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Subject: Nebraska IMPs - Points to Considered 9-1-10_ Brad comments
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Attachments: Nebraska IMPs - Points to Considered 9-1-10_ Brad comments.docx

Nebraska IMPs
Key Issues to Consider

Goals and Objectives:

1. Groundwater and Surface Water Protection and Sustainability. The main goal of the Integrated Management Plans (IMPs) should be to provide effective conjunctive management of surface water and groundwater use to ensure that these vital resources are protected and sustained. To accomplish this, groundwater use must be reduced to a level that prevents groundwater mining and allow the groundwater level and surface water flows to start a gradual recovery. Providing sustainability should be a primary goal for each NRD as well as the basin as a whole. Meeting Compact compliance should be a secondary goal of the IMPs after first meeting the goal of sustainability. Meeting the goal of sustainability will go a long way in providing Compact compliance and minimize the need for drastic measure during water short years.
2. Meet the Terms of the Final Settlement Stipulation (FSS) - Moratorium on New Wells. The first issue addressed in the FFS is a Moratorium on New Wells. The intent of this was to cap new development preventing the addition of new irrigated lands after 2002. It is our understanding that while no new wells were drilled after 2002, there were a large number of new irrigated lands added after 2002, under wells that had been previously drilled but not developed. It is Reclamation position that the development of any new lands after 2002 is in violation of the FSS unless these lands replace existing irrigated lands taken out of production after 2002. The IMPs should address this issue and require that any new irrigated lands, developed after 2002, be curtailed or substituted for other lands that were in use prior to 2003.

Equity:

1. Method for Allocating Water Between NRDs: The first issue that should be addressed in determining an effective method for allocating water between the three NRD is the need to have sustainability for each of the three NRD. Since some areas are using groundwater at a much high rate than recharge, the reduction in use for this area may need to be higher than in other areas. While this may not appear to be equitable it is necessary to protect and sustain the future water resource for that area. The groundwater model should be used to the degree possible to determine what the allowable level of use is for each of the NRDs that provides sustainability for both groundwater and surface water supplies. Once these values are determine than they should be used to develop a percentage allocation for each of the three NRDs. In addition any imported water such as the water entering the Republican River from the groundwater mound in the Platte River Basin should be discounted before determining the allocation percentages. Since this imported water is not part of the natural supply its benefit should be shared equally by all of the resource districts in the Republican River basin.
2. Curtailment of Surface Water Use and Rapid Response Wells during Water Short Years: A method needs to be developed to ensure equity between users that are

curtailed in water short years and GW users that are allowed to continue to pump. Either the water users that are curtailed need to be compensated for their loss of water or additional restrictions need to be added to the non-curtailed users in future years to make up for loss of water to the curtailed users. If monetary compensation cannot be provided then the water allocation for the non-rapid response wells should be set at a lower level to provide equity between groundwater users. It appears that the only way to ensure equity for surface water users is to provide monetary compensation or set a low allocation for all groundwater users that will minimize the need for surface water curtailment. This might be done by using something like a 40 percentile year for determining the allowable groundwater depletion rather than a average (50 percentile) year.

3. Recognition of Earlier Rights: Water users who developed and have beneficially used water for several decades should have a priority of use ahead of newer development, especially that development over the last 20 years. It is the water development since the late 1970s that has resulted in groundwater mining and out of compliance use by Nebraska not the earlier development. While this prior right is recognized between surface water users under the prior appropriation doctrine it has not been recognized for groundwater use. It is our understanding that the IMPs can be structured to provide some recognition of priority for groundwater use after July 1, 1997. To provide equity groundwater users who developed their land after July 1, 1997 should have their use curtailed during water short years before curtailing the rapid response wells and surface water use.

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4 Water management outside the District Boundary: Nebraska State Statutes 46-703.4 states, 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; NRDs need take responsibility for harm caused to downstream water users in other District and adopt rules to restore equity or provide compensation for the damages.

5 It is unwise and not advisable to pass water thru upstream reservoirs based on a dry year projection, once the water is released there is no way to get it back if significant runoff events would occur downstream nullifying the benefit of the releases. Storage permits should not be subject to the compact call. Unless fair and equitable compensation is provide.

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~~3.~~ In addition the bypass of inflows thru HCL invalidates the requirement of the FSS relative to the determination of a Water Short Year as well as the determination of the 130,000 af irriagion supply. The calculation in those years is meaningless and contrary to the intent of the Concensus Plan. This would likely require RRCA concurrence.

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Use of Averages:

1. Short Term Average: The use of some averaging of water use that is consistent with the terms of the FSS is reasonable as long as it is managed in a way that facilitates Compact Compliance. Averaging should not be used in a manner that results in a need for larger water use reduction in water short year than would be required without the use of a short term average.
2. Long Term Average: Using averages for groundwater allocation on a long term basis needs to be carefully structured such that groundwater users do not use this to simply buy time before taking necessary action to reduce their use. If a long term average is used it should be structured to establish a water allocation ceiling that cannot be exceeded. Thus if a groundwater users uses less than his allotment in one year he may over use water in the follow year or years as long as his long average use in any one year does not exceed his allocation. Also if stepped reduction in the GW allocation is used such as suggested in some of the IMPs (an addition 1% reduction for the next 5 years) a clear explanation is needed to describe how this will be implemented using long term averages. As an example if a water user is just within his allocation for the last 10 years and the allocation is reduced by 1% for the following year how will his average use be determined to show that he is within the new allocation?
3. Allowing a Higher use of Water during Dry Years: The IMPs should not allow a higher use of water during dry years unless the GW users, on the average, is below his allocation and a higher use in a given year will not result in his average use in that year exceeding his allocation. Low precipitation years are the same years when a Compact Call is likely and an increase in use only exasperates Compact compliance problems.

Forecasting Water Supply and Determining Allowable Groundwater Depletions

1. Forecasting Water Supply: The method purposed by the DNR for forecasting the upcoming year's water supply appears to be a reasonable and effective method. This method should be incorporated as an integral part of the IMP as it is essential for meeting Compact compliance on a year by year basis. Consideration should be given to using 1997-2005 (rather than 1999-2005) for developing the forecast for surface water use as this would provide a larger sample of years coverings water use from the time the Nebraska reservoirs were full following the flood year of 1996 through the drought period when reservoir storage was greatly depleted. Using this period of years results in the same or a slightly between R^2 value indicating a very strong correlation between reservoir storage and water use. Since 1996 was a flood year it is not a representative year for developing a correlation between reservoir storage and water use.
2. Allowable Groundwater Depletion: We agree with the method for calculating the Allowable Groundwater Depletion as proposed by the DNR. In the Upper and Middle IMPs the term "allowable surface water depletion" is used. Since the surface water use is only limited by the naturally available supply from year to year along

with water availability under the prior appropriation doctrine we do not agree that this term should be used as it implies that surface water depletion are somehow allocated as is groundwater depletions. To avoid confusion the term "allowable" should not be included in front of "surface water depletion" in the IMPs.

Defined Terms