United States Department of the Interior
BUREAU OF RECLAMATION
Nebraska Kansas Area Office
McCook Field Office
1706 West 3rd Street
McCook, NE 69001

IN REPLY REFER TO:

NK-100
WTR-4.11

Department of Natural Resources
301 Centennial Mall South
P.O. Box 94676
Lincoln, NE 68509-4676

Subject: Written Testimony, Middle Republican Natural Resources District (MRNRD) Public Hearing

Dear Sir:

Enclosed is the written testimony of the Bureau of Reclamation, Nebraska-Kansas Area Office, submitted for the public hearing records as conducted by the MRNRD regarding the proposed Integrated Management Plan (IMP) for the MRNRD and the Nebraska Department of Natural Resources. Specific comments concerning the draft IMP are included as part of the above referenced testimony.

Thank you for the opportunity to provide testimony. If you have any questions, please contact me at the above address or telephone 308-389-5300.

Sincerely,

Aaron M. Thompson
Area Manager

Enclosure

cc: Ann Bleed, Director
Nebraska Department of Natural Resources
P.O. Box 94676
Lincoln, NE 68509-4676

Continued on next page.

Subject: Written Testimony, Middle Republican Natural Resources District (MRNRD) Public Hearing

cc: Continued from previous page.

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w/enclosure to all

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Statement of the Bureau of Reclamation
Nebraska-Kansas Area Office
Aaron M. Thompson, Area Manager

Regarding Proposed Integrated Management Plan for the Middle Republican Natural Resources District

January 8, 2008

EXPERTISE

This statement was prepared by Bureau of Reclamation (Reclamation) personnel having extensive experience with the hydrology of the Republican River and the construction and operation of Reclamation and Corps of Engineers projects in the basin. This experience also includes considerable involvement with the Republican River Compact (Compact) calculations and the 1998 Compact litigation and 2003 settlement.

RECENT HISTORY

The original Compact, signed in 1942, was negotiated and drafted with the knowledge that significant federal water resource development was being planned for the basin. The natural flow rights associated with the Federal projects have priority dates that vary from 1890 to 1954 and numerous small rights with later priority dates. An increase in groundwater wells in the Basin, for irrigation development, became particularly evident in the late 1960's. The development of these wells has significantly impacted the water supply for the Federal projects.

On May 26, 1998, Kansas filed a complaint with the United States Supreme Court (Court). Kansas alleged that the use of groundwater wells had resulted in the appropriation by the State of Nebraska of more than its allocated equitable share of the waters of the Republican River. In 2000 the Supreme Court ruled that the Republican River Compact restricts a compacting State's consumption of groundwater to the extent the consumption depletes stream flow in the Republican River Basin. A Stipulated Settlement was reached and approved by the Court in May 2003. This Stipulated Settlement established general terms governing the settlement, Compact accounting, and additional administration requirements.

In 2007, the NRD Coalition signed agreements with several irrigation districts to lease portions of their water supplies to assist with Nebraska's Compact Compliance. Due to current pending litigation it is uncertain when or if payment will be made to these irrigation districts. This uncertainty could negatively affect the irrigation districts and Reclamation's willingness to enter into similar agreements in the future.

COMPACT RULES AND CALCULATIONS

Changes to the Compact accounting calculations resulting from the 2003 Settlement Stipulation included the accounting of all groundwater depletions and averaging the states' consumptive use and its Compact allocation over a period of years. The accounting procedure relating to reservoir storage was also changed such that water stored in Federal reservoirs is not counted as part of the basin Computed Water Supply (CWS) until it is released from the reservoir. Water released from Federal reservoirs becomes CWS subject to allocation, only after it is either diverted for use or flows by a Compact gage. This CWS, is allocated among the three states according to the terms of the Compact. Since Nebraska receives the largest allocation of the CWS, the release of stored water for diversion and use by Nebraska irrigation districts is generally beneficial to Nebraska's Compact compliance. This release of stored water increases Nebraska's Compact allocation by an amount that exceeds the resulting consumptive use assigned to Nebraska. This results in a net positive contribution to Nebraska's Compact compliance. On the other hand, pumping of groundwater in Nebraska results in an increase to Nebraska's allocation that is less than the increase in consumptive use that results from the groundwater use. Because of the large percentage of basin groundwater used by Nebraska, these groundwater depletions have resulted in significant Compact compliance deficits for Nebraska.

CURRENT CONDITIONS

For the 1998-2002 baseline period, Nebraska's total annual allocation averaged 288,000 acre-feet/year. The Compact accounting for 2003 through 2006, show Nebraska's annual allocation has averaged 205,000 acre-feet and Nebraska's annual use has averaged 250,000 acre-feet, resulting in Nebraska's computed beneficial consumptive use exceeding its allocation. This deficit corresponds with the reduction in surface water supplies in the basin. Nebraska is currently using about 75% of the total water being used in the basin while it is allocated only about 56% of the total CWS. This has created the deficits ranging from about 25,000 to 40,000 acre-feet annually since Compact Settlement accounting was initiated.

CONCERNS

Reclamation is very concerned with Nebraska's failure to meet Compact compliance. Reclamation is even more concerned about the continuing depletion of inflows to the Federal reservoirs. Federal projects were constructed based on the concept that project surface water rights would be protected. Prior to construction of the Federal Dams, a Definite Plan Report (DPR) was prepared by Reclamation. The following table shows the average flows that were included in the DPR compared to the actual flows experienced since 1956. The table depicts the historic decline of inflows since the projects were first developed. Of specific concern is the inflow decline over the last 20 year period. This decline cannot be attributed to a decline in precipitation. The average precipitation occurring at the Republican River Compact Administration precipitation

stations for the 1986-2005 period was 20.98 inches, which is 103% of the 1918-2005 average.

RESERVOIR INFLOW COMPARISONS – Acre-Feet

RESERVOIR	DPR AVERAGE	20 Yr. AVERAGE 1956-1975	20 Yr. AVERAGE 1986-2005	5 Yr. AVERAGE 2001-2005	ACTUAL 2006
SWANSON	115,300	102,000	45,000	17,700	12,000
HUGH BUTLER	19,300	22,900	15,300	10,600	8,500
HARRY STRUNK	56,800	55,600	38,200	31,300	27,000
HARLAN COUNTY	359,000	309,000	146,700	67,100	30,000
TOTALS	550,400	489,500	245,200	126,700	77,500
Percentage of DPR		89%	45%	23%	14%

Reduced surface water supplies have caused project water deliveries, throughout the Basin, to decline over the last 40 years. Activities in the MRNRD directly impact the water supply for several canals associated with Federal projects in the Basin. Declines of return flows from these canals has reduced supplies to downstream Federal projects. The following table indicates the canal deliveries for several time periods showing a progressive decline in water deliveries to the farms.

WATER DELIVERIES – INCHES/ACRE

	CULBERTSON CANAL	CULBERTSON EXTENSION CANAL	MEEKER-DRIFTWOOD CANAL	RED WILLOW CANAL	BARTLEY CANAL
1966-1975	16.8	14.6	16.8	13.7	15.9
1976-1985	13.5	7.9	13.5	12.7	13.6
1986-1995	12.4	5.1	12.4	12.5	10.7
1996-2005	7.1	2.7	7.1	7.1	6.1
2006	0.0*	0.0	0.0	0.0	4.9
2007	0.0*	0.0	0.0	0.0	0.0

* No storage water delivered; natural flow sold to DNR and NRD's.

Under Legislative Findings, Nebraska Statute 46-703, "The Legislature further finds: (1) The management, conservation, and beneficial use of hydrologically connected ground water and surface water are essential to the continued economic prosperity and well-being of the state, including the present and future development of agriculture in the state; (2) Hydrologically connected ground water and surface water may need to be

managed differently from unconnected ground water and surface water in order to permit equity among water users and to optimize the beneficial use of interrelated ground water and surface water supplies; . . (4) The Legislature recognizes that ground water use or surface water use in one natural resources district may have adverse affects on water supplies in another district or in an adjoining state. The Legislature intends and expects that each natural resources district within which water use is causing external impacts will accept responsibility for ground water management in accordance with the Nebraska Ground Water Management and Protection Act in the same manner and to the same extent as if the impacts were contained within that district; . ."

According to NE Stat. 46-715, the Integrated Management Plan (IMP) should include clear goals and objectives with the purpose of sustaining the balance between water uses and water supplies. Reclamation is very concerned with this balance in the Basin as it relates to surface water supplies for existing surface water uses.

REALITY

Republican River Compact overall allocations for Republican River waters are Nebraska 49.0%, Kansas 39.7% and Colorado 11.3%. Nebraska groundwater pumping is currently causing over 80% of the depletion to the streamflows in the Basin. As long as the groundwater depletion is at this at or near this percentage level, significant surface water will be needed to offset Nebraska's groundwater depletion and to achieve Compact Compliance. The deficit offset is likely to be as much as 60,000 to 75,000 acre-feet per year.

It is obvious to Reclamation that the use of available storage water from the Federal projects by irrigation districts is beneficial to Nebraska's Compact compliance. Continuing to allow pumping at the current levels or even a 20% reduced levels will only further reduce streamflow resulting in a reduction in the quantity of stored water available to supply surface water users. Reducing groundwater depletions will gradually allow the streamflows to recover and result in improved chances of maintaining long term compliance. Storage water use during normal operations by the irrigation districts improves the chances of Compact compliance as this increases the total CWS allocated to Nebraska by more than the accounted consumptive use charged to Nebraska.

COMPACT ADMINISTRATION

The hydrologists and others associated with the Compact Administration have stated that significant reduction in groundwater depletions is necessary for Nebraska to come into long-term compliance with the Compact. Although Colorado has been slow to act it now appears that they are in the process of making significant reductions in its groundwater use to achieve Compact compliance. Reclamation agrees that long-term Compact compliance can only be achieved through significant reductions in groundwater use in Nebraska and Colorado.

EXPECTATIONS

The Bureau of Reclamation expects the water rights associated with the authorized Federal multipurpose projects located in the Republican River Basin, be protected by Nebraska Department of Natural Resources and the Natural Resource Districts. Reclamation expects to continue to operate the Federal projects for their authorized purposes. With the exception of wet periods, Reclamation does not believe that the IMP proposed by the MRNRD and DNR will result in Nebraska meeting long-term Compact Compliance. Reclamation requests action by the NRDs and the State of Nebraska to place further and sufficient restriction on groundwater pumping that will allow streamflows to recover, provide equity among water users, and assist Nebraska in achieving Compact compliance.

SPECIFIC COMMENTS

1. Reclamation believes that any waters that appear as streamflow is subject to storage and surface water use in accordance with Nebraska surface water statutes and existing water rights.
2. It's not clear how credits and benefits from streamflow augmentation projects will be calculated.
3. Proposed IMP does not address the need to improve long-term surface water flows, make up existing deficits or provides for long term compact compliance. Improved surface water flows will be needed to achieve long-term compliance.
4. Reclamation has not seen data for other reservoirs in the Republican River Basin but the data for Enders Reservoir indicated that inflows will continue to decline even with an average pumping reduction of 20%. As a result long-term surface water supplies will continue to decline eventually reaching a point where they are unavailable for use or to provide augmentation. Other reservoir inflows are likely to decline in a similar manner.
5. The MRNRD's goal to achieve an average 20% reduction in the pumping volume from the 98-02 baseline volumes is discussed in the IMP. Reductions need to be higher to improve surface water supplies and achieve long-term compliance. Nebraska has been out of compliance since 2003 and surface water supplies have continued to decline.
6. It is difficult to understand the MRNRD's practice of allowing carryover to future years of any unused allocation when there are pumping limits associated with the proposed plan.
7. Under B. Objectives #5 - How would the additional reductions be determined when the accounting computations are not available until after the year is over? What reductions would be required when not in a water short year designation but Nebraska is out of compliance with the Compact?
8. 1st Paragraph Ground Water Controls— Reclamation believes that basin-wide reductions must be made to obtain long-term compliance. Reductions in quick-response areas may be effective to help with short-term compliance but this will not provide long-term compliance.

CONCLUSION AND FINAL STATEMENT

Due to the reduced streamflow in the MRNRD, surface irrigators and their water rights have been adversely affected by receiving inadequate water supplies far less than what was expected from the Federal projects. The reduced water deliveries have significantly reduced the economic benefits provided by the projects. Another impact associated with reduced streamflows is reduced reservoir levels which negatively impacts the recreational and fish and wildlife benefits associated with these projects.

I would like to note that Paragraph V of the Integrated Management Plan states the goals and objectives of an integrated management plan must have as a purpose "sustaining a balance between water uses and water supplies so that the economic viability, social and environmental health, safety, and welfare of the Republican River Basin can be achieved and maintained for both the near term and the long term." Sustained surface water inflows to the Federal reservoirs are essential to provide not only irrigation benefits, but also significant recreation and fish and wildlife benefits to the area.

Of grave concern is goal number 4 as stated in the draft IMP. Goal number 4 states: "Reserve any streamflow available from regulation or supplemental programs, enacted or implemented to maintain compact compliance from any use that would negate the benefit of such regulations or programs." The Federal reservoirs and surface water irrigators have a severely diminished water supply. The interpretation that has to be assumed from Goal number 4 is that there never will be an improved, restored surface water supply. This is not consistent with Nebraska Statute 46-703 and is not acceptable to Reclamation. It needs to be noted that the most senior water rights in the basin are the surface water rights that are currently not being provided "equity among water users" and with Goal number 4, will not be in the future.

In conclusion, Reclamation is fully supportive of the Federal projects and these projects continuing to operate as planned and authorized. Continued operation of these projects requires the protection of existing water rights and restoration of inflows to the reservoirs. Reclamation requests action by the NRDs and the State of Nebraska to protect and restore streamflows and inflows to the reservoirs, provide equity among water users, and assist Nebraska to achieve Compact compliance.

Aaron M. Thompson, Area Manager