

Pam Andersen

From: Ann Bleed [ableed@dnr.state.ne.us]
Sent: Sunday, February 19, 2006 4:14 PM
To: Tina Kurtz; Pam Andersen; Brian Dunnigan; Ann Diers
Subject: Fw: Draft Tri-Basin NRD Integrated Management Plan

Do we want to comment on the process as well as the plan? Ann

----- Original Message -----

From: John Thorburn
To: [Bob Dahlgren](#) ; [Ann Diers](#) ; [Don Kraus](#) ; [Brian Barels](#) ; [Keith Koupal](#) ; [Laurel Badura](#) ; [Matt Gregg](#) ; [Russell Edeal](#) ; [Tina Kurtz](#) ; [Mike Edelman](#) ; [Vernon J. Nelson](#)
Cc: "[Gary Lindstrom](#)" ; [Phyllis Johnson](#) ; [Dick Helms](#) ; [Ed Harris](#) ; [Dave Nelson](#) ; [Brad Lundeen](#) ; [Ann Bleed](#) ; "[Dean E. Edson](#)" ; [Don Blankenau](#) ; [Mike Klein](#) ; [Richard Holloway](#) ; [Robert McCormick](#) ; [Steve Smith](#)
Sent: Friday, February 17, 2006 12:07 PM
Subject: Draft Tri-Basin NRD Integrated Management Plan

Dear stakeholders and others:

Please find attached the current draft of the Tri-Basin NRD Integrated Management plan. The Board of Directors have ordered me to give a presentation on the plan at our next meeting on March 14 at 1:30 PM. You are invited to attend this meeting. You are also invited to submit comments and suggestions for edits and revisions of the current draft (attached). I will incorporate and/or point out any suggestions that I receive about the plan during my presentation. After my presentation, the board will decide whether to hold additional meetings to receive public comment, or whether to send the plan back to the Planning Committee for further revision. Please call or email at your convenience with any questions or comments.

Thanks,

John Thorburn

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INTEGRATED MANAGEMENT PLAN
Jointly Developed by the
NE DEPARTMENT OF NATURAL RESOURCES
And the
TRI-BASIN NATURAL RESOURCES DISTRICT
DRAFT DRAFT DRAFT

5/27/05 revised 6/2/05, 8/12/05, 9/14/05, 1/11/06

I. AUTHORITY

This integrated management plan was prepared by the Board of Directors of the Tri-Basin Natural Resources District (TBNRD) and the Nebraska Department of Natural Resources (NDNR) in accordance with Sections 46-715, 46-716, 46-717, and 46-720, R.S.Supp., 2004.

II. BACKGROUND

Tri-Basin Natural Resources District encompasses portions of the Republican, Platte and Little Blue River Basins (see map ???). The district also contains an area commonly referred to as the "Groundwater Mound", a large area spanning portions of all three basins that is characterized by groundwater levels that are higher than historic "pre-development" groundwater elevations.

A. The Republican Basin

The Republican River originates in eastern Colorado and traces a course through southern Nebraska on the way to its confluence with the Kansas River. The Republican River does not pass through Tri-Basin NRD, but approximately 40% of the district lies within the Republican watershed. Several tributaries of the Republican originate in or pass through the district. Base flows in some of these tributaries (Muddy Creek, Elk Creek, Turkey Creek and Spring Creek) have increased through time, likely due to a rise in the groundwater table. This rise resulted from delivery and irrigation with surface water from the Platte River by Central Nebraska Public Power and Irrigation District (CNPPID) in the Platte Basin in Gosper, Phelps and Kearney Counties. The increase in baseflows in these tributaries has been so significant that it has created annual credits averaging 10,000 acre-feet in Republican Basin Compact Accounting for the State of Nebraska.

define term

Needs more background

In 1943 the States of Colorado, Kansas and Nebraska entered into the Republican River Compact (hereinafter the Compact) with the approval of Congress. The Compact provides for the equitable apportionment of the "virgin water supply" of the Republican River Basin. Following several years of dispute

about Nebraska's consumptive use of water within the basin, Kansas filed an original action in the United States Supreme Court against the states of Nebraska and Colorado in 1998. After several rulings by the Court and its Special Master and several months of negotiation, all three states entered into a comprehensive Settlement Agreement. That Agreement was approved by the Court on May 19, 2003 and the Special Master's final report approving the Joint Groundwater Model developed by all three states for use in computing stream flow depletions resulting from groundwater use was submitted to the Court on September 17, 2003.

In July, 1996, the TBNRD and the other three Natural Resources Districts in the Republican River Basin, initiated a joint action planning process with the Department of Water Resources (DWR), a predecessor agency of NDNR, pursuant to then Section 46-656.28 of the Nebraska statutes. In accordance with that process, DWR first made a preliminary determination in 1996 that "there was reason to believe that the use of hydrologically connected ground water and surface water resources is contributing to or is in the reasonably foreseeable future likely to contribute to disputes over the Republican River Compact." When the studies required by Section 46-656.28 had been completed, NDNR issued its conclusions on May 20, 2003 in the form of a report entitled: "Republican River Basin, Report of Preliminary Findings." Those conclusions included the following determination:

"Pursuant to Section 46-656.28 and the preliminary findings in this report, the Department determined that present and future Compact disputes arising out of the use of hydrologically connected ground water and surface water resources in the Republican River Basin can be eliminated or reduced through the adoption of a joint action plan."

Following four hearings on that report, NDNR made final the preliminary conclusions in the report and the four basin Natural Resources Districts were so informed. The TBNRD and the other three Districts each then adopted orders to proceed with developing a joint action plan for integrated management of hydrologically connected surface water and ground water resources in the basin; preparation of a joint action plan for the TBNRD began soon thereafter. TBNRD and NDNR agreed on the objective for a joint action plan on July 13, 2004.

B. The Platte Basin

More than 100,000 acres of cropland within the Platte Basin portion of Tri-Basin Natural Resources District are irrigated with water diverted from the Platte River and distributed through the canals of the Central Nebraska Public Power and Irrigation District (CNPPID). Surface irrigation water and the canals that distribute it enhance recharge of groundwater supplies within the district. In addition to helping sustain groundwater supplies, this incidental recharge has increased streamflows in Platte and Republican tributaries. High groundwater levels have also saturated soil and sub-soil in parts of northern Phelps and

Kearney counties, requiring the NRD to construct drainage ditches (IPAs) in an attempt to stabilize groundwater levels below the crop root zone. The NRD has designated portions of the Platte Basin as a "High Groundwater Management Area" for purposes of groundwater quantity management.

Water disputes in the Platte River Basin date back to early Nebraska history. Tri-Basin NRD has been involved in Platte Basin water issues since it was established in 1972. Most recently, Tri-Basin NRD directors have participated in meetings and negotiations associated with development of the Platte River Cooperative Agreement and the proposed Platte River Program (Program). If implemented, the proposed program would manage certain land and water resources to provide defined benefits for four species in Nebraska that are listed as threatened or endangered by the federal government. The program is intended to provide ESA compliance for water users in the Platte River Basin upstream of Columbus, Nebraska.

This needs to be rewritten to be more factual

C. The Little Blue Basin

The headwaters of the Little Blue River Basin rise in south-central Kearney County. A major tributary of the Little Blue, Sand Creek, also originates near Minden in Kearney County. Sand Creek is influenced by the "groundwater mound", but the Little Blue River itself does not appear to have higher levels of streamflow than it did historically. This conclusion is based on local observations, as well as a review of data from the closest downstream gauge at DeWeese, Nebraska.

River

of wildlife

Water use in the Little Blue River Basin is subject to an interstate compact between Nebraska and Kansas, which was enacted in 1962.

III. GOALS AND OBJECTIVES

A. Integrated Management Plan Goals:

Tri-Basin NRD Vision Statement

The vision (overall goal) for Tri-Basin NRD is to **"work cooperatively with District residents to promote good stewardship of land and water resources."**

Tri-Basin NRD Mission Statement

Tri-Basin NRD's mission is to **"manage, conserve and protect the District's land and water resources."** This mission will be accomplished by protecting the quality and quantity of surface water and groundwater, reducing soil erosion and flooding, promoting agricultural best management practices, forestry and wildlife habitat preservation. These tasks can only be accomplished by working cooperatively with local residents and agencies of local, state and federal government.

Pursuant to Section 46-715, R.S. Supp., 2004, 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 residents of Tri-Basin Natural Resources District for both the near term and the long term. The following goals and objectives are adopted by the TBNRD and the NDNR to achieve that purpose.

actual other purposes enumerated in the statute?

The goals of the Tri-Basin NRD Integrated Management Plan are:

1. All water supplies within the Tri-Basin NRD, whether their origin be groundwater or surface water, will be utilized to preserve the present quality and quantity of this vital resource. This goal will be achieved through equitable adjustments in irrigated cropland acres and allocation of groundwater resources, if necessary. (Source: Tri-Basin NRD Groundwater Management Plan, 1995). *NOTE: The current benchmark for groundwater quality is that groundwater resources should contain less than 9 ppm nitrate-nitrogen. The benchmark for groundwater quantity is that groundwater table elevations should equal or exceed average springtime groundwater table elevations during the period 1981-85.*
2. Tri-Basin NRD and NDNR, in collaboration with CNPPID and other affected water users, will develop and implement plans to continue and enhance groundwater recharge from surface water sources in quantities that are adequate and at locations that are appropriate to enable NDNR and the NRD to achieve the other goals and objectives of this plan.
3. Tri-Basin NRD will assist the State of Nebraska, in cooperation with other Natural Resources Districts, in maintaining compliance with:
 - A. the Republican River Compact as adopted in 1943 and as implemented in accordance with the settlement approved by the United States Supreme Court on May 19, 2003,
 - B. the Platte River Cooperative Agreement and any applicable successor agreements or programs,
 - C. the Blue River Compact and
 - D. other lawful interstate compacts, decrees and agreements relevant to management of the integrated water resources of the district.

So is that up or down from present gw level?

Furthermore, with respect to interstate compacts, agreements and court decrees, Tri-Basin NRD and NDNR agree:

- E. That they will ensure that ground water and surface water users within the TBNRD assume their share of responsibility to keep Nebraska in compliance with the Republican River Compact, Blue River Compact and the Platte River Cooperative Agreement (and applicable successor interstate agreements for the Platte River system).
- F. That neither TBNRD nor NDNR will require the integrated management plan to be amended solely for the purpose of

changing the responsibility of water users within the TBNRD based on the failure of the other NRDs to implement or enforce an integrated management plan to meet their share of the responsibility to keep Nebraska in compliance with these interstate agreements, and

G. That TBNRD's share of that responsibility will be distributed in an equitable manner and, by minimizing to the extent possible, adverse economic, social and environmental consequences.

4. Tri-Basin NRD and NDNR will manage integrated water resources to protect the economic viability, social and environmental health, safety and welfare of Gosper, Phelps and Kearney counties and, to the greatest extent possible, accommodate foreseeable future economic development needs.

5. Tri-Basin NRD and NDNR will continue to support the development and maintenance of digital water management models, databases, stream gauges, observation wells and other tools and facilities needed to accurately measure and clearly depict the current state of groundwater and surface water resources as well as potential future water resource trends and conditions. These tools will be essential for decision makers as they consider whether and how to regulate consumption of integrated water resources.

Nothing in this plan will compel Tri-Basin NRD or NDNR to continue regulations or limitations on consumption or utilization of integrated water resources if future climatic conditions or changes in technology or land use increase integrated water supplies to such an extent that portions of the district designated by NDNR as fully appropriated or overappropriated no longer warrant such designations.

B. Integrated Management Plan Objectives:

1. Republican Basin Objectives

Tri-Basin NRD and NDNR agree to accomplish the following objectives for the Republican River Basin portion of the district in order to achieve the goals of this integrated management plan.

A. Republican Basin Joint Action Plan Objective

Tri-Basin NRD and the NE Department of Natural Resources agreed on July 13, 2004 that the objective of a joint action plan for the Republican River Basin portion of TBNRD is as follows: "*The key objective of the Plan is to maintain, at sufficient levels to offset depletions to the Republican River caused by ground water pumping within the Tri Basin NRD, the Republican River Compact credit that Nebraska receives because of discharges from the*

"ground water mound" to the surface water supplies in the Republican River Basin. To achieve this objective, the Tri Basin NRD will utilize the ground water management authorities available to it to maintain the water levels in its portion of that "ground water mound" at or above the average water levels for the years 1981 through 1985."

do it to be in compliance

The NDNR accepted that agreement on this objective fulfilled the requirements for creation of a joint action plan for the Republican River portion of the NRD, as described in Sec. 46-720 NE State Statutes.

SO?

B. Prohibit landowners, with limited exceptions, from initiating new or expanded uses of water that increase Nebraska's computed beneficial consumptive use of water within the Republican Basin portion of TBNRD;

from what date?

C. Ensure that surface water appropriations in the Republican Basin are administered in compliance with the Republican River Compact and state law.

?

D. After taking into account any reduction in beneficial consumptive use achieved through basinwide incentive programs, make such additional adjustments in ground water use as are necessary to maintain groundwater levels at or above 1981-85 average levels.

which basin?

E. TBNRD and the NDNR will investigate or explore methods to reduce the impact of vegetative growth, particularly invasive species infestations, on streamflows in the Republican River and its tributaries.

consumption of water

F. TBNRD, NDNR and CNPPID will develop and implement plans to continue groundwater recharge from surface water supplies to the Republican River basin in amounts that are comparable to recharge that occurred before and during 1997.

why should CNPPID be a part of this?

you mean corn?

2. Platte Basin Objectives

Tri-Basin NRD and NDNR agree to accomplish the following objectives for the Platte River Basin portion of the district in order to achieve the goals of this integrated management plan.

what are P Basin boundaries? gw basin FAB report outside SW basin boundaries

A. Objectives for the entire Platte Basin within Tri-Basin NRD

1). Prohibit landowners, with limited exceptions, from initiating new or expanded uses of water that increase beneficial consumptive use of water within the overappropriated and fully appropriated portions of the Platte River Basin within TBNRD;

2). Ensure that administration of surface water appropriations in the Basin is in full compliance with Nebraska law.

or does that mean lower calls?

what does that mean? does that mean aquifer?

- 3). The TBNRD and the NDNR will investigate methods to reduce the impact of vegetative growth, particularly invasive species infestations, on streamflows in the Platte River and its tributaries.
- 4). TBNRD and NDNR, in collaboration with CNPPID and other affected water users will develop and implement plans to continue groundwater recharge from surface water supplies in amounts sufficient to sustain existing groundwater uses.

★
are we saying we agree to transfer water? what GA says? look at transfer from to District

B. Objectives for the Overappropriated (O.A.) Basin

The NDNR declared the Platte Basin upstream of the Kearney Canal diversion as overappropriated pursuant to NE State Statute Sec. 46-713 (4) (a) on September 15, 2004. The need to reduce water use in this portion of the district to fully appropriated levels of water use (at least 1997 levels of water use) may lead the board to develop separate rules and regulations for that portion of the district.

The integrated management plan objectives for the overappropriated portion of the Platte Basin (the "O.A. Basin") are to: 1) maintain the groundwater aquifer at or above 1981-85 average springtime water table elevations and, 2) limit water consumption to 1997 levels or lower levels, if necessary, to reach fully appropriated status. This objective will be accomplished by carrying out the following tasks:

How? 1). TBNRD and NDNR, working in cooperation with CNPPID, will develop and implement plans to continue groundwater recharge from surface water supplies to the overappropriated basin in amounts that are comparable to recharge that occurred before and during 1997.

2). Make incentive programs available to TBNRD water users that will help them reduce water consumption.

3). Continue implementation and enforcement of current TBNRD integrated water management rules and NDNR regulations, which prohibit development of additional irrigated cropland or hayland, unless landowners convert an equal amount of existing irrigated land to a non-irrigated land use. If water levels drop below 1981-85 average springtime levels, NRD phase II groundwater quantity management rules will be implemented.

C. Objective for the Fully Appropriated Basin

NDNR ^{made a preliminary determination} designated the remaining portion of the Platte Basin within Tri-Basin NRD as "fully appropriated" pursuant to NE State Statute 46-713 (1) (a) in January, 2006. Tri-Basin NRD will expand the boundaries of the district's Integrated Management Area to include that portion of the basin so designated. The district will certify existing irrigated land uses and prohibit the development of additional irrigated cropland and hayland within the fully appropriated portion of the Platte Basin, unless landowners

Not true! What DNA regs? interesting site not certified yet

IMP if don't have plan worked out why are we doing

How?

inventory of irrigated fields?

What

what was this?

convert an equal amount of existing irrigated land to a non-irrigated land use.

The integrated management plan objective for the fully appropriated portion of the Platte Basin is to maintain the groundwater aquifer at or above 1981-85 average springtime water table elevations and to limit water consumption at or below 2005 levels. This objective will be accomplished by continued implementation and enforcement of current TBNRD integrated water management rules, which prohibit development of additional irrigated cropland or hayland. If water levels drop below 1981-85 levels, NRD phase II groundwater quantity management rules will be implemented.

Should have farmed irrigated in 2005

expansion of area

3. Little Blue Basin Objectives

Tri-Basin NRD and NDNR agree to accomplish the following objectives for the Little Blue River Basin portion of the district in order to achieve the goals of this integrated management plan.

can't agree not FAB

- A. Objectives for the entire Little Blue River Basin within Tri-Basin NRD
 1. Ensure that administration of surface water appropriations in the Basin is in accordance with the Blue River Compact and in full compliance with Nebraska law.
 2. Protect existing groundwater supplies through a combination of incentives to reduce irrigated water consumption, regulation of water use, limitations on irrigated cropland and intentional recharge of groundwater supplies.
 3. TBNRD and the NDNR will investigate or explore methods to reduce the impact of vegetative growth, particularly invasive species infestations, on streamflows of the Little Blue River and its tributaries.

B. The Groundwater Mound-influenced area

Rising groundwater levels in this portion of the Little Blue River basin indicate that the "Groundwater Mound" is expanding south and east into this area. Historic data is sparse, but there are indications that Sand Creek has higher baseflows now than it did in the 1970s.

The integrated management plan objective for the groundwater mound influenced portion of the Little Blue River Basin will be to maintain groundwater levels at or above 1981-85 average levels. This objective will be accomplished using a combination of voluntary incentives to landowners to reduce the number of irrigated cropland acres and continued implementation and enforcement of current TBNRD groundwater quantity management rules. If water levels drop below

1981-85 levels, NRD phase II groundwater quantity management rules will be implemented.

C. The Eastern Little Blue Basin (undifferentiated Pleistocene deposits)

The eastern portion of the Little Blue River basin in Kearney County is not affected by the groundwater mound. The groundwater aquifer generally lacks Ogallala Formation deposits, and in some areas has limited amounts of Pleistocene age water bearing gravels. The aquifer in this portion of the district has been drawn down significantly during drought periods, but readily recovers during periods of average rainfall.

The integrated management plan objective for the Eastern Little Blue River Basin will be to maintain groundwater levels at or above 1981-85 average springtime levels. This objective will be accomplished using a combination of voluntary incentives to landowners to reduce groundwater pumping and irrigated cropland acres and continued implementation and enforcement of state law and current TBNRD groundwater quantity management rules. If water levels drop below 1981-85 levels, NRD phase II groundwater quantity management rules will be implemented. This area would benefit from an intentional groundwater recharge project, possibly in the Sand Creek or Cottonwood Creek drainages. Tri-Basin NRD, CNPPID and NDNR will investigate options for enhancing groundwater recharge in the Little Blue River Basin.

no we won't

IV. MAP - see map 1.

can't be legal basis

The area subject to this integrated management plan is the entire geographic area within the boundaries of the Tri-Basin Natural Resources District.

V. GROUND WATER CONTROLS

The authority for the ground water component of this integrated management plan is Section 46-715 and Section 46-739, R.S.Supp., 2004. The ground water controls that will be adopted and implemented by the Tri-Basin Natural Resources District are those found in Sections 1 through 11 Rules and Regulations – Ground Water Management in the Tri-Basin Natural Resources District.

have to list what just refer to

VI. SURFACE WATER CONTROLS - Department of Natural Resources

THIS IS DNR'S PORTION OF THE PLAN. THE CONTENT OF THIS SECTION IS FROM MIDDLE REPUBLICAN NRD'S PLAN AND MAY NOT APPLY TO TRI-BASIN NRD.

Start over

The authority for the surface water component of this integrated management plan is Section 46-715 and Section 46-716 R.S.Supp., 2004. The surface water controls that will be continued and/or begun by the NDNR are as follows:

A. NDNR will do the following additional surface water administration as required by the Settlement Agreement:

- To provide for regulation of natural flow between Harlan County Lake and Superior-Courtland Diversion Dam, Nebraska will recognize a priority date of February 26, 1948 for Kansas Bostwick Irrigation District, the same priority date as the priority date held by the Nebraska Bostwick Irrigation District's Courtland Canal water right.

app to TB?

disturbances only in Report

When water is needed for diversion at Guide Rock and the projected or actual irrigation supply is less than 130,000 acre feet of storage available for use from Harlan County Lake as determined by the Bureau of Reclamation using the methodology described in Harlan County Lake Operation Consensus Plan attached as Appendix K to the Settlement Agreement, Nebraska will close junior, and require compliance with senior, natural flow diversions of surface water between Harlan County Lake and Guide Rock.

- Nebraska will protect storage water released from Harlan County Lake for delivery at Guide Rock from surface water diversions.
- Nebraska, in concert with Kansas and in collaboration with the United States, and in the manner described in Appendix L to the Settlement Agreement, will take actions to minimize the bypass flows at Superior-Courtland Diversion Dam.

B. Metering of all surface water diversions at the point of diversion from the stream will continue to be required. For surface water canals that are not part of a Bureau of Reclamation project, farm turnouts also will be required to be metered by the start of the 2005 irrigation season. All meters shall have a totalizer and shall meet Department standards for installation, accuracy and maintenance. All appropriators will be monitored closely to ensure that neither the rate of diversion nor the annual amount diverted exceeds that allowed by the applicable permit or by statute.

not true in Florida

CORRID canals

C. The Department's moratorium on the issuance of new surface water permits was made formal by order of the Director dated July 15, 2004 and will be continued. Exceptions may be granted to the extent permitted by Section 46-714(3) or to allow issuance of permits for existing reservoirs that currently do not now have such permits. Such reservoirs may be identified through the Settlement required inventory of over 15 acre-foot reservoirs or otherwise.

D. All proposed transfers of surface water rights shall be subject to the revised criteria for such transfers as found in Sections 46-290 to 46-294.04 or the criteria found in Sections 46-2,120 to 46-2,130.

E. The Department completed the adjudication process for the individual appropriators in the Republican River Basin in 2004. The results of that adjudication provide up-to-date records of the number and location of acres irrigated with surface water by such appropriators. Those records will be used by the Department to monitor use of surface water and to make sure that unauthorized irrigation is not occurring. The Department also will be proactive in initiating subsequent adjudications whenever information available to the Department indicates that there are water rights that are not being used and for which no known sufficient cause for such non-use exists.

F. At this time, due to the already limited availability of surface water supplies, the Department will not require that surface water appropriators apply or utilize additional conservation measures or that they be subject to other new restrictions on surface water use. However, the Department reserves the right to request, in the future, that this integrated management plan be modified to require any such additional measures. In the event such a request is made, the Department will "allow the affected surface water appropriators and surface water project sponsors a reasonable amount of time, not to exceed one hundred eighty days, unless extended by the Department, to identify the conservation measures to be applied or utilized, to develop a schedule for such application and utilization, and to comment on any other proposed restrictions." (46-716(2))

VII. INCENTIVE PROGRAMS

Tri-Basin NRD and NDNR intend to establish and implement financial or other incentive programs to reduce beneficial consumptive use of water within the TBNRD. As a condition for participation in an incentive program, water users or landowners may be required to enter into and perform such agreements or covenants concerning the use of land or water as are necessary to produce the benefits for which the incentive program is established.

Such incentive programs may include any program authorized by state law and/or Federal programs such as the Conservation Reserve Enhancement Program (CREP) and Environmental Quality Incentives Program (EQIP) operated by the U.S. Department of Agriculture.

VIII. INFORMATION CONSIDERED

Information used in the preparation and to be used in the implementation of this integrated management plan can be found in the simulation runs of the Republican River Compact Administration Ground Water Model and the COHYST model, the data tables of the Final Settlement Stipulation for the Republican River Compact, Chapters 2 and 3 of the 1996 Tri-Basin NRD Ground Water Management Plan and additional data on file with TBNRD and NDNR.

2006 FAB

Map 1. Management Area Boundaries

