

## System Administrator

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**Sent:** Friday, June 11, 2010 8:17 AM  
**To:** Barfield, David; Ross, Scott; Juricek, Chelsea  
**Cc:** Thompson, Aaron M; NKA CFiles  
**Subject:** Upper Republican NRD Hearing--June 10, 2010  
**Attachments:** Written Testimony URNRD June 10 2010.pdf

All:

As requested is the written statement that was submitted at the URNRD Hearing.

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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  
Upper Republican Natural Resources District**

**June 10, 2010**

**INTRODUCTION**

The Bureau of Reclamation (Reclamation) recognizes the appropriate role of the State of Nebraska to establish and enforce water policy. The current State water policy of developing and implementing Integrated Management Plans (IMP) is a step in the right direction. However, Reclamation is concerned that the IMP proposed by the State and the Upper Republican Natural Resource District (URNRD) is inadequate. It fails to protect Reclamation's senior water rights from direct and substantial groundwater development of the hydrologically connected waters of the Republican River Basin (Basin) that occurred following approval of the Compact and subsequent investment of infrastructure.

Reclamation contends the State water policy that has evolved following approval of the Republican River Compact (Compact) ignores the physical reality of the hydrological connection between surface and groundwater sources. The policy separation between surface and ground water has lead to an overdevelopment of the finite water resource in the Republican River Basin. As a result, the investment of the United States in the development of infrastructure is in jeopardy. The irrigation, recreation, and fish and wildlife benefits are currently below their potential as envisioned and authorized by Congress. The taxpayers of the United States have an expectation that their investment will be protected, which includes water rights held by the United States.

Reclamation offers to assist both the State and URNRD in developing a long term solution to the issue of Compact compliance that recognizes the hydrologic connection between surface and groundwater, and protects senior water rights. A potential option is the establishment of a water market as exists in other Reclamation states, such as the system that presently exists in the South Platte River Basin in Colorado.

**COMPACT HISTORY**

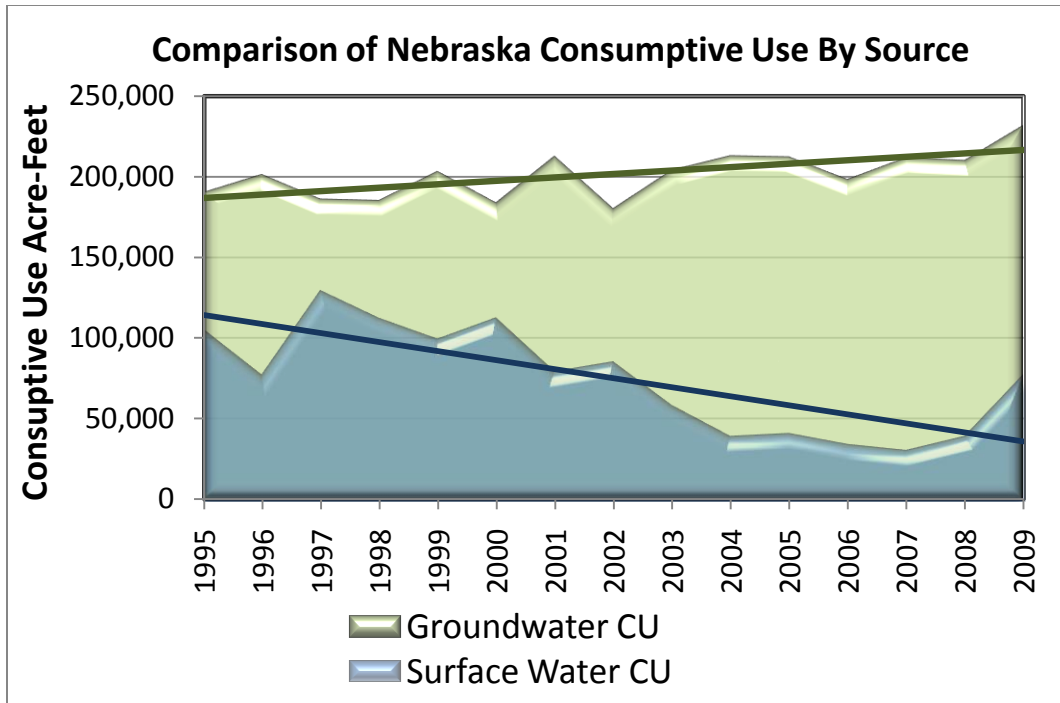
During the late 1930s when Reclamation was initially investigating the water projects in the Basin, we recognized the first step to Federal water development was negotiation of a compact between Nebraska, Kansas, and Colorado allocating water between the states. This was needed to prevent conflict between the states and to insure long term project feasibility to protect the large Federal investment. Reclamation requested the states enter into negotiations to complete this necessary step. Reclamation stated in a 1940

Reconnaissance Report on the Basin (Project Investigation Report No. 41): “To avoid expensive litigation as a result of possible conflicting uses of water in the various states, further developments for irrigation should be preceded by a three-state compact or similar agreement on use of water.” This report was one of many sources of information used by the three states to develop the Compact. Reclamation also assisted the states in the Compact negotiations by preparing hydrology analysis for the Basin and sharing Reclamation’s preliminary water development plans with each of the states. The first attempt to adopt the Compact by the states was vetoed by President Roosevelt because the United States did not participate in the negotiations of the Compact. After participation by the United States, the Compact was renegotiated and revised to include Articles 10 and 11. The renegotiated Compact was signed by the states and the representative of the United States on December 31, 1942. Ratification of the Compact by the States and the U.S. Congress followed in 1943.

After the Compact was finalized, this water allocation became the framework for the final planning and design of a system of Federal reservoir and irrigation projects that would assist each of the states in developing their allocated share of the Republican River. Reclamation believed by acquiring necessary state water rights and designing its projects within each state’s allocated share of the water, the water supply for these Federal projects would be protected against future water development. Between the late 1940s and 1960s eight Federal dams and reservoirs were constructed in the Basin. Reclamation entered into repayment or water service contracts with each of its irrigation districts in the Basin to provide for repayment of the irrigation portion of construction and their associated operation, maintenance, and replacement (OM&R) costs for these projects. This was done with the expectation that the irrigation districts would be able to repay their share of the project costs, protecting the invested interest of the taxpayers of the United States.

## **COMPACT ACCOUNTING**

From 2003 through 2006, Nebraska’s allocation averaged 205,000 acre-feet and Nebraska’s use averaged 250,000 acre-feet, each year resulting in computed beneficial consumptive use exceeding Nebraska’s allocation. During this period Nebraska ground water pumping caused nearly 80% of the ground water depletions to the streamflows in the basin. The following graph shows Nebraska’s ground water and surface water consumptive use since 1995. Statistical trend lines have been added to the graph to show how these consumptive uses have changed over time. Ground water consumptive use has gradually increased over time, while there has been a sharp decline in surface water consumptive use.



Reclamation testified at each of the IMP hearings that surface water supplies in the Basin began to decline significantly in the late 1960s, right at the time ground water development in the Basin was expanding at a rapid rate. The use of surface water is not the reason Nebraska has failed to be in compliance with the Compact. Surface water use has decreased over time. Because of the current level of ground water use in the basin, ground water depletions have resulted in significant Compact compliance deficits for Nebraska. This draft IMP continues to allow for the unreasonable use of surface water supplies to make up for deficits caused by years of ground water overuse. In water-short years, surface water users experience significant water shortages because of imposed reductions in surface water supplies while ground water users have the capability to pump sufficient ground water to meet most of their irrigation demands. As a result, ground water depletions to surface flows have continued to gradually increase while surface water depletions continue to decline.

## 2009 ARBITRATION

Reclamation testified at the Republican River Compact Arbitration hearings in April 2009 and stated our concern that without additional limits and controls on ground water use, the surface water supplies in the Basin will continue to decline making it more difficult for Nebraska to meet Compact compliance in the long term. Reclamation concurs with Arbitrator Dreher's decision that "...Nebraska's current IMPs are inadequate to ensure compliance with the Compact during prolonged dry years" and "Nebraska and the NRDs should make further reductions in consumptive ground water withdrawals beyond what's required in the current IMPs." It is our position that ground water consumptive use must be reduced to a level that will allow base flows to recover to

an extent that will allow Nebraska to consistently comply with the Compact in both the near term and long term. This is the only way Nebraska can meet the IMP goal of “sustaining a balance between water uses and water supplies . . .” Likewise, Arbitrator Dreher noted in his Final Decision that “Nebraska’s problem in complying with the Compact is groundwater CBCU, not surface water CBCU.” As long as ground water depletions continue to increase, there will be less and less surface water supplies available to offset the deficits caused from ground water pumping.

## **CONCERNS AND EXPECTATIONS**

Reclamation is very concerned about Nebraska’s failure to meet Compact compliance since compliance accounting was reinitiated in 2003. Reclamation is even more concerned about the continuing depletion of inflows to Federal reservoirs. Federal projects were constructed based on the concept that project surface water rights would be protected. The trend of declining ground water levels will result in continuing stream flow depletions. This draft IMP fails to address impacts from past ground water use and future ground water declines that will cause direct and substantial depletions in stream flows.

Reduced surface water supplies have caused Federal project water deliveries, throughout the Basin, to decline during the last 40 years. Ground water pumping in the URNRD directly affects the water supply for several canals associated with the Federal projects in the Basin. A decline of return flows from these canals has reduced supplies to downstream Federal projects as well. According to NE Stat. 46-715, the IMP should include clear goals and objectives with the purpose of sustaining the balance between water uses and water supplies for both the near term and the long term. Reclamation is very concerned with this balance in the Basin as it relates to surface water supplies for existing surface water uses.

Reclamation expects the water rights associated with the authorized Federal multipurpose projects in the Basin be protected by the State of Nebraska and the NRDs. Reclamation expects to continue to operate the Federal projects for their authorized purposes. Reducing ground water depletions is the only way to gradually allow the streamflows to recover, provide equity among water users, and assist Nebraska in achieving long term Compact compliance.

## **SPECIFIC COMMENTS**

1. Goal 4 – “protect ground water and surface water users...from stream flow depletions caused by surface water or ground water uses begun after the date the river basin was designated as fully appropriated”. This goal is not being met and will not be met by the proposed IMP. Records indicate depletions from ground water have increased since 2004 and ground water levels are continuing to decline.

2. Goal 5 – “reserve any streamflow available from regulation, incentive programs, and purchased or leased surface water required to maintain compact compliance from any use that would negate the benefit of such regulations or programs...”  
Since any water that appears as streamflow is subject to storage and surface water use in accordance with Nebraska state statutes, how does the state intend to meet this goal?
3. The IMP requires a 20% reduction in pumping to a level no greater than 425,000 acre-feet but then allows higher pumping above 425,000 acre-feet in years with lower than average precipitation. Years with below average precipitation are also “water short” years. Allowing higher pumping levels in these years works against compliance and equity between surface water users and ground water users.
4. The URNRD’s current pumping volumes are near a 20% reduction from the ‘98-‘02 baseline volumes discussed in the IMP. The ‘98-‘02 baseline is not representative of average pumping as this was a dry period when pumping rates were high. Reductions need to be higher to improve surface water supplies and achieve long-term compliance. Reducing allocations by more than 20% will provide a cushion to offset deficits in dry or water short years. This would reduce the need for other users to unfairly make up the deficit.
5. The proposed IMP does not address improving long-term surface water flows nor make up existing deficits. Improved surface water flows will be needed to achieve long-term compliance.
6. The Surface Water Controls as described in section VII.F are vague and do not describe the intent of “Compact Call.”
7. The “Compact Call Year” is not defined in the draft IMP. Also a number of the terms under the Compact Call Year evaluation are not clear.
8. The IMP indicates that a “Compact Call” will be placed on the river at Guide Rock or Hardy on all natural flow and storage permits. This call would appear to prevent storing water in Harlan County Lake decreasing the water supply for the Bostwick Division. This call would also appear to prevent the diversion of natural flow into the Courtland Canal. Is this the intent of the Compact Call? This could also increase the number of years that are designated as “water-short years” under the terms of the Final Settlement Stipulation (FSS).
9. Closing all natural flow rights and storage rights while not curtailing all ground water wells hydrologically connected to the streams (as defined by the FSS) is discriminatory and does not provide equity between water users (a primary goal of the IMP).
10. The IMP states that a “Compact Call” is on until such time that administration is no longer needed. The IMP is unclear whether any ground water use will occur in the Rapid Response Area during a “Compact Call Year”. Will ground water use remain off during the entire year when a “Compact Call” has been placed?
11. The IMP does not define “allowable surface water depletions.” A better understanding of the surface water user’s share of allowable depletions is needed. Surface water supplies are already reduced during “water short” years. Ground water consumptive use has remained the same or increased and, under the IMP a higher volume of ground water pumping is allowed in years with below average

precipitation. This is completely contrary to providing equity between surface water uses and ground water users.

## CONCLUSION

Reclamation is supportive with Nebraska's effort to comply with the Compact. However, a plan that essentially curtails all surface water use and continues to allow ground water use and ground water mining to occur in the Basin is unreasonable and not acceptable. This is not consistent with Nebraska Statute 46-715 as surface water users are not being provided equal protection among all water users. Reclamation views our Federal water rights as property rights that must be provided equal protection. The fiscal investment of the taxpayers of the United States must also be protected. In doing so, the IMPs should not ignore the physical reality that ground water and surface water are hydrologically connected and the administration of the water supply in the basin should be consistent and equitable for all water users.

Additionally, the proposed revisions to the IMP do not allow Reclamation to operate as authorized by the U.S Congress. If adopted, this IMP would prevent Reclamation from performing its contractual obligations of delivering water to irrigation districts in "Compact Call" years. Federal projects were specifically designed to be in compliance with the Compact and our use has not increased over time but decreased as a result of uncontrolled depletions upstream of our reservoirs. Inadequate water supplies, because of depleted stream flows in the URNRD, adversely affect surface irrigators who were planning on supplies expected after the signing of the Compact. Depleted surface water deliveries directly and substantially reduce the economic benefits provided by the Federal projects.

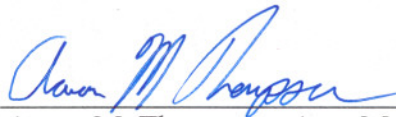
Reclamation needs a better understanding on how the surface water controls of this proposed IMP will work. If the state recognizes the administration of water in the basin for Compact compliance as a "beneficial use" then the senior water right holders in the basin should be compensated. Bypassing inflows from upstream reservoirs to store water in Harlan County Lake is, in our view, a "selective call." Two of Reclamation's reservoirs upstream are senior to Harlan County Lake and the other reservoirs have an equal water right priority to that of Harlan County Lake. Additionally, if all natural flow permits are closed, as indicated in the proposed IMP, what authority will be used to supply water to the Courtland Canal and Lovewell Reservoir during "Compact Call" years? If the water cannot be stored or diverted as indicated in this IMP, then the water flowing through our reservoirs is no longer project water. Reclamation does not currently have authority to transfer non-project water through Courtland Canal for a non-project use. Finally, Reclamation is concerned that "Compact Call" years could result in surface water users losing irrigation supplies for multiple years as the reservoirs ability to store water is reduced. The financial viability of our irrigation districts, which supplies water to approximately 700 users in Nebraska, would be in jeopardy if this would occur. This is unreasonable. Other impacts coupled with reduced reservoir levels will occur to recreational and fish and wildlife benefits associated with these projects. It is our understanding that DNR predicts surface water users will be curtailed 2 out of 10 years.

Please provide us with the modeling and supporting data showing the frequency that surface water curtailments will occur.

As an alternative, Reclamation believes the water supplies of the basin should be managed fairly across the basin for all water users. A long term conjunctive management approach should be developed that allocates consumptive use in an equitable manner across the basin. This approach would allow water to be marketed between all users based on consumptive use. Surface water should be provided with an equitable share of Nebraska's consumptive use during "water short" years. We again want to stress that the earliest water rights in the basin are the surface water rights that are currently not being provided "equity among water users" and if this IMP is adopted, will not be in the future. Sustained surface water supplies are critical for project viability and Nebraska's ability to be in compliance in the long term.

In conclusion, Reclamation is willing to continue working with all the NRDs, Irrigation Districts, and State as they seek compliance with the Compact. The IMP should recognize and protect the investment of the United States' taxpayers made decades ago. To ensure compliance in the long term, Reclamation believes there must be a healthy surface water component in the Basin. To accomplish this, we believe reduction in ground water pumping must be significantly more than currently provided in the IMP to allow base flows to begin to recover. Ground water pumping and other upstream uses are progressively depleting reservoir inflow.

Reclamation is hopeful as you finalize the IMP that you will study the presented testimony and respond to our specific questions and concerns we have presented in this statement.



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Aaron M. Thompson, Area Manager