

# North Plains Water News



A Publication of the NORTH PLAINS GROUNDWATER CONSERVATION DISTRICT

VOLUME 56, NO. 1

“Maintaining our way of life through conservation, protection, and preservation of our groundwater resources.”

Fall 2010

## 200 Bushels of Corn on 12 Inches of Irrigation: Is it Possible, Profitable?



The Irrigation has stopped at or below 12 inches on the three field demonstration projects initiated this year by North Plains Groundwater Conservation District. Now, only the harvest will determine if the fields will reach their goal of producing 200 bushels of corn per acre on only 12 inches of irrigation.

Above average moisture early in the season certainly helped the cause, but board member and demonstration cooperator, Danny Krienke of Perryton, said hot, dry conditions later in the season off-set some of the benefit of the early moisture.

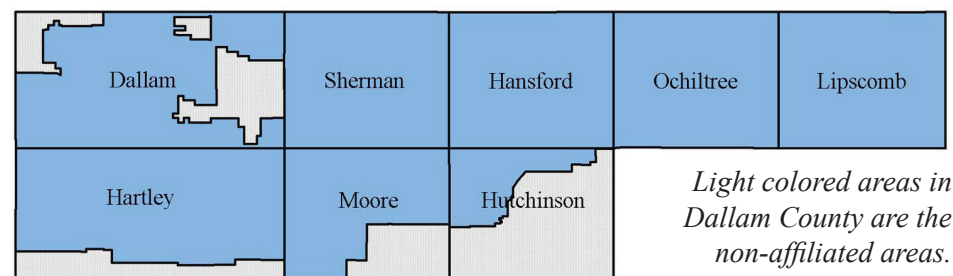
The board has been planning field-scale demonstrations to show the feasibility and profitability of producing 200 bushels of corn on 12 inches of irrigation since the beginning of 2010. If the project is successful it would result in an average reduction of about 6 inches of irrigation per acre, per year. The District is planning to expand the demonstration in 2011 and is working to secure funding to protect producers who cooperate in future demonstrations from possible revenue losses.

However, Krienke, and fellow board members Phil Haaland and Harold Grall decided to commit their own land to the project this

year without any guarantee of reimbursement for reduced yields. “We believe in the project. This will give us an additional year of data, even if it is on a somewhat smaller scale than the full-blown project. I think we will learn some things this year that will benefit the demonstrations next year,” said Krienke.

For the latest information on the District’s 200-12 Reduced Irrigation on Corn Project and the companion research at the North Plains Research Field log on to [www.npwd.org/200-12.htm](http://www.npwd.org/200-12.htm).

## Elections Set for Annexing Dallam County Areas into North Plains Groundwater Conservation District



*Light colored areas in Dallam County are the non-affiliated areas.*

Residents in parts of Dallam County will be voting during the November 2, 2010 general election to decide if they will be included in the North Plains Groundwater Conservation District. Prior to the election, the Texas A&M Extension Service will present informational meetings about what it means to be a part of a water conservation district. Those meetings are set for 6 pm, October 4<sup>th</sup> at the Texline Community Center and 6 pm, October 5<sup>th</sup> at the Rita Blanca Coliseum in Dalhart.

The three unaffiliated areas of Dallam County cover roughly 325 square miles and are either bordered on all sides, or adjacent to the District. The remainder of Dallam County is already a part of the District. Following

a hearing before an administrative law judge in Dalhart in August of 2009, the Texas Commission on Environmental Quality recommended those areas join the District and asked the board if they would accept the areas into the District.

The District agreed to accept those areas and began the process of coordinating an election to determine the will of the people in those areas. District General Manager, Steve Walthour, said the District welcomes these areas as part of the District, “We just feel that it is ultimately better for all parties concerned for these areas to be a part of a water conservation district,” said Walthour.

For more on the Dallam County District vote log on to [www.npwd.org/Extras](http://www.npwd.org/Extras).

## Message from the President

Dear Stakeholder,

It is my honor to serve you as the new president of North Plains Groundwater Conservation District Board of Directors. As a Director for the past six years, I have had the privilege of working closely with all of its members and serving under the leadership of three board presidents. I can assure you these are honorable, intelligent people who are deeply concerned about their communities and about stewarding the region’s groundwater resources, now and in the future. I can safely say your

groundwater is in good hands.

As we complete the first decade of the 21st Century, we are witnessing amazing technological advances that are changing our lives, mostly for the better. The management of groundwater north of the Canadian River has been, and will continue to be, affected by these changes. In the world of agriculture, new drought-tolerant genetics and high-tech tools are allowing growers to be as efficient with water as they have ever been. Likewise,

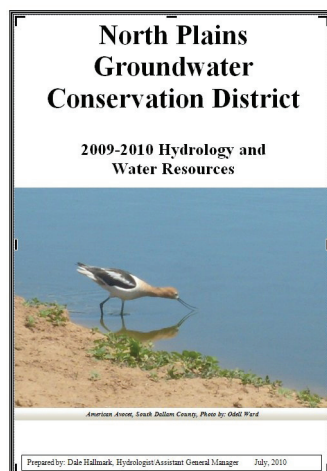
*(continued on page 3)*



*Bob Zimmer*  
President, Board of Directors



## Hydrologic Atlas of North Plains Groundwater Conservation District Available to the Public



North Plains Groundwater Conservation District has completed the annual Hydrologic Atlas of the District. The atlas uses current and historical data to map groundwater information throughout the District on a county-by-county basis.

The atlas is titled “2009-2010 Hydrology and Groundwater Resources” and contains information that landowners often request about the Ogallala aquifer and the water resources of areas within the District.

The document contains maps depicting water-level monitor well locations, estimated depth to water, estimated aquifer thickness and estimated average decline by county.

In addition to the maps section, the atlas also contains sections outlining the geographical extent of the District and general information on the geology and hydrology of the District. It features information on the current volume of water in storage in the aquifer, estimated annual water usage, recharge, and other inflows and outflows of the aquifer, as well as water quality.

Each year District residents request this type of information for groundwater investigations of different areas of the District. The atlas is a resource that allows them to easily compare general geologic and hydrologic characteristics of properties.

Copies of the atlas can be obtained free of charge at the North Plains Groundwater Conservation District office at 603 East 1<sup>st</sup> Street in Dumas, or it may be downloaded from the District website at [www.npwd.org](http://www.npwd.org) by clicking on the link for “Maps”.

## TEXAS WATER DEVELOPMENT BOARD NEEDS VOLUNTEERS FOR PLAYA MONITORING NETWORK



The Texas Water Development Board (TWDB) is looking for volunteers to “adopt” and monitor playas in the Southern High Plains of Texas. “The Adopt-a-Playa project is a three-year, region-wide, cooperative effort to enlist local observers that will help gather information on when, where, and how much water is collected in playa lakes,” says Andrew Weinberg, a Geoscientist at the TWDB.

Landowners who have one or more playas on their property are encouraged to contact the Texas Water Development Board or their local groundwater conservation district to learn more about the Adopt-a-Playa program. TWDB is taking applications throughout the summer and will begin installing equipment in the fall.

For more information about how you can be part of the TWDB playa monitoring network, call or e-mail one of the contacts below:

Andrew Weinberg, Texas Water Development Board, 512- 463-3210

Steve Walthour, North Plains Groundwater Conservation District, 806-935-6401

Jim Conkwright, High Plains Underground Water Conservation District, 806-762-0181

C.E. Williams, Panhandle Underground Water Conservation District, 806-883-2501

For more information on the Playa Monitoring Network, log on to [www.npwd.org/Extras](http://www.npwd.org/Extras).

## Help Us Conserve Time, Treasure and Trees

In an effort to be more efficient and effective in our communications, the District will be using paper less and technology more. This has already begun with the decision to streamline our regular mail list and utilize more electronic communication like e-mail, e-newsletters, Facebook, and Twitter to keep the information flowing and current. We may even employ the occasional mass text message for really important news, like the reminder that your production reports are due! However, we want you to be assured that we will protect your peace and your private information. We would never share any of your contact information with any other group or individual unless disclosure is required by law. So, if you want to make sure you stay informed about the important activities of your local water conservation district please send your email address and cell phone number with the ability to receive texts to [welchk@npwd.org](mailto:welchk@npwd.org). We will strive to make our communications with you extremely valuable and useful. If at some point you decide you no longer want to receive communications from us, all you need to do is send us an email to unsubscribe from any or all contact lists. This move to more electronic communication will allow us to get you the information you need in a timelier manner, making more efficient use of human and financial resources and without the sacrifice of as many trees in the process. We hope you will join us in the effort!

Thanks in advance,

Steve Walthour  
General Manager, North Plains  
Groundwater Conservation District

## Desired Future Conditions Process Completed

Groundwater Management Area (GMA) 1, which includes North Plains Groundwater Conservation District and the rest of the Texas Panhandle, has completed the process of determining desired future conditions (DFC's) for the aquifers within its boundaries. There are 16 GMA's in Texas that are charged with regional water management planning. The deadline for submission of DFC's by the state's GMA's was September 1, 2010. GMA 1 adopted DFC's for the Ogallala in July of 2009 and those DFC's withstood the test of a challenge filed by petitioners, Mesa Water Inc. and landowner, George Arrington, when the Texas Water Development Board (TWDB) voted 5-1 to affirm that the Ogallala aquifer DFC's set by GMA 1 are reasonable. Following the decision, Mesa Water, Inc. and George Arrington filed suit against the TWDB. DFC's for the Dockum and Blaine aquifers were adopted in June 2010 and have faced no challenges, to date.

District General Manager, Steve Walthour, said this marks the completion of this portion of the planning process, but is just the beginning in many ways, “Now the Districts in GMA 1 take a look at how their current procedures align with the goals that have been set. At North Plains we will have to determine if our current processes will allow us to meet these desired future conditions, while furthering our mission of maintaining our way of life through the conservation, protection and preservation of our groundwater resources.”

For more information about the Ogallala DFC process log on to [www.npwd.org/Extras](http://www.npwd.org/Extras).

## District Election Results

Four District board of director positions were up for election in the May 8, 2010 elections. No opponent filed to run in these county elections. Running unopposed were Phil Haaland representing Hartley County, Wesley Spurlock representing Sherman County, Harold Grall representing Moore County, and Brian Bezner representing Dallam County.

The next election for the District's board of directors will be held in 2012, when the director positions for Ochiltree, Hansford and Hutchinson, and Lipscomb Counties will be open for election.

## 2009 Water Levels Completed

One important part of managing the area's groundwater is monitoring the rate of decline in the water level in the Ogallala aquifer. The District tracks declines in groundwater by maintaining a network of over 430 water-level monitor wells. These monitor wells are measured annually beginning in January after the majority of the pumping is completed and finishing-up by March. The

information gathered is analyzed and used to create maps that show average water level changes across the District. This data helps the District make reasonable, long-term management decisions based on accurate and current measurements. The District began drilling its own dedicated monitor wells in 2007 and also began installing water level monitoring equipment that records measurements every 12 hours.

So far, the District has drilled 30 dedicated monitor wells and installed monitoring equipment in 14 of those. These continuous measurements create a valuable record of the ongoing changes in water levels. The data from the 2009 season has been gathered and tabulated and the results are presented in the following table and illustrations. For information on measurements in specific areas please contact the District at 806-935-6401.

give us a more accurate picture of water use, while helping us be better stewards of the resource.

Beyond just creating and enforcing rules that promote conservation, we feel a responsibility to educate all users about the latest ways to conserve. For instance, to prepare irrigating farmers for profitable sustainability under limited water conditions, we have initiated multi-year, field-scale demonstrations to attempt to produce 200 bushels of corn per acre on only 12 inches of irrigation. Cooperating growers will share information and apply all applicable water saving strategies to achieve the goal. That information will then be made freely available to all growers in the District and beyond.

We are working to take the conservation message to water users, young and old, across the District through our demonstration projects, through cooperation with area schools and through publications just like this one. The immediate need for conservation is a serious matter. Are we about to run out of water? No. But, are changes necessary? Yes, we will all have to make changes. We are committed to making sure everyone understands that every drop does count.

We, like most of you, are in this for the long-haul. We have to responsibly manage the groundwater to protect the future quality of life in this region for our children and their children. If we use all the water today, there won't be much left here in 50 years, including people. At the same time, we cannot shut down beneficial, productive water use today and simply speed up the death of the economy and the way of life we love.

So this is not an easy task we have, and if I thought I had to do it on my own, I'd be terrified. But I don't have to do it alone. I have my fellow members of the board of directors and a knowledgeable staff to drive this process. And more importantly, we have you on our side--the "long-haulers" who are willing to ensure a great future for our area by looking at new ways of doing things.

I know I speak for the board and District staff when I ask you to call us anytime with any questions or concerns. We are truly all in this together.

Respectfully,



Bob Zimmer  
President  
North Plains Groundwater  
Conservation District

## Message from the President

(continued from page 1)

municipal and industrial users have embraced new technological advances to improve their water efficiency. One example of the District's adoption of technology is the use of mobile information technology and satellite imagery in its operations to improve its efficiency and effectiveness in collecting data, monitoring aquifer conditions, reporting and compliance. The District will continue to evaluate and implement whatever tools might help achieve the Board's mission:

*"Maintaining our way of life through conservation, protection, and preservation of our groundwater resources".*

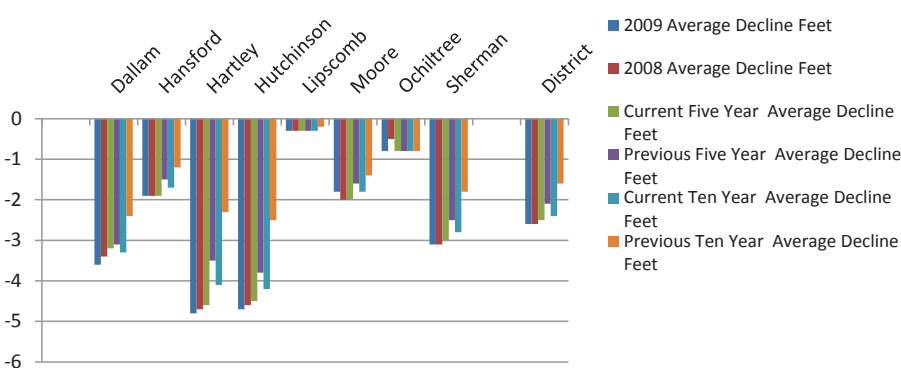
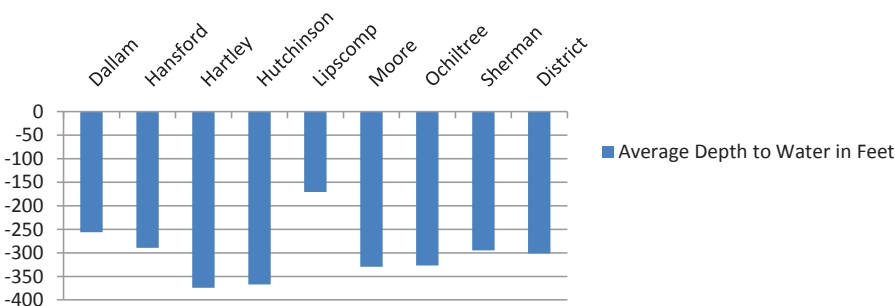
We believe groundwater is best managed at the local level, and I believe we can take pride in our position as a leader in the state and nation in our effort to responsibly manage and conserve this groundwater resource. We have always supported and will continue to support all users including: agricultural, industrial, municipal and exporter, alike.

We recognize that we are elected as public servants. We also recognize that the job you have asked us to do is so important that we cannot fall short. The challenge, that we readily accept, is to carry-out that job in the least intrusive manner possible. To address this challenge we will be reviewing our management plan and rules to see how we can streamline our processes to make them as user friendly as possible, while making sure we do the right things, the right way.

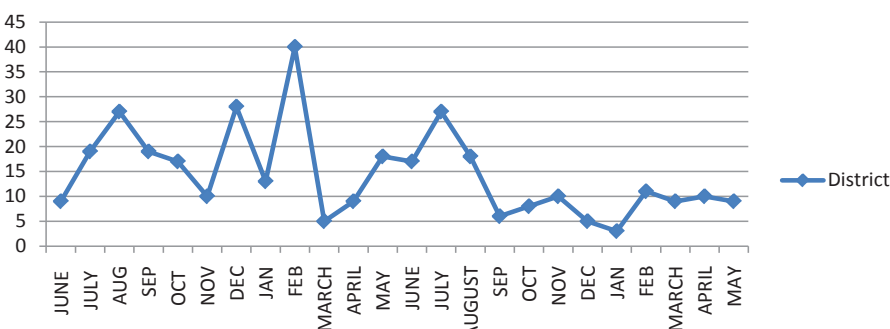
One of the most important "right things" we are doing is requiring water meters and annual production reporting. These measures just make sense, because we need to know how much groundwater is being used each year if we are to effectively manage it. Our production numbers show that we are actually using less water than the statistical and hydrologic models have historically indicated. So, these actions provide us with hard data to

Average Depth to Water and Average Declines							
County	Average Depth to Water Feet	2009 Average Decline Feet	2008 Average Decline Feet	Current Five Year Average Decline Feet	Previous Five Year Average Decline Feet	Current Ten Year Average Decline Feet	Previous Ten Year Average Decline Feet
Dallam	-256	-3.6	-3.4	-3.2	-3.1	-3.3	-2.4
Hansford	-289	-1.9	-1.9	-1.9	-1.5	-1.7	-1.2
Hartley	-374	-4.8	-4.7	-4.6	-3.5	-4.1	-2.3
Hutchinson	-367	-4.7	-4.6	-4.5	-3.8	-4.2	-2.5
Lipscomb	-171	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2
Moore	-329	-1.8	-2	-2	-1.6	-1.8	-1.4
Ochiltree	-327	-0.8	-0.5	-0.8	-0.8	-0.8	-0.8
Sherman	-295	-3.1	-3.1	-3	-2.5	-2.8	-1.8
District	-301	-2.6	-2.6	-2.5	-2.1	-2.4	-1.6

### 2009 Average Depth to Water in Feet



### Registered Wells From June '08-May'10



This graph includes both non-exempt and exempt wells. Exempt wells are wells that produce less than 25,000 gallons/day or are used in oil and gas production.

June 08-May 09 214 Registered Wells • June 09-May 10 133 Registered Wells  
38-percent decrease in wells drilled and registered



NORTH PLAINS GROUNDWATER  
CONSERVATION DISTRICT  
BOX 795  
DUMAS, TEXAS 79029

PRESORTED  
STANDARD  
U.S. POSTAGE PAID  
LUBBOCK, TX  
PERMIT NO. 324  
RETURN SERVICE REQUESTED

# 2009 Water Use by County in Acre Feet

COUNTY	2009	2008	2007	2006	Acre- feet/acre	Total Acres 2009
DALLAM	315,200	306,000	269,600	264,900	1.10	287,400
HANSFORD	152,500	142,700	106,400	110,100	0.75	202,000
HARTLEY	382,200	364,900	312,700	286,400	1.21	315,400
HUTCHINSON	53,400	52,400	34,600	36,400	0.82	65,500
LIPSCOMB	29,700	30,800	32,400	28,900	0.52	57,200
MOORE	198,700	190,500	147,800	149,100	0.96	207,700
OCHILTREE	66,700	75,200	53,700	66,800	0.58	115,500
SHERMAN	282,600	274,000	219,500	207,300	1.00	291,800
Total	1,481,000	1,436,500	1,176,700	1,149,900	0.96	1,542,500
Western Counties	1,178,700	1,135,400	949,600	907,700	1.07	1,102,300
Eastern Counties	302,300	301,100	227,100	242,200	0.69	440,200

1 acre foot = 325,851 gal.

# Production Reports

The District staff thanks all well owners who made sure your 2009 production reports were filed on time. This year 98 percent of all owners filed their production reports by the March 1, 2010 deadline. Filing by the March 1st deadline greatly assists the District in calculating total groundwater production for our area. The 2010 annual production reports are due March 1, 2011. For the few producers who failed to get their report in on time this year, the District board established a late filing fee and a requirement that those owners file their 2010 reports by January 15, 2011. The late fee is \$50 per day for each day the report is late. However, District staff would prefer to collect timely production reports instead of late fees.

Producers are encouraged to contact the District at the end of

the 2010 watering season to request production report forms if you have not yet received them. Early filing of reports enables District staff and the water right owner to analyze production numbers and plan for the most efficient management of the water in the future. Additionally, you are encouraged to contact or come by the District office with any questions or problems you are having in calculating your production number. District staff will assist with any and all problems you may encounter. The District greatly appreciates the cooperation of water rights owners in managing groundwater resources for today and the future of our area.

For more tips about filing your production reports and information about late filing fee schedules log on to [www.npwd.org](http://www.npwd.org).

# Water Festivals are a Splashing Success

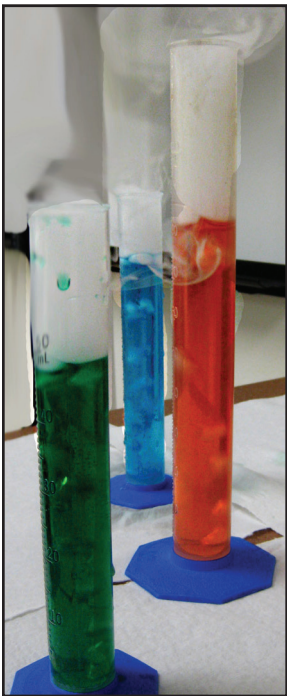
More than 600 4<sup>th</sup> Graders from all across the North Plains Groundwater Conservation District participated in the two Water Festivals hosted by the District this year. The events, held in Perryton and Dumas, gave each child the chance to learn more about their water resources and other natural resources at a fun-filled day of hands-on learning. “By presenting the information in a fun day, away from class, we hope to create a memorable, positive experience around the concepts of conservation and stewardship,” said Kirk Welch, Public Information and Conservation Education Manager for the District. The water festivals are extremely labor-intensive and would be impossible without the help of our partners and community volunteers.

## Water Festival Partners and Volunteers

Frank Phillips College Allen Campus  
Texas AgriLife Moore County Extension  
Texas AgriLife Ochiltree County Extension  
Dumas High School Agriculture Science Department  
Natural Resources Conservation Service-Dumas  
Panhandle Groundwater Conservation District  
Moore County 4-H  
Sherman County 4-H  
Valero McKee Refinery  
Texas Prairie Rivers Region  
Texas Parks and Wildlife Fisheries  
Texas AgriLife Extension Service

Meras Engineering  
Basil and Marilu Duncan  
Vicki Hampton  
Betty Spencer

Many Thanks!



4th graders learn about sources of pollution while playing the “No-Know Game.”  
Photo by Crystal Hogue, Sandy Land UWCD