

file - requested mat'l

To: Jeanne Glenn

From: Ann Bleed

Re: Benefits and Costs of Surface Water Leasing

Reducing ground water pumping reduces the consumptive use of water in the basin, but, due to the inertia of the ground water system, has little impact on stream flows until several year after the reductions or later, depending on the distance of the well from the river. Reducing surface water diversions and releasing stored water from reservoirs not only reduces consumptive use from irrigating crops and from the evaporation of water from the reservoir, but also has an immediate impact on stream flow. Another year of leasing surface water would bring us closer to Compact compliance and help to assure Kansas that Nebraska is serious about Compact compliance. Therefore the DNR and the NRDs are again considering leasing water from the surface water irrigation districts.

Unfortunately, due to low stream flows, there is not an abundance of surface water available for lease. Surface water diversions themselves in 2005 were 57% than the average diversions between 1998 and 2002. Also, until last week, we did not expect there to be any significant water supply in either the Swanson or Harlan County Reservoirs. Recent snows and rain have raised the expected supply of water in Harlan County Reservoir from zero to 20,200 acre feet. The potential for additional natural flow for Bostwick Irrigation District has also increased.

The following table shows the costs and benefits of the water leases the State purchased last year. The Middle Republican Natural Resources District paid \$50,000 of the purchase of the Riverside Irrigation District water.

2006 Irrigation District	Water Available AF	Cost	\$/AF Cost	Benefit AF	\$/AF benefit
Frenchman Valley	6,400	\$ 400,000	\$ 63	3,672	\$ 108.93
Riverside	2,000	\$ 100,000	\$ 50	1,256	\$ 79.62
Bostwick	15,118	\$ 3,000,000	\$ 198	17,762	\$ 168.90
Total/Average	23,518	\$ 3,500,000	\$ 104	22,690	\$ 154.25

This year we are discussing possible leases with all of the above districts plus the Frenchman Cambridge Irrigation District, which will have 26,000 acre feet of storage available. We expect the water available from the Riverside and Frenchman Valley

Irrigation Districts to be about the same this year as last. At this point we do not know exactly how much water would be available from the Nebraska Bostwick Irrigation District, but with the recent rains and snow it could be from 20,000 to 30,000 acre feet. All districts except Bostwick Irrigation District have already expressed an interest in leasing their water. We have initiated discussions with the Bostwick Board, but they have not yet indicated whether they are willing to consider a lease.

I have made it absolutely clear to all the irrigation districts that DNR does not have funding available to pay for these leases. However, the NRDs have indicated they are interested in trying to raise funds for at least some of these leases. I therefore agreed to assist in negotiating a potential water lease. Given the price of corn, the costs to lease this water will probably be higher than last year. Initial bids by the irrigation districts are as shown in the table below. The Bostwick Irrigation District bid is shown in yellow because they have not yet provided a bid.

The use of the Frenchman Cambridge Irrigation District water will depend on obtaining permission to change the location of use from the U. S. Bureau of Reclamation. This will involve an assessment under the National Environmental Protection Act (NEPA). The Bureau of Reclamation office in Grand Island is currently assisting the state in obtaining the necessary approvals from Washington. The use of the Bostwick water would require the willingness of Kansas Bostwick Irrigation District to use the water. This was not a problem last year.

2007	Water Available AF	Cost	\$/AF Cost	Benefit AF	\$/AF benefit
Frenchman Valley	6,400	\$ 640,000	\$ 100	3,672	\$ 174
Riverside	2,000	\$ 120,000	\$ 60	1,256	\$ 96
Bostwick	15,000	\$ 3,000,000	\$ 200	17,762	\$ 169
Frenchman					\$
Cambridge	26,000	\$ 10,400,000	\$ 400	11,960	\$ 870
Total/Average		\$ 14,160,000		29,722	\$ 476

Compliance with the Republican River Compact in Water-Short Years requires that Nebraska's average Computed Beneficial Consumptive Use (CBCU) be less than its two year running average Allocated supply. Although the final computations for the years 2005 and 2006 are not completed, even with the surface water lease, we are expecting our CBCU will be greater than our Allocation by a total for the two years of around 58,000 acre feet. Given expected stream flows for 2007, we expect next year's Allocation for Nebraska will also be very low and thus another year of leasing would be extremely helpful in trying to achieve Compact compliance. Unless stream flows unexpectedly

improve significantly, however, the lease will not keep Nebraska's CBCU under its Allocation.

If the State decides to move forward with any surface water leases, we will have to move quickly. Planting season is about to begin and therefore we will need to provide an answer to the districts before the end of March. Last year we were able to confirm a deal pending final approval of the budget by the legislature and the governing based on the stated intention of the Governor and the appropriations committee to approve funds for the lease. The districts were not paid until July. The districts understand that we would have to have a similar type of agreement this year.