527.90	-
Middle Republican NRD	38	2,781.12	2,524.02	257.10
Lower Republican NRD	90	5,870.54	3,297.87	2,572.67
Tri-Basin NRD	2	109.72	109.72	-
TOTAL	136	9,289.28	6,459.51	2,829.77

Board of Directors: Joseph Anderjaska, *Hayes Center*; Duane Dodson, *Maywood*; Kevin Fornoff, *Hayes Center*; Gayle Haag, *Bartley*; Dennis Hoyt, *Culbertson*; Stanley Moore, *Bartley*; Jerry Mustion, *Culbertson*; Michael Peters, *McCook*; and Donald Roberts, *McCook*

MRNRD Office: General Manager, *Daniel Smith*; Assistant Manager, *Robert Merrigan*; Office Supervisor, *Christy Peterson*; Secretary / Receptionist, *Mary Tidyman*; Information & Education Coordinator, *Kara Gall*; Technical Supervisor, *Rich Karre*; Technicians, *Tom Hansen and Dennis Peterson*

NRCS Field Office Clerks: Frontier County, *Kim Smith*; Hayes County, *Kathy Barger*; Hitchcock County, *Carol Lashley*; Lincoln County, *Kathy Clark*; Red Willow County, *Betty Fritsch*

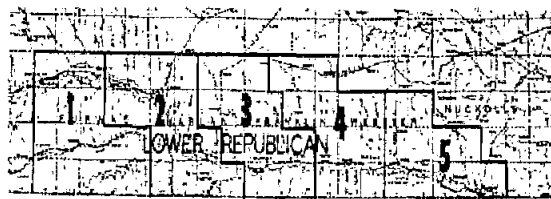
CONTACT INFORMATION

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office@mrnr.org
<http://www.mrnr.org>

Lower Republican

Natural Resources District

A Commitment to Preserving Groundwater



CONTACT INFORMATION

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 Alma, NE 68920-0618
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 Toll Free: (800) 353-1297
 Fax: (308) 928-2317
 Email: lrnrd@lrnrd.org
 Website: www.lrnrd.org

Main Office

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 Asst. Manager-Bryan Lubeck
 Adm Asst.-Shirlee Poyser
 Water Resource Sec.-Kristi Coe
 I/E Coord-Trisha Scott
 Office Asst-Jo Siel
 Water Tech-Gale Dorn
 Water Tech-John Bush
 Rural Water Super-Garold Ohmstede

Field Office Staff-NRCS

Franklin Co.-Ruth Nielsen
 Furnas Co.-Joan Perkins
 Harlan Co.-Melissa Schluntz
 Nuckolls Co.-Marian Reece
 Webster Co.-Lynetta Snelling

Board of Directors

Sub-district 1-Grace Faw
 Sub-district 1-Brian Holtze
 Sub-district 2-Jack Frear
 Sub-district 2-Toby tenBensel
 Sub-district 3-James Moore
 Sub-district 3-David Walton
 Sub-district 4-Nelson Trambly-Chair
 Sub-district 4-Jay Ziegler-Treasurer
 Sub-district 5-Terry Hoyt
 Sub-district 5-Roger Nelson-Secretary
 At-Large-Brad Wulf-Vice Chair

LRNRD FACTS

FY2006 Budget - \$2,235,728

Valuations - \$1,370,339,387

Property Tax Needed - \$690,100

Levy - 0.050360 per \$100

The Lower Republican Natural Resources District is committed to the preservation of our most precious natural resource, groundwater. We are proud of the strides we have made and commend our patrons for the bold sacrifices they have undertaken.

The Lower Republican put a moratorium on new well drilling on December 9th, 2002. We implemented a stay on the development of new irrigated acres effective December 31st, 2004. In cooperation with the Department of Natural Resources we approved an Integrated Management Plan with an effective date of June 24th, 2005. The strict rules and regulations that apply to the plan limit groundwater allocations east of Highway 183 to 33 inches for three years and west of Highway 183 to 36 inches for three years. Our allocations are the lowest in the state.

To further conserve, we do not allow water to be transferred. In addition we have provisions that limit the amount of carry over or banked water into a new allocation period. Over \$680,000 in our 2006 budget will go towards groundwater management related activities.

The average water use District-wide for 2003 was 13.03 inches, 11.24 inches in 2004 and 7.74 inches in 2005. In 2005 producers pumped 33% below allocation.

In addition to groundwater quantity the District is actively involved in a number of groundwater quality issues. We established the Superior Hardy Special Protection Area; which was the first of its kind in the state. In October of 2005 we began delivering water on our new Rural Water Project. The project provides safe potable water for domestic and livestock use to 137 users and the Village of Guide Rock.

2005 GROUNDWATER USE BY COUNTY (Excludes Co-mingled Acres)

COUNTY West to East	VOLUME (Acre-feet)	ACRES	AVERAGE (Acre-Inch)	PIVOT	GATED PIPE
FURNAS	31,552	44,352	8.85	8.90	8.92
HARLAN	41,793	64,137	8.00	8.01	8.04
FRANKLIN	39,172	64,953	7.54	7.59	7.42
WEBSTER	22,022	39,573	7.33	7.09	8.42
NUCKOLLS	4,422	8,214	6.99	6.36	8.39

TOTAL LAND AREA: 2,484 sq. miles or 1,589,760 acres

ELEVATION: 1,574 to 2,060 feet above sea level

PRECIPITATION: Average annual precipitation ranges from about 22 inches in the west to 26 inches in the east. Approximately 75% of the precipitation is received from April to September. Drought conditions are not uncommon.

CLIMATE: The climate is one of limited precipitation, fluctuating precipitation and

humidity, frequent wind shifts and frequent sharp changes in temperatures.

SOIL TYPES: The soils of the LRNRD vary from sand to silt to clay

LAND USE: Land use ranges from ranching to farming and are very nearly equally divided in the number of acres used for each. Less than 2% of the District is in urban areas, trees, water, roads, and farmsteads. Just over 20% of the District is irrigated.

CROPS: Corn, wheat, soybeans, alfalfa, and sorghum are the major crops grown under dry land and irrigated conditions. Corn is the primary crop.

LIVESTOCK: Beef cattle are the most common livestock with commercial hog production next.

POPULATION: The 2000 census reported 17,639 people. Population figures have seen major declines in the past 50 years. The average age of residents exceeds the national average. Population distribution is 36% in the rural area and 64% in urban communities.

2005 TOTAL CERTIFIED ACRES

COUNTY (W to E)	CERTIFIED ACRES	NUMBER OF WELLS
FURNAS	61,898.90	872
HARLAN	100,441.34	1091
FRANKLIN	107,792.17	1077
WEBSTER	45,440.00	495
NUCKOLLS	10,305.40	173

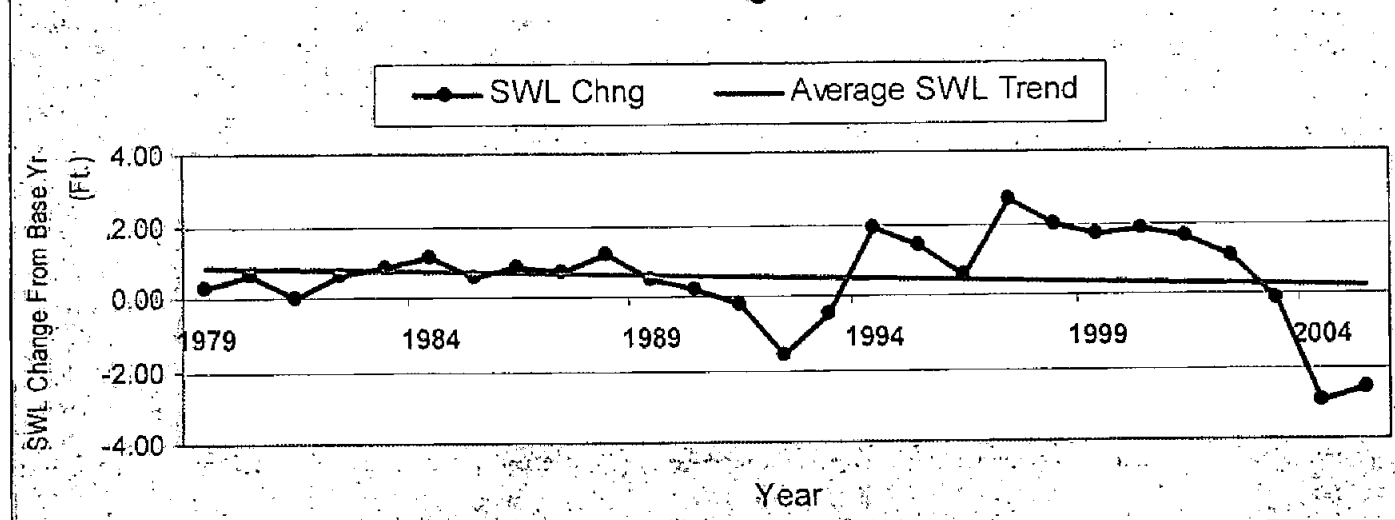
2005 CREP CONTRACTS (APPROVED)

NRD	# CONTRACTS	TOTAL ACRES	GROUNDWATER ACRES	SURFACE WATER ACRES
UPPER REPUBLICAN	71	10,939.3	10,939.3	
MIDDLE REPUBLICAN	140	15,435.3	12,748.6	2,686.7
LOWER REPUBLICAN	89	7,171.3	6,137.6	1,033.7
TRI-BASIN	11	1,395.2	1,395.2	
TOTAL	311	34,941.1	31,220.7	3,720.4

2005 EQIP CONTRACTS (APPROVED)

NRD	# CONTRACTS	TOTAL ACRES	GROUNDWATER ACRES	SURFACE WATER ACRES
UPPER REPUBLICAN	6	527.90	527.90	
MIDDLE REPUBLICAN	38	2,781.12	2,524.02	257.10
LOWER REPUBLICAN	90	5,870.54	3,297.87	2,572.67
TRI-BASIN	2	109.72	109.72	
TOTAL	136	9,289.28	6,459.51	2,829.77

LRNRD Average SWL



ECONOMY: Agriculture is the main occupation found in the District. The valuation of agricultural lands makes up almost 90% of the valuation total.

SURFACE WATER: The main stream flowing through the District is the Republican River. Other important tributaries include the Sappa, Beaver, Prairie Dog, Crooked, Center, Willow, Lost, Turkey, Thompson, Muddy, and Elm creeks. Harlan County Reservoir was completed in 1952 as a flood

control and irrigation water supply project. It is located in the southeast portion of Harlan County. The project supplies water to Bostwick Irrigation District, which it delivers to 22,935 acres in the Lower Republican NRD. The Frenchman-Cambridge Irrigation District supplies surface water to approximately 22,085 acres in Furnas and Harlan Counties from releases of flood control and irrigation supply dams upstream of the Furnas/Red Willow County line.

GROUNDWATER: Generally groundwater exists in most areas of the District except south of the Republican River. The base of the underlying sand and gravel layers which contain water bearing material rest on impervious layers of Pierre Shale, the Niobrara and Wellington Formations, and the Chase Group. As of January 2006, 3714 wells have been registered.

CONTACT INFORMATION

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Asst. Manager-Bryan Luback
Adm Asst.-Shirlee Poyser
Water Resource Sec.-Kristi Coe
I/E Coord-Trisha Scott
Office Asst-Jo Siel
Water Tech-Gale Dorn
Water Tech-John Bush
Rural Water Super.-Garold Ohmstede

Field Office Staff-NRCS

Franklin Co.-Ruth Nielsen
Furnas Co.-Joan Perkins
Harlan Co.-Melissa Schlutz
Nuckolls Co.-Marian Reece
Webster Co.-Lynetta Snelling

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At-Large-Brad Wulf-Vice Chair

LRNRD FACTS

FY2006 Budget - \$2,235,728

Valuations - \$1,370,339,387

Property Tax Needed - \$690,100

Levy - 0.050360 per \$100

TRI-B

TR - 189,677 ± 190,000

URNRD 448,000

MNRD 317,000

LRNRD 326,000

1,276,000 ± 0%

**Tri-Basin NRD
Republican Basin
2005 Average Water Use**
As of 11/29/05*

Irrigation System Type	Center Pivot	Gravity	Combination Pivot and Gravity
Total Pumpage (Gals.)	8,364,640,938	7,600,567,650	2,127,471,252
Total Irr. Acres	32,946	21,785	7,294
Avg. Acre-Inches	9.65	16.35	14.12

* These data represent 32.7% of all certified irrigated acres (189,678 acres) in the Republican Basin portion of Tri-Basin NRD as of 11/29/05.