

Middle Republican NRD Informational Meetings

Republican River Compact
Settlement Compliance
June 2004

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Republican River Basin Above Hardy, NE

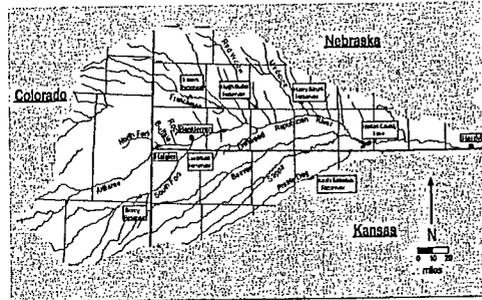
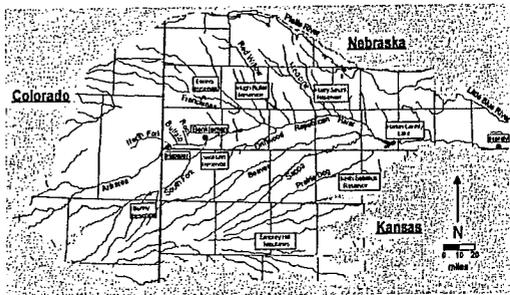


Figure 1

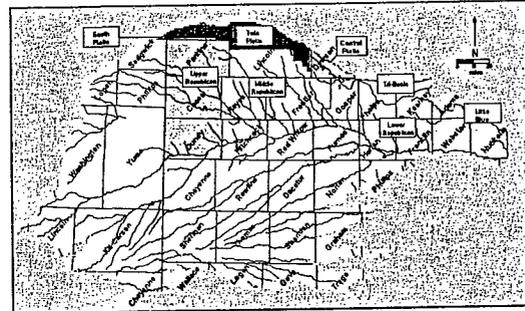
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Republican River Groundwater System



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Counties and Basin NRDs



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Well Measurements Levels Spring 2003 to Spring 2004

	District-wide
# Wells Lower	111
# Wells High	9
# Wells Unchanged	0
# Wells Unmeasured	12
Total Wells	132
Well Most Decline	-6.92
Well Most Increase	2.49
Ave Change 1 year	-0.9628
Ave Decline 1972	-0.1663

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Republican River Settlement

- Republican River Compact Signed 1943
 - Nebraska 49%
 - Kansas 40%
 - Colorado 11%
- Out-Of-Court Settlement 12/16/02
- Five-Year Running Ave., 2003-2007
- Water Short Years
 - Less Than 119,00 ac ft, K/N Bostwick

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Republican River Settlement

- Determining Compliance
 - Runoff
 - Baseflow
- Consumptive Use
- Drought Impacts

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Republican River Settlement

- Ground/Surface Water Use Conflicts (LB108)
 - Ground Water Model
- Joint Action Plan – NRDs/DNR
 - LB 962
- Rules and Regulations Established Are Unique to Individual NRDs

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GROUND WATER MANAGEMENT AREA

Effective July 1, 1998
Revised in 1999, 2000, & 2003

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Current Rules & Regulations

Regulated Well – A well that is designed and constructed to pump more than 50 gallons per minute.

Well permits – Required for all new or replacement regulated wells except;

- Test holes
- Dewatering wells used less than 90 days
- Wells 50 gpm and less

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Current Rules & Regulations

Well Spacing

- 1320 feet between regulated wells for all new wells regardless of ownership
- Replacement wells may be placed within 100 feet of the well they replace

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Current Rules & Regulations

Flow Meters – All regulated wells must be metered by December 31, 2004

- Alluvial Area – Completed by 2000
- NE ¼ by December 31, 2001
- SE ¼ by December 31, 2002
- SW ¼ by December 31, 2003
- NW ¼ by December 31, 2004

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Current Rules & Regulations

Flow meters must meet district specifications

- Cost-share assistance is available

New regulated wells are required to install meters prior to use

Waivers for unused, inactive, seldom used or wells less than 250 gpm

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Current Rules & Regulations

Reports

- All users with meters installed are required to report water use at the end of the year
- Forms provided by the district

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Temporary Suspension

- Adopted June 11, 2002
- Suspends the drilling of new wells

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2003 Revisions

Certification

- Summer of 2003 all acres irrigated by ground water were to be certified by the landowner
 - No new uses after November 2003
 - Cap on irrigated acres at 320,000
 - Currently certified 311,000
- Uses from all other regulated wells certified to the board by October 2004

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District Information

- **3,200 registered wells**
- **311,000 total irrigated acres**
63,000 alluvial acres
- **Surface water irrigated acres 44,278**
Commingled 25,000?

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DNR Data 1998-2002

- **Average water pumped 309,479 ac ft**
- **Average irrigated acres 290,191**
- **Percentage share of depletions**
 - Upper Republican NRD 40%
 - Middle Republican NRD 29%
 - Lower Republican NRD 25%
 - Tri-Basin NRD 6%

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Proposed Revisions

➤ **Joint Action Plan (LB 108)**

- Cooperative Plan with Department of Natural Resources
- NRD develops ground water plan
- DNR develops surface water plan
- Rules based in part on negotiated settlement with Kansas
- Determination and hearing by DNR June 2003

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Proposed Revisions

➤ **Integrated Management Plan (LB 962)**

- Cooperative Plan with Department of Natural Resources
- NRD develops ground water plan
- DNR develops surface water plan
- Rules based in part on negotiated settlement with Kansas
- Determination by DNR effective July 16, 2004

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Proposed Revisions

Proposed Plan A

- 10 % reduction in irrigated acres
- Allocation of 15 inches per year
- Incentive program to temporarily or permanently retire irrigated acres
- Additional reductions in "water short years"

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Proposed Revisions

Proposed Plan A Allocations

- 45 inches over a 3 year period
- Reserve limited to 6"
- No more than 3" overuse in a normal year
- No overuse in water short year
- 10% reduction in irrigated acres
- Additional 5% reduction in water short year

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Proposed Revisions

Proposed Plan B

- No reduction in irrigated acres
- 10 inch base allocation (30 inches over 3 years)
- Able to buy additional inches
- Incentive program

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Proposed Revisions

Proposed Plan B Allocations

- No over use of base allocation water in water-short years
- Maximum use in normal year 14"
- Maximum reserve - 6"
- Penalties for over use

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Proposed Revisions

Proposed Plan B Water Purchasing

- First 10" (base allocation) no charge
- Purchase 4" in water short year
- Purchase 6" in normal year
- Fees used to fund incentive programs for permanent or temporary retirement of acres

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Proposed Revisions

- **Municipal**
 - Based on population and area of community
 - Industrial use may be credited to total use and accounted for as an industrial allocation
 - Formula allows for new development
- **Livestock Operation Uses**
 - Table with maximum reasonable quantities
- **Industrial Uses**
 - Industrial uses must be certified

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Other Probable Rules

- **Moratorium**
 - Permanent
 - Exceptions: Replacement wells, backup wells, municipal wells
- **Transfers – Temporary and Permanent**
 - A portion or all of existing allocation could be transferred
 - Registration of a well could be transferred to another use for the same or different use

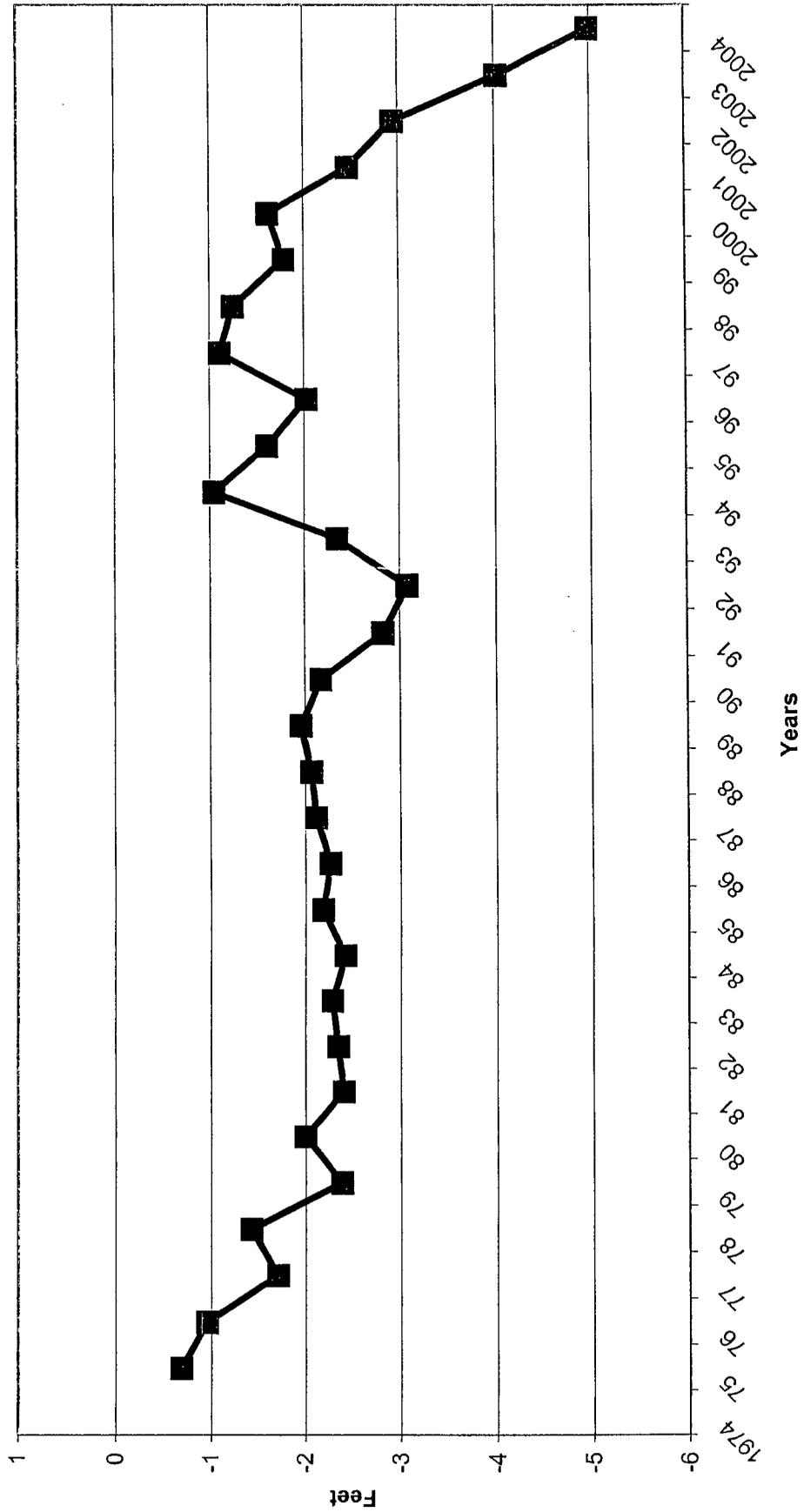
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Other Probable Rules

- **Meter Program**
 - NRD reads and maintains meters
 - Service program provided by NRD
- **Replacement Wells**
 - Still allowed but limited to historical use of the well being replaced

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Cumulative Change
Spring Measurements
2004



MIDDLE REPUBLICAN NRD

GROUNDWATER MONITORING PROGRAM

Summary Comparison of Spring 2003 to Spring 2004

	FRONTIER	HAYES	HITCHCOCK	LINCOLN	RED WILLOW	NRD
No. Wells lower than <u>Spring2004</u>	29	21	17	22	22	111
No. Wells higher than <u>Spring2004</u>	3	0	4	0	2	9
No. Wells not changed from <u>Spring2004</u>	0	0	0	0	0	0
No. Well <u>not</u> measured	2	0	6	1	3	12
Total No. of Wells in Monitoring Program	34	21	27	23	27	132
Greatest decline in 1 well	-1.53	-2.93	-2.5	-6.47	-6.92	-6.92
Greatest rise in 1 well	1.93	0.16	2.49	0.08	0.54	2.49
Average Water Level Change Spring 2004	-0.53294	-1.23286	-0.48667	-2.02087	-0.86889	-0.9628
Average Annual Decline Since 1974						-0.1663

