

Ted Tietjen  
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RECEIVED  
NOV 08 2007  
DEPARTMENT OF  
NATURAL RESOURCES

November 3, 2007

Ann Bleed, Director  
NE Department of Natural Resources  
301 Centennial Mall  
Lincoln, NE 68509-4676

Subject: Written testimony relating to the Nov 1<sup>st</sup> meeting in Imperial, NE

Dear: Ann

It was nice to meet you in Imperial and the next time we have a phone conversation I will have a picture in my mind as to how you look. That in itself creates a friendly atmosphere.

Attached is a copy of the written testimony that I have forwarded to the Upper Republican Natural Resource District in Imperial, NE.

I know we need to find ways to cut water use in the Ogallala aquifer and hope we can achieve stability in the next five years. I know some would like to see it faster, but if history is any indication, five years is the best we can hope for without disrupting the economy and creating unintended consequences.

It took us 20 plus years to adopt residue conservation practices that reduced water and wind erosion. The other benefits were reduced evaporation, reduced water use and at the same time increase yields.

To get growers to adopt new technology and management strategies designed to reduce water use without sacrificing profitability will require some transition time.

I have gathered enough information from multiple sources to share with growers on how to reduce water use substantially without sacrificing profitability. With some of the new drought resistant cultivars we can stabilize the Ogallala aquifer, but it will take some time. My request is to give the three NRD's a window to achieve those goals.

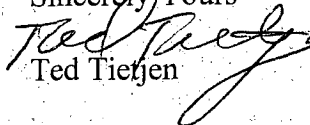
Attached are several copies of a conference that will be held in McCook on Tue Nov 27<sup>th</sup>, 07. We are extending an invitation to you and your staff to attend. As you can see from the cover letter we want people living in the basin to become involved and be part of the

solution. We will be targeting landowner, operators, wildlife and recreation interests in all three states.

We look forward to working with you and your staff in meeting the compact compliance issues.

Copy to:  
Jasper Fanning, Manager URNRD

Sincerely Yours



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Nov 1, 2007

Chairman Greg Pelster and Board members  
 Upper Republican Natural Resource District (URNRD)  
 135 W 5<sup>th</sup> St  
 Imperial, NE 69033

Subject: Integrated Management Plan (IMP)

As a landowner and irrigator I am making the following recommendation for the Board to for consideration:

The Upper, Middle and Lower NRD's are required to participate and contribute to solving the KS Republican River compact compliance issues, so it is logical to include all three in some of the recommendations.

The base-line was determined by averaging the 1998 to 2002 pumping volumes

NRD	1998-2002 Baseline in Acre Feet	2002 Certified Acres	2002 Average Water use in inches
Upper	532,763	448,000	9.891
Middle	266,426	309,478	9.680
Lower	295,000 (Est)	242,289	6.844
Surface	?	?	
<b>Total</b>	<b>1,009,426</b>	<b>1,083,530</b>	<b>8.945</b>

Projected Pumping allocations for 2008 with a 20% reduction from the base line

NRD	2008 Allocation in A Ft	2008 Certified Acres	2008 To meet Compliance	2007 CREP/EQIP Acres*
Upper	425,104	448,000	11.39"/A	(12,274)
Middle	247,580	312,043	9.52"/A	(18,552)
Lower	193,831	325,876	7.14"/A	(14,820)
Surface	?	?		
<b>Total</b>	<b>866,515</b>	<b>1,085,919</b>	<b>9.58"/A</b>	<b>(45,970)</b>

\* The CREP & EQIP acres are not included in the calculations as I don't know how they will be treated in the plan.

As I understand it there are some that prefer to cut irrigated acres and leave the allocations the same as they were in 2007. That certainly is an option, but do not have enough information at this time to comment on those considerations.

My current recommendation for the Upper Republican River NRD is to cut the allocations to 11.39 inches/ certified irrigated acres or round it off to 11¼" with the following conditions: Pooling and carry forward should be included in the 5yr agreement with DNR.

How CREP/EQIP acres are dealt with is open for further discussion as is the purchase of surface water rights for 2008 and beyond. The above recommendations are based on the data that have been presented. If the data have changed, the recommendation will require review.

Why the allocation in inches is preferable to other proposals?

1. Meters are in place and available for recorded yearly.
2. Encourages more efficient water management by the grower.
3. Pooling and carry forward, gives the user more flexibility.
4. Gives greater flexibility in cropping systems.
5. Fits the farm programs better than other considerations.
6. Would encourage the elimination of end guns on center pivots.
7. Would encourage the adoption of more efficient irrigation equipment

Since the original compact was agreed to in 1943 significant management and conservation practices have affected the Republican River basin. Examples:

Tillage practices

1. Conventional tillage. Water intake rate on a silty clay loam soil was .70"/hr. vs strip till residue management. Strip till has increased the water intake rate from 4.7-5.3"/hr for the first hour of rainfall.
3. Increased the organic matter in soils by approximately 1%, which increases water holding capacity.
4. Residue management has reduced both water and wind erosion.
5. Better stewardship of our farms gives the farm operators and landowners the opportunity to pass them to the next generation in better condition than they originally received them.
6. Flat terraces keep the water where it falls and increases infiltration.
7. New drought resistant cultivars will positively affect water use efficiencies in the future.

**Additional considerations for the three NRD's:**

1. Maintaining adequate amounts of water in the Harlan County Reservoir is critical to meeting the compact requires. Therefore, we need to do everything possible to make sure an adequate amount of water is available.
2. Make sure the Bootlick Irrigation Canal is properly maintained and used to its fullest potential.
  - A. Consider winterizing the canal so that water transfers to Lovewell Reservoir can take place during the off season when evaporation is minimal.

- B. Consider increasing the storage capacity of Lovewell Reservoir another 35,000 acre feet.
3. Remove invasive plants from the River channel and floodplain. Replace the Undesirable vegetation in the flood plain with more desirable grasses, forbs and shrubs that enhance grazing, increases water infiltration and improves wildlife habitat.
  4. Consider installing monitoring equipment so that the NRD's, DNR, Corp of Engineers and the Bureau of Reclamation can do real time measuring. The objective is to better plan water releases and to make adjustments in management strategies that would help in meeting compact compliance.
  5. The current computer model is so complicated that no one understands how it works. There also appears to be disagreement on what data are to be used in determining compliance. The computer model should also have the capacity to predicting probable results.
  6. It would be nice to have meter readings earlier so that better management decisions can be made by both the operator and the NRD's.

Recommendations for the next five years.

1. Develop a long range strategy on how we want the Republican River and its tributaries to look like 30 years and beyond. The people living in the basin should be the driving force in determining this vision
2. Develop strategies to stabilize the Ogallala Aquifer without impairing the agricultural economy.
3. Improve the working relationships with CO, KS so that together we solve the issues before us. "There are no innocent parties".
4. Continue conservation practices that support the theme "Keep the Water Where It Falls".

If some of the comments are not clear, feel free to call me for further clarification.

Copies to:  
Jasper Fanning, manager URNRD  
Ann Bleed, Director, NE-DNR

Sincerely Yours

Ted Tietjen

# Republican River Riparian Partnership

Sponsored by the following RC&D's

Website: [www.swrcd.org](http://www.swrcd.org)

## Colorado

East Central CO RC&D  
Northeast CO RC&D

## Kansas

Kansas Cross Roads RC&D  
Salomon Valley RC&D  
Western Prairie RC&D

## Nebraska

Southwest NE RC&D  
Trailblazer RC&D

## The Republican River YR2037 & Beyond

**At the 4H Building, Red Willow Fair Grounds, McCook, NE**

9:30 AM CT

**Tue, Nov 27, 2007**

To: The Upper, Middle and Lower NRD boards.

From: Ted Tietjen, President

Subject: YR 2037 and Beyond

Attached are copies of the agenda for the first Republican River conference on what we want the Republican River to look like in 30 years and beyond.

You will hear from farmers living in each state to give an overview of what they see as well as agencies involved with the river basin.

Gary Wells, from the National Agroforestry Center, one of the contributing authors to the "Stream Corridor Restoration" manual, will give an overview of how a stream corridor functions. One can go to an Internet search engine and type in Stream Corridor Restoration and download sections that are of interest. Those that are not familiar with how a stream corridor functions will find this presentation very interesting. The information should help guide decision makers in making better policy decisions.

Examples:

We are currently clearing out the main river channel in the Republican River and several concerns have not been addressed. Sedimentation and what kind of vegetation will replace the invasive species we are taking out. Mother Nature will replace the vegetation with something, and sediment may fill our dams, so we need to develop a strategy to reduce the unintended consequences.

(Over)

It is extremely important to have all three states to work together if we are to solve the Republican River issues as Mother Nature does not recognize state lines, Also there are no innocent parties. We hope to get all interested parties to participate and contribute to the process.

Our goal is to start the process of developing team leaders for category 8 watersheds. It is important that we break the river basin into smaller watersheds in order to get local involvement. Below are the USGS 17 category 8 watersheds.

To get more information on Internet go to: USGS—Water Resources of the United States- Hydrologic Unit Maps. <http://water.usgs.gov/GIS/huc.html>  
 Hydrologic unit 10 is the Missouri River Basin  
 Hydrologic unit 1025 is the Republican R Basin 24,700 Sq Miles. 15,808,000 A.  
 Cataloging units 10250000 (8 digit watersheds)

Catalog units	Watershed	Square Miles	Acres	Leader
10250001	Arikaree.....	1710.....	1,094,400..	_____
10250002	North Fork Republican.....	3290.....	2,105,600..	_____
10250003	South Fork Republican.....	2720.....	1,740,800..	_____
10250004	Upper Republican.....	2160.....	1,382,400..	_____
10250005	Frenchman.....	1350.....	864,000..	_____
10250006	Stinking Water.....	1470.....	940,800..	_____
10250007	Red Willow.....	783.....	501,120..	_____
10250008	Medicine.....	916.....	586,240..	_____
10250009	Harlan County Reservoir...1350.....	1350.....	864,000..	_____
10250010	Upper Sappa.....	1020.....	652,800..	_____
10250011	Lower Sappa.....	644.....	412,160..	_____
10250012	South Fork Beaver.....	771.....	493,440..	_____
10250013	Little Beaver.....	604.....	386,560..	_____
10250014	Beaver.....	731.....	467,840..	_____
10250015	Prairie Dog.....	1060.....	678,400..	_____
10250016	Middle Republican.....	2130.....	1,363,200..	_____
10250017	Lower Republican.....	1960.....	1,254,400..	_____

640 acres = 1 Sq Mile

Please pass this out to the board members and inform other interested people about this meeting. For more information go to our website: [www.swrcd.org](http://www.swrcd.org) or call:

The RRRP Exec Board

Jennifer TenBensel, Administrator, 888-585-1085

Ted Tietjen, President. 308-352-4336

Bob Martin, Vice President 785-332-5563

Nellie Zion, Sec/Treas 970-597-0370 or any of the above RC&D offices.

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9:40	What will the River basin look like 30 years & beyond Panel Bob Martin, KS    Alan Welp CO    Steve Godeken, NE	
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10:20	Bureau of Reclamation vision 30 years& beyond	Aaron Thompson
10:40	Coffee Break	
11:00	NRCS vision 30 years & beyond	Dave Griffith
11:20	Forestry's vision 30 yrs & beyond	Greg Sundstrom
11:40	Drought projections 30 years & beyond	Brian Fuchs
12:00	Lunch	
12:30	Invasive Species PowerPoint presentation	Merle Illian
1:00	Fish & Wildlife vision 30 years & beyond	Scott Chartier
1:20	How a stream corridor functions	Gary Wells
2:35	Coffee Break	

(Over)



2:55	Vegetation changes in 30 years and beyond	Jim Richardson
3:15	Developing Watershed leadership teams	Darla Juhl
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3:50	Summary (Recap)	Jen TenBensel
4:00	Board direction Including watershed leadership development	Attendees
4:10	Where will the next meeting be?	Attendees
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For additional information call: Ted Tietjen, 308-352-4336 or 308-289-5740 cell

# Republican River Riparian Partnership

## The Republican River YR2037 & Beyond

4H Building, Red Willow Fair Grounds, McCook, NE  
9:30 AM CT  
Tue, Nov 27, 2007

Registration Information  
800-585-1085  
Due by Nov 23, 2007

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone # \_\_\_\_\_

Cell # \_\_\_\_\_

E-mail \_\_\_\_\_

Representing \_\_\_\_\_

No Registration fee if registered before Nov 23<sup>rd</sup>. After Nov 23 \$10.00

Proceeding ~~or~~ will be available.

Send registration to:  
**SWN RC&D**  
**611 Paxton**  
**Box 86**  
**Cambridge, NE 69140**

## About the Speakers

### Producer Panel

*Bob Martin*, Occupation: Grower,  
Rt 2 Box 104 Herndon, KS 67739 785-322-5563

*Steve Godeken*, Occupation: Grower  
RT 1 Naponee, NE 68971, 308-269-2586, [sgodeken@gtmc.net](mailto:sgodeken@gtmc.net)

*Alan Welp* Occupation: Grower  
Wray, CO 970-630-1843, [awelp@plains.net](mailto:awelp@plains.net)

### Current status of Harlan County Reservoir

*Jim Bowen*, Superintendent Harlan County Reservoir,  
Corps of Engineers, 70788 Corps Rd Republican City, NE 68701  
308-799-2105 [jim.bowen@nwk02.usace.army.mil](mailto:jim.bowen@nwk02.usace.army.mil)

### Bureau of Reclamation Vision 30 years and Beyond

*Aaron Thompson*, Area Manager, Bureau of Reclamation, Kansas-Nebraska Area.  
203 West 2<sup>nd</sup> St, Box 1607, Grand Island, NE 68802. 308-389-4622  
[athompson@gp.usbr.gov](mailto:athompson@gp.usbr.gov)

### Natural Resource & Conservation Service vision 30 years and beyond

*David Griffith*, Rapid Watershed Response Assessment Coordinator for Nebraska.  
100 Centennial Mall N, Fed Bldg, Room 152, Lincoln, NE 68508-3866  
402-437-4114 [david.griffith@me.usda.gov](mailto:david.griffith@me.usda.gov)

### Forestry's Vision 30 years and Beyond

*Greg Sundstrom* CO Forester,  
Forest Service CO State U, 5060 Campus Delivery, Ft Collins CO 80523  
970-491-6303 [gregory.sundstrom@colostate.edu](mailto:gregory.sundstrom@colostate.edu)

### Drought Projections 30 years and beyond

*Brian Fuchs* Climatologist  
Drought Mitigation Center, 824 Harden Hall, Lincoln, NE 68583-0988  
402-472-6775 [bfuchs2@unl.edu](mailto:bfuchs2@unl.edu)

### Invasive Species Power Point Presentation

*Merle Illian* Coordinator Trailblazer RC&D  
437 North Elm St Red Cloud, NE 68970,  
402-746-3560 [merle.illian@ne.usda.gov](mailto:merle.illian@ne.usda.gov)

### Fish and Wildlife 30 years and beyond

*Scott Chartier* Fish expert and life time resident of Yuma County CO  
35679 County Rd, Wray CO 90758,  
970-332-5382. [chartiersarts4u@yahoo.com](mailto:chartiersarts4u@yahoo.com)

(Over)

### **How a Stream Corridor functions**

*Gary Wells* Landscape Architecture  
USDA National Agroforestry Center, East Campus, UNL,  
Lincoln, NE 68583-0822, 402-437-5178-ext 41, [gary.wells@ftw.usda.gov](mailto:gary.wells@ftw.usda.gov)

### **Vegetation Changes in the next 30 years**

*Jim Richardson* Soil Scientist, Range Management  
NRCS National Soil Survey, 100 Centennial Mall,  
Lincoln, NE 68508-3866 402-437-5321, [jim.richardson@lin.usda.gov](mailto:jim.richardson@lin.usda.gov)

### **Developing Watershed Leadership Teams**

*Darla Juhl* Coordinator, Solomon Valley RC&D  
320 S 6<sup>th</sup> St Stockton, KS 67669-2218,  
785-425-6647, [darla.juhl@ks.usda.gov](mailto:darla.juhl@ks.usda.gov)

### **Watershed Modeling**

*Gary Wells* Landscape Architecture  
USDA National Agroforestry Center, East Campus, UNL,  
Lincoln, NE 68583-0822, 402-437-5178-ext 41, [gary.wells@ftw.usda.gov](mailto:gary.wells@ftw.usda.gov)

### **Summary of the program**

*Jennifer TenBensel*, Executive Administrator, SWN RC&D  
611 Paxton St, Cambridge, NE 69022, 800-858-1085  
[jtbensel@swnebr.net](mailto:jtbensel@swnebr.net)

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