

# North Plains Water News



A Publication of the NORTH PLAINS GROUNDWATER CONSERVATION DISTRICT

VOLUME 59, NO. 2

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

Summer 2013

## North Plains GCD Board Approves New Management Plan

After almost a year of study, review, and revision the North Plains Groundwater Conservation District has a new updated Management Plan. The board of directors unanimously approved the plan during their May board meeting and now await the final review and approval of the Texas Water Development Board.

The district is required to revisit the management plan at least every five years to make sure it continues to effectively accomplish the goals and objectives of the district’s enabling legislation and Chapter 36 of the Texas Water Code. Groundwater conservation districts in Texas have been creating comprehensive management plans since it was required in Senate Bill 1212 in 1989.

The main focus of this review period has been the incorporation of the district’s desired future conditions into the plan. A desired future condition, or DFC, is the measureable condition that the district stakeholders decide they want the aquifer to be left in at a specified time in the future. In the North Plains GCD, stakeholders settled on 40-percent of the aquifer left in 50 years for the western counties of Dallam, Hartley, Sherman and Moore; and 50-percent for the eastern counties of Hansford, Hutchinson, Ochiltree and Lipscomb.

The previous management plan was created before the DFCs were confirmed, so the district added a specific management goal and strategies designed to help achieve the DFC’s. Strategies for achieving DFCs include, revising rules as necessary, monitoring the condition of the aquifers and groundwater production, joint planning with other groundwater conservation districts, and managing withdrawals using annual allowable production limitations.

With approval of the new management plan, a one-year timetable begins for the process of revising rules to make sure they are designed to achieve the DFCs. The district has been reviewing the entire set of rules for the past several months. In the May meeting the board discussed alternative approaches to the management strategies of well spacing and density, as well as a triggering system that would activate further reductions in annual allowable production amounts, if necessary to meet the DFCs. The board will propose rules for public comment later in 2013.

## Conservation from Space in the 2013 “200-12” and “EPIC” Projects

Eleven of the twelve producers from last year’s “200-12 Project” will participate in the 2013 demonstrations. Six of the eleven producers have allocated a 120-acre field for both the control and managed sites in the project. The other seven producers have allocated one 120-acre field to split between the control and managed sites. There are a total of 1680 acres under pivot in the 2013 demonstration sites.

New for the 2013 demonstrations, some sites will use satellite imagery to estimate plant water requirements and to produce an irrigation schedule for the crop. The demonstrations will use a service called Targeted Irrigation

Management from the satellite imaging company, HydroBio ARS®. Other benefits include imagery that can identify areas of concern within the field. The district will use the Targeted Irrigation Management services on five of the demonstration sites. For more information, you can visit the HydroBio ARS® website at [www.hydrobioars.com](http://www.hydrobioars.com). The district will continue the use of PivoTrac® and AquaSpy® Soil Moisture Probes.

This year’s 2013 EPIC Project will include six corn demonstration sites, and for the first time the EPIC ideology will be applied to sorghum in Ochiltree County. The project will continue the use of AquaSpy® Soil Moisture Probes and AquaPlanner® Agricultural Irrigation Management, and will introduce HydroBio ARS® Targeted Irrigation Management. With the resignation from Texas A&M AgriLife Extension of former EPIC coordinator, Nicholas Kenny, North Plains GCD’s Agricultural Engineer, Paul Sigle EIT, will coordinate the project.

## NRCS Features High Plains Producers in PBS Series

By Quenna Terry, USDA-NRCS Public Affairs

Producers of the Public Broadcasting Syndication (PBS) television series, “This American Land” interviewed farmers David Ford and Harold Grall in Moore County, near Dumas. “This American Land” is a weekly magazine-style show that covers serious issues that affect America’s landscapes, waters and wildlife.

Through the assistance of USDA – Natural Resources Conservation Service (NRCS), “This American Land” is working with producers in rural locations. The episode, “Western Private-Lands Conservation,” will feature Ford and Grall, along with the NRCS’ Ogallala Aquifer Initiative.

For their interview with executive program producer Gary Strieker, Ford and Grall gave personal accounts of soil and water conservation practices they have implemented on their land to help conserve water from the Ogallala aquifer. Ford and Grall showcased a continuation of conservation practices to address water quantity and quality, energy efficiencies and soil health. Both agriculture producers own and operate farms where they have worked for years to conserve natural resources on their land for future generations.

Working through NRCS, Strieker wanted to find agriculture producers and managers of the agriculture industry who would be willing to participate in a series of episodes based on conservation. The episode featuring Ford and Grall will depict how agricultural producers are surviving the severe drought and using irrigation

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Satellite image generated by the Targeted Irrigation Management system to be used in both the “200-12” and “EPIC” demonstration projects. Vegetative index shows vegetation as the light areas on the image.



Mike Caldwell, NRCS, talks about conservation practices with Dumas farmer and NPGCD board member Harold Grall.



# Voters to Decide the Fate of Water Plan Funding

Lawmakers in Texas proposed the use of \$2 billion from the state's economic stabilization (rainy day) fund, to fund the State Water Plan, but it will still be up to voters to decide if it actually happens. During the 83rd Legislative Session three bills were passed that will pave the way for development of water resources for the future of Texas. The legislature passed SB 1025 which is a supplemental budget appropriations bill that sets aside the money to fund the plan. House Bill 4 assigns a re-organized

Texas Water Development Board the responsibility of administering the loan funds and requires water planners to present prioritized projects for funding consideration. Finally, Senate Joint Resolution 1 was passed to allow for the creation of two accounts from which the money would be loaned for water infrastructure and conservation projects; however, it also requires a constitutional amendment be approved by voters in November. If the amendment fails, the accounts are not created and the funds cannot be used.

"It is critical to provide access to low cost loans for rural communities to develop and improve their water systems and overall conservation efforts within the state," said Steve Walthour, District General Manager. "The loan funds, combined with diligent conservation measures will go a long way toward insuring the health, safety and the future economic viability of Texas."

# Crownover is District's newest Director

Justin Crownover of Stratford is the newest member of the North Plains Groundwater Conservation District's Board of Directors. Crownover replaced Wesley Spurlock as the Sherman County director following Spurlock's resignation in April. Spurlock said other obligations were interfering with his ability to devote the time necessary to do the job and he recommended Crownover to complete the remainder of his term.

Crownover received a degree in Business Administration in May of 1993 from Ottawa University in Ottawa, Kansas. After receiving his degree, Crownover began farming and was a partner at VMW Farms until January 2006. He then became a partner at Crownover Farms until 2009 when he became the general manager and partner of Lone Star Family Farms. Lone Star farms over 20,000 acres of land annually and uses new advances in technology to help conserve natural resources. By using a no till method and planting crops later in the season, Crownover is able to save groundwater consumption. He also uses Cat GenSets to produce electricity to run multiple irrigation wells, saving fifteen to twenty percent in fuel costs.

As well as being a director on the Board for North Plains GCD, Crownover is a board member of Family Farms Group and a member of the Moore



Justin Crownover replaces Wesley Spurlock as the Sherman County representative on the North Plains GCD Board of Directors. Justin is shown here with wife, Stephanie and sons (left to right) Cole and Connor.

Country Junior Livestock Buyers Committee. He is also an active member of the Sunray Baptist Church. He enjoys watching his two sons compete in sports and showing pigs at livestock shows.

Spurlock represented Sherman County on the North Plains GCD board for ten years. Wesley took over the seat in 2003, replacing his father, Neal Spurlock who held the seat for over twenty years.

# NRCS Features High Plains Producers in PBS Series

(continued from page 1)

water management practices coupled with good conservation measures to conserve water.

Ford, a farmer and cattlemen who is the director of the Corn Producers' Association of Texas and the Texas Corn Producers' Board, is one of several agricultural business owners using conservation strategies to help conserve resources and decrease input costs.

He showed the implementation of his conservation tillage system in the field and explained how the practice and management has reduced his irrigation, labor and fuel costs. According to Ford, the increased water infiltration with conservation tillage has also resulted in greater soil-water holding capacity, while maintaining crop residues and organic matter to help the soil hold onto water instead of losing it to evaporation or runoff.

"I am going to use any conservation strategy I can to conserve water for the life of my operation," Ford explained to Striker.

Grall, the Moore County director for the North Plains Groundwater Conservation District, recognizes water management conservation practices as a primary resource concern in the Texas panhandle. He is a partner in the "200-12 Project," which includes a NRCS Conservation Innovation Grant (CIG) for the Texas Panhandle – High Plains conservation project. It is a collaborative effort between NRCS, North Plains Groundwater Conservation District and other partners designed to demonstrate strategic irrigation and crop system management technologies and practices.

Grall, along with others, works to encourage producers to implement conservation practices and to recognize the importance of water conservation. The higher the level of adoption of water conservation practices, the closer the project will come to reaching its goal of 250,000 acre-feet of annual savings.

For Grall, conservation is a way of life, to care for the land as it provides for his family. Due to the increased use of conservation practices producers, like Grall, are demonstrating maximum crop production and efficient water saving. According to NRCS, some of the principal benefits of reduced tillage practices include improved water conservation and reduced soil erosion.

Striker says this water conservation episode of "This American Land" will air on PBS in October 2013 – [www.pbs.org](http://www.pbs.org) . For additional information about conservation practices featured in this program, please contact the local NRCS office in your county, visit the Texas NRCS website at [www.tx.nrcs.usda.gov/programs](http://www.tx.nrcs.usda.gov/programs), or visit the North Plains GCD website at [www.northplainsgcd.org](http://www.northplainsgcd.org).

# Annual Groundwater Production

The district requires non-exempt well owners to report their groundwater production annually. Exempt water use includes wells used to supply oil drilling and exploration rigs, water used in oil recovery and wells capable of producing less than 25,000 gallons per day that are used solely for domestic and livestock purposes. Since 2006, the district has monitored production through metering and the use of alternative measuring methods. The annual reported production is an indicator of aquifer and regional pumping conditions.

County	2007	2008	2009	2010	2011	2012
Dallam	171,131	222,642	229,785	210,605	335,360	372,274
Hartley	185,223	236,586	331,702	288,394	466,934	458,183
Sherman	125,679	172,726	219,397	216,282	399,173	347,778
Moore	84,980	122,444	157,305	141,939	244,457	234,688
GMA-1 West	567,013	754,398	938,188	857,220	1,445,924	1,412,923
Hansford	66,727	104,080	123,877	113,649	219,447	218,792
Hutchinson	21,844	36,005	38,319	32,028	57,793	72,230
Ochiltree	30,706	40,229	43,388	50,530	104,981	109,212
Lipscomb	31,364	25,668	27,182	28,939	52,535	55,572
GMA-1 East	150,642	205,982	232,766	225,146	434,756	455,806
Total	717,655	960,380	1,170,955	1,082,367	1,880,680	1,868,731

\*All numbers reflect acre-feet and may be subject to change. The production numbers for Dallam County will be changing slightly as the district begins to enter production for the newly annexed portion of Dallam County. The numbers in the chart for Dallam County are for current district properties only.



## District and Texas AgriLife Present Summer Irrigation Meetings

As drought conditions continue across much of the North Plains Groundwater Conservation District, getting the most out of every drop of water is still foremost on the minds of agricultural producers in the district. Doing more with less will be the focus at this year's summer irrigation meetings brought to you by Texas AgriLife Extension Service and North Plains Groundwater Conservation District. The four meetings across the district will highlight two irrigation demonstration projects in the North Plains that are sponsored by the district.

The irrigation projects include the district's "200-12 Reduced Irrigation on Corn Demonstration" initiated by the district in 2010. The "200-12 Project" is in the fourth year of a five-year planned demonstration but is likely to continue in some form beyond the five-year timeframe. "The board of directors is committed to continuing demonstrations that show producers the best practices for conserving water and remaining economically viable," said General Manager, Steve Walthour.

Since beginning as a districted-funded demonstration with board members as the only participants in 2010, the "200-12 Project" has received funding from both the The Texas Water Development Board and the USDA - Natural Resources Conservation Service and now involves 11 of the most progressive farmers in the area, including four members of the board. The project has also earned media coverage from local, state and national newspaper, radio and television outlets and received the Texas Water Conservation Advisory Council's Save Texas Water Blue Legacy Award for agriculture, and the state's highest conservation honor, The Texas Environmental Excellence Award for agriculture in 2012.

The meetings will also feature information from the AgriLife Extension North Plains "Efficient Profitable Irrigation in Corn" project, or EPIC as it



*Farmers and others literally gathered around during last year's irrigation field days to get the latest information about getting the most out of every drop of water.*

is known. The EPIC Project was awarded the Texas Environmental Excellence Award for agriculture for 2013.

"These projects are being recognized because they address the issues of diminishing groundwater resources and the irrigation agriculture economy that is dependent on them," said District General Manager, Steve Walthour. "The district sees it as part of the mission to show producers how to do more with less, not just make rules to require it."

All meetings will begin at 9:30 a.m. and are free. Lunch will be provided. The dates and locations are:

**Aug. 20:** Hutchinson County Irrigation Field Day, Morse Community Building, Morse.

**Aug. 21:** North Plains Irrigation Field Day, North Plains Research Field, Etter.

**Aug. 22:** Ochiltree County Irrigation Field Day, Veterans Building (Expo Grounds), Perryton.

**Aug. 23:** Dalhart Irrigation Field Day, Rita Blanca Coliseum, Dalhart.

Each location will include local topics that will be most pertinent to the local producers and showcase technologies used in the processes.

## North Plains Groundwater Conservation District and Cities Present "Operation: Summer Showers"

During summer months lawn watering can account for as much as 40 percent of a city's total water use. High temperatures and little to no rainfall throughout the district cause residents to have to water more often to keep their lawn from looking barren. "The summer months are usually a time when water demand peaks and the city water supplies are stretched," said Kirk Welch, Assistant General Manager – Outreach. "This year looks to be no exception."

The North Plains Groundwater Conservation District is helping residents within the district use water as wisely as possible during this critical time. Operation: Summer Showers is designed to raise awareness about the importance of water conservation through public service announcements on the radio and in the newspaper, combined with the distribution of free water-saving tools.

Operation: Summer Showers is intended to address water conservation issues related to the lack of showers outdoors and the high percentage of water used for showering and other household uses. "Lawn watering is the number one domestic use in the summer, while showering, laundry, and other uses indoors account for most of the domestic water use year-round," said Welch. While supplies last, the district will distribute low-flow showerheads and rain or sprinkler gauges, along with tips on efficient lawn watering and in-home water use.

Residents can pick up the free water-saving tools at the North Plains Groundwater Conservation District Office at 603 E 1st Street in Dumas, as well as at the City Hall in Booker, Spearman, Stinnett, Stratford, Dumas, Dalhart, and Perryton. For more information on Operation: Summer Showers call the district office at 806-935-6401, email [kwelch@northplainsgcd.org](mailto:kwelch@northplainsgcd.org) or log onto [www.northplainsgcd.org](http://www.northplainsgcd.org).

## Water Quality Testing Available

The North Plains Groundwater Conservation District monitors Ogallala water quality by collecting and analyzing samples from monitor wells within the district. The district is partnering with the United States Geological Survey to perform intense water quality analyses of about 32 wells over a two-year period. These wells will replace the wells the district previously monitored and will be sampled annually. It is the goal of the district to protect the quality as well as the quantity of our groundwater for the future.

The district also performs water quality analysis at the request of local landowners and prior to many land sales for banking and real estate concerns. Most analyses are free to district residents.

The district offers water quality tests for calcium, magnesium and total hardness, chloride, conductivity, fluoride, iron, nitrates, pH, sodium, sulfate, total dissolved solids, and presence/absence of coli-form bacteria.





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AND

<b>CITY HALL IN:</b>			
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<b>DALHART</b> 205 ROCK ISLAND AVE (806) 249-5511	<b>PERRYTON</b> 110 S ASH ST (806) 435-4014	<b>STINETT</b> 609 MACKENZIE AVE (806) 878-2422	



# Summer Intern

The district is pleased to welcome a temporary member of the team this summer as part of the summer internship program. The district's internships are designed to give students real world work experience, an overview of the mission and functions of the district, and an opportunity to apply their specific skills to contribute to the district's conservation efforts.

**Craig Kondoff** is a senior biological and agricultural engineering major at Texas A&M University. Craig is scheduled to graduate in May 2015. Craig graduated in 2010 from Smith Valley High School in Smith Valley, Nevada. He chose to go to Texas A&M because of the highly recognized engineering program available to students. Craig is involved with many organizations on campus including the Aggie Club of Engineers (ACE) and he is the upcoming Internal Vice President of PIKE, a campus fraternity. Craig is assisting the district with the "200-12 Project" by gathering and reporting data, as well as writing the well rehabilitation report for the district's research field. Craig is hoping to gain knowledge and relevant experience in the field to include on his resume, as well as build a network of contacts and professional references.



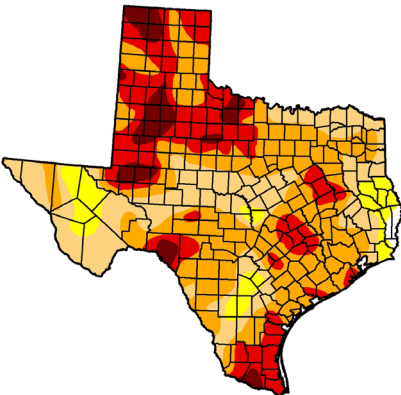
Craig Kondoff, Summer Intern

## U.S. Drought Monitor

July 23, 2013  
Valid 7 a.m. EST

Texas

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.62	99.38	92.54	67.42	28.31	6.35
Last Week (07/16/2013 map)	0.30	99.70	94.38	70.99	33.43	12.07
3 Months Ago (04/23/2013 map)	1.45	98.55	92.21	70.03	38.05	11.93
Start of Calendar Year (01/01/2013 map)	3.04	96.96	87.00	65.39	35.03	11.96
Start of Water Year (09/25/2012 map)	9.13	90.87	78.73	57.41	24.91	5.18
One Year Ago (07/17/2012 map)	12.40	87.60	70.95	33.23	8.17	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, July 25, 2013  
Richard Heim, National Climatic Data Center, NOAA

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CONSERVATION DISTRICT**  
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# Summer Water Conservation Tips

The North Plains Groundwater Conservation District promotes water conservation of all kinds. During the summer months, water demands peak and the city's water supplies are stretched. Lawn watering is one of the major consumptions of water during the summer. Although watering your lawn is not a bad thing, we encourage you to make sure you get the most benefit out of every drop. Here are some suggestions for making your lawn watering more efficient:

- 1) Don't water things that don't grow, like streets and sidewalks.
- 2) Water early or late in the day when there is less heat to cause evaporation.
- 3) Water when there is as little wind as possible to keep the water on your lawn.
- 4) Make sure you don't over water. Lawns rarely need more than one inch of water per week.
- 5) Use a rain gauge to measure rainfall so you don't water if you don't need to.
- 6) Water when your lawn needs it, not on a timer. Use a rain gauge or tuna can to know when you've

applied no more than one inch of water per week.

- 7) Allow grass to dry between watering to promote deeper root growth.
- 8) Cut your lawn to 2 ½ - 3 inches. Taller grass shades the soil, reducing evaporation.
- 9) Don't bag your clippings. Using a mulching blade saves you time and the clippings create a natural mulch to hold moisture.

Showering and other water uses inside the house account for most of the domestic water use year-round. If you follow these tips you can reduce your water usage whatever the season:

- 1) Do not use the toilet as a trash can. The toilet is the highest user of water in most households.
- 2) Fill a plastic bottle with pebbles and place it in your toilet tank. This will reduce the amount of water used in each flush. (Keep the bottle away from the mechanics of the toilet.)
- 3) Install new water-efficient fixtures and appliances throughout your house.
- 4) Turn off the faucet when you brush your teeth.
- 5) Only wash full loads of laundry or adjust the water



level in your washing machine to match the size of the load.

- 6) Fix leaks in sinks and toilets.
- 7) Take a 5 minute shower instead of a bath.
- 8) Use the garbage disposal sparingly. Compost vegetable and food waste instead and save gallons every time.
- 9) For cold drinks keep a pitcher of water in the refrigerator instead of running the tap and wasting water while you wait for it to get cold.

Finally, make sure you are in compliance with any water restrictions in your city. For more information about water conservation practices you may call the North Plains Groundwater Conservation District at 806-935-6401 or email [kwelch@northplainsgcd.org](mailto:kwelch@northplainsgcd.org).