# North Plains Water News



A Publication of the NORTH PLAINS GROUNDWATER CONSERVATION DISTRICT

VOLUME 58, NO. 3 "Maintaining our way of life through conservation, protection, and preservation of our groundwater resources."

Fall 2012

### **Seeking Input on New District Rules**

The North Plains Groundwater Conservation District wants youto tell us what changes need to be made to the current rules of the district. At the district's October board meeting the board proposed amending the district's rules to allow a water rights owner to continue to use alternative metering methods or a central collection point, such as a pivot to measure production from multiple wells, until he drills a new well, brings an old well back into service or applies to pool a property.

Once, a new well is permitted, a permit is amended on an unused well to bring it back into service, or the property owner pools a property or changes a previously pooled property, the district would require a meter to be placed at the pump on each well on the property. The meters at the wells would replace the alternative metering method or a central metering point as the method for reporting annual water production.

The district will hold three hearings on this rule. The hearings will be

held in conjunction with hearings for proposed updates to the management plan. In addition to this proposed rule change, the district will propose other changes to address the district's desired future conditions (DFCs) set in 2010. According to General Manager Steve Walthour some of the proposed changes will also be aimed at streamlining the process. "We want to clean up rules that need to be either modified or discarded as a result of the district's changing water conservation responsibilities to the state and local stakeholders," said Walthour.

The district will be meeting with stakeholder groups to gather input and suggestions regarding potential proposed rules. Any proposed rules will be posted for review on the district website and published in the newspaper prior to presentation at a public meeting. No new or amended rules will take effect until ratified by the board of directors.

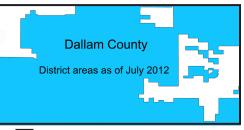
For more information or to provide input on district rules call 806-935-6401, email swalthour@northplainsgcd.org or contact the district director for your county.

## Dallam County PGMA Residents Vote on District Tax

Residents of the former Dallam County Priority Groundwater Management Areas (PGMAs) will be voting to decide if they will assume the current rate tax paid by the rest of the North Plains Groundwater Conservation District to fund the district's services in those areas. The vote will be included in the regular election on November 6. No results from the election were available at press time.

The three previously unaffiliated areas (shown in white on the map) were ordered into the district by the Texas Commission on Environmental Quality in July. The order resolved a situation that began when the areas were designated as Critical Management Areas in 1990 and later legislation recognized them as Priority Groundwater Management Areas, because of the potential for critically low groundwater conditions in the future.

If residents vote not to pay the current tax rate of 2.6 cents per \$100 of property valuation, the district may then create a schedule of production fees to be charged to residents in those areas, based on the volume of groundwater produced. The cost of operations for the newly added areas is calculated to be approximately \$100,000 annually. The



New District Areas

current tax rate would generate less than \$20,000 leaving the remaining \$80,000 or more to be absorbed by the district. If the tax election fails the district will develop a production fee schedule that will be proposed and considered as a district rule. The basis for a production fee has not been considered by the board.

Voting will take place at the Dallam County Courthouse Annex, 412 Denver Avenue in Dalhart and at the Texline City Hall, 517 South 2nd in Texline. Only full-time residents of the areas are allowed to vote on the district tax question.

#### Important Dates for PGMA Transition into District

October 1, 2012 - All new wells must be permitted and registered with the district November 6, 2012 - Residents of the PGMA areas vote on whether or not to assume the district's tax rate to fund operations

<u>December 31, 2012</u> - Metering method recorded with the district for all reporting wells

<u>March 1, 201</u>3 - Production reports due to qualify for Groundwater Conservation Reserve for 2010-2012

March 1, 2014 - Production reports due for all qualifying PGMA area properties

### **2012 200-12 Project Update**

At this writing corn harvest is in progress and the "200-12 Project" demonstration fields are in various stages of completion. The annual report will be compiled when the yield data is in for all demonstration fields. Meanwhile, there are a few things we do know about the 2012 growing season that have impacted the demonstrations. The continuing drought, hail damage and a heat wave in August have all taken a toll during the 2012 growing season.

Abnormally dry conditions began creeping into the area in September 2010 and escalated into one of the most severe droughts on record by March 2011. Though rainfall amounts were slightly better than last year for most of the district, the area stayed in severe-to-extreme drought throughout the summer.

Much of the northern panhandle remains in an extreme-to-exceptional drought. This relative lack of rainfall means that the conditions for raising crops were about as challenging as they were last year.

Another thing we know is that while the area did receive more rain this year compared to last, it was often accompanied by destructive hail. Certain areas of the district experienced significant losses due to hail damage and the "200-12 Project" demonstrations will reflect that.

On a positive note, while the temperatures this year were comparable to last year and the rainfall was minimal, the winds did not come at such extreme speeds as last year, or for such extended

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### **2011 District Water Levels Completed**

The district monitors water level declines annually as an important part of managing the area's groundwater resources. The district tracks the declines in groundwater by maintaining a network of over 425 water-level monitor wells. These monitor wells are measured annually beginning in January or February 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 44 dedicated monitor wells and installed monitoring equipment in 34 of those. These continuous measurements create a valuable record of the ongoing changes in water levels. These nonproduction wells are dedicated solely to data collection. Dedicated, nonproduction monitor wells provide information with a greater degree of accuracy, reliability and consistency than do the other types of wells the district may monitor. They are also available, if necessary, for conducting water quality analyses and other aquifer tests and that cannot easily be conducted

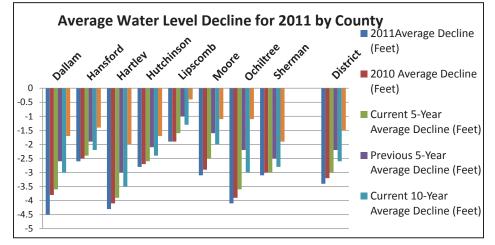
in other types of wells.

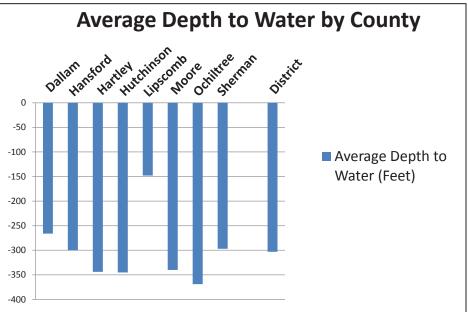
Changes in water levels in district monitor wells vary from rises in some instances to declines that locally may exceed 8-10 feet per year. Each county in the district has areas of little to no decline, as well as areas of much greater decline. However, the average changes recorded by monitor wells in each county show declining water levels.

In the district declines are caused predominately by pumping and are influenced by surface recharge of the aquifer and lateral flows into and out of the aquifer. Recharge of the aquifer from the surface comes from rainfall and snowmelt. The Panhandle of Texas receives such modest amounts of rain and snow, and has such a high evaporation rate, that there is little opportunity for surface recharge to appreciably affect water levels.

Another aquifer characteristic affecting recharge rates and consequently how much water a well can produce is inter-formational flow. Inter-formational flow is a flow of water from one part of an aquifer into another part of the same aquifer.

The data from the 2011 season water level measurements have been gathered and tabulated and the results are presented in the following illustrations. For information on measurements in specific areas please contact the district at 806-935-6401.





### Plan Now for 2013 Groundwater Production

Annual allowable production for all producers of groundwater in the district is 1.5 acre feet/acre of groundwater rights (18 inches). The allowable production limits apply to all producers including, agricultural, municipal, industrial, confined animal feeding operations, and exporters.

In addition to the annual allowable production amount, any producer who has Groundwater Conservation Reserve (GCR) available from the past three years may use up to six inches of the GCR during 2013. The allowable production for 2013 combined with maximum GCR of six inches equates to two acre feet/acre available for production in 2013.

The GCR began in 2010 and was created as a means to promote conservation and water use efficiency, while giving producers more flexibility to manage their resources. The GCR allows producers to save unused allowable production from one year to be used in either of the next five years. A maximum of six inches of GCR may be applied to any production year. Failure to file production reports on time will

result in a loss of the GCR for that year. Compliance with the district's allowable production limits helps well owners save water, but can also save money by avoiding fees for exceeding production limits. The district's board has adopted a policy of initially assessing a fee for exceeding the district's production limits, instead of pursuing litigation. If well owners exceed the production limit the board requires the well owner to install a meter and assesses fees as follows:

- First offense: \$25 per acre/foot
- Second offense: \$75 per acre/foot
- Third offense: \$225 per acre/foot

For example, if a producer pumps three inches over their allocation on a 640 acre section, that equates to 1920 acre/inches or 160 acre/feet over the annual production limit. On the first offense, that scenario would produce a fine of \$25 x 160 acre/feet = \$4,000. On the third offense this scenario would produce a fine of \$225 x 160 = 36,000. If you have questions about your water planning for 2013, district staff will be happy to assist you.

### 2012 Production Reporting Highlights

Aschedule for the 2012 production reporting process has been set by the district staff. The 2012 Annual Production Reports are scheduled to be mailed on Friday, December 7th. Producers should receive the reports by the target date of December 14th. Anyone who does not receive their 2012 Annual Production Reports by December 20th should contact the district office. The reports are due in the district office by close of business on Friday, March 1, 2013.

The district will send a special notice to the producers who failed to file their 2011 Annual Production Reports on time. The notice will remind the producers that if the 2012 Annual Production Reports are filed

by close of business on Wednesday, January 16, 2013, the late filing fee charged for 2011 will be refunded in full.

The district will again be participating in the Crop Production Clinics sponsored by Pioneer Hybrid, Inc. The 2012 Texas & Oklahoma Panhandle Crop Production Clinics will be held in three towns in our district. The dates and locations for the Clinics are: January 7th – Dumas, January 8th - Dalhart, and January 10th - Spearman. District staff will be available at the Clinics to answer questions regarding production reporting and the Groundwater Conservation Reserve program, and to assist producers in completing their production reports.

Find us on the the web at: www.northplainsgcd.org On Facebook just search "North Plains Groundwater" On Twitter: www.twitter.com/NorthPlainsGCD







### Management Plan to be Reviewed and Adopted

Each year the district reviews its management plan developed to achieve the district's goals. The district adopted the current management plan in 2008. Since 2008, the district has adopted desired future conditions (DFCs) for the Ogallala and Dockum aquifers. A "desired future condition" is a quantitative description of the desired condition of the groundwater resources in a management area at one or more specified future times.

The DFC goals were developed by the district as a result of joint planning in Groundwater Management Area 1 (GMA-1). The district is located entirely within GMA-1 which also includes Hemphill County Underground Water Conservation District, Panhandle Groundwater Conservation District, and part of High Plains Underground Water Conservation District. GMA-1 and the district adopted DFC's for the district's area during the joint process.

Based on those DFCs, the Texas Water Development Board (TWDB) executive administrator provides each district with the modeled available groundwater (MAG) in the management area. The state requires the district's management plan to include the DFCs of the aquifers within the district's jurisdiction and the amount of the modeled available groundwater from such aquifers. Well owners within the district withdraw groundwater from three aquifers including the Ogallala aquifer that is located throughout the district; the Rita Blanca aquifer that is located in the northwest corner of Dallam County and possibly in the extreme west portion of Hartley County; and the Santa Rosa Formation of the Dockum aquifer that is located in all or part of Dallam, Hartley, Moore and Sherman Counties.

In addition to DFC goals, the district proposes to amend the plan as necessary to address its other management goals including:

- Providing the most efficient use of groundwater;
- · Controlling and preventing waste of groundwater;
- · Controlling and preventing subsidence;
- Addressing conjunctive surface water management issues;
- · Addressing natural resource issues;
- · Addressing drought conditions; and
- Addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control where appropriate and costeffective.

The district designed the proposed management plan to include goals for managing and conserving the groundwater resources within its jurisdiction. The proposed plan identifies the water supply resources and water demands that will shape the district's future decisions.

The district will set hearings to receive comment before it considers adoption of the plan. Once comment has been taken the board will schedule a meeting to consider adoption of the plan. The public hearings should occur before the end of the year and the board should take up adoption of the plan in either December or January.

#### 2012 200-12 Project Update

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periods during critical times in the growing season. Less wind reduced the stress on the crops and could lead to improved yields this year.

The district provided numerous opportunities for public education and interaction regarding the "200-12 Project" this year. Community members attended four irrigation meetings during August that highlighted the "200-12 Project" as well as the "EPIC" project, which is a cooperative effort between the district and Texas A&M AgriLife Extension. EPIC is an acronym that stands for Efficient Profitable Irrigation on Corn. The district provides funding for EPIC and supports its goal of demonstrating strategies for saving precious inches of irrigation even in high-yield corn operations. The August meetings and field visits were presented in cooperation with Texas A&M AgriLife Extension and Research.

In addition to the community field days, the district hosted two days of "200-12 Project" Turnrow Tours. These tours provided an opportunity for community members and the cooperating growers to see as many of the fields as possible in two days of driving from one side of the district to the other. Project coordinator, Leon New was joined in the fields by the cooperating growers to discuss what was happening in the field and how to maximize the results this year and in the future.

The final report for this year's "200-12 Project" is scheduled for publication some time after the first of the year. For more information on the "200-12 Project" visit the web site at http://tinyurl.com/akdow37 or call the district office at 806-935-6401.

### WaterWise Conservation Education Results

The WaterWise Conservation Education Program for fifth graders is conserving resources and educating students and their families. The district introduced WaterWise as a pilot program in Lipscomb County during the 2009-2010 school year. For the past two years the program has been offered free to schools across all eight counties of the North Plains Groundwater Conservation



District. "There were 847 teachers and students who participated in the second year of the district-wide program," said Kirk Welch, district assistant general manager for outreach. "WaterWise uniquely combines an educational project and a conservation project with measureable resource savings," said Welch.

As part of the program, parents/guardians and students installed resource conservation tools in their homes. They also measured the efficiency of pre-existing devices to calculate savings that they generated. Using the family habits collected from a home survey as the basis for this calculation, eight hundred forty seven (847) households are expected to save the following resource totals. Savings from these actions and new behaviors will continue for many years to come.

#### TOTAL PROJECTED PROGRAM SAVINGS:

Annual
7,130,762 gallons of water
23,618 therms of gas
310,941 kWh of electricity

Lifetime
49,431,540 gallons of water
172,403 therms of gas
2,278,861 kWh of electricity

By installing and monitoring the new efficiency tools in their own homes, students are able to measure what they learned with actual water, energy, and monetary savings. These savings benefit both the participating student households and their communities. "The kids got a lot out of testing their home water systems," said Brent Mahaney, fifth grade teacher at Sunray Middle School.

The school-based WaterWise Program is fully implemented and designed to generate immediate and long-term savings by bringing interactive "real world" education home with motivated students. The program staff identifies and enrolls students and teachers within the designated service territory. Enrolled participants receive educational materials designed to build knowledge and demonstrate simple ways to save, by not only changing habits, but also changing devices. Materials meet state and national educational standards, which allow the program to easily fit into teachers' existing schedules and requirements.

The program begins with classroom discussions teaching the importance of using water and energy efficiently, followed by hands-on, creative problem solving. Next, participants take home a WaterWise Kit that contains conservation tools. With the help of their parents/guardians, they install the tools in their home and complete a home survey. Here are a few samples of questions asked on the home survey.

Did you install the new High-Efficiency Showerhead? Yes - 63%
Did you work with your family on this Program? Yes - 81%
Did your family change the way they use water? Yes - 77%

Program evaluations and comments were collected from teachers, students, and parents/guardians. All of these responses are tabulated and included in the Program Summary Report.

The North Plains WaterWise Program has had a significant impact within the community. The program successfully educated a portion of the community about water and energy efficiency while generating resource savings through the installation of conservation tools in homes. Students were asked to complete a ten question test before the program was introduced and then again after it was completed to determine the knowledge gained through the program. The average student answered 6.3 questions correctly prior to being involved in the program and then improved to answer 7.1 questions correctly following participation.

This article was compiled from excerpts from the 2011-2012 North Plains GCD WaterWise Program Summary Report.

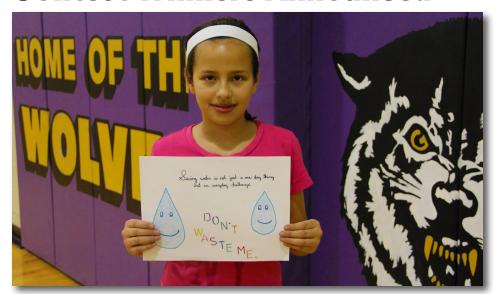
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### Water Conservation Artwork Contest Winners Announced



Danira Garcia, daughter of Marcelino and Angelica Garcia of Spearman is this year's grand prize winner in the Water Conservation Artwork Contest sponsored by North Plains Groundwater Conservation District. The annual contest is open to all fourth, fifth, and sixth grade students who reside within the district.

Danira's artwork titled "Don't Waste Me" features smiling water drops sharing the wisdom that, "Saving water is not just a one day thing, but an everyday challenge." Danira will receive a certificate of recognition, a \$50 cash prize, and her artwork will be featured on the cover of the 2013 North Plains Groundwater Conservation District Water Conservation Calendar. Danira was in Mrs. Przilas' class at St. Anthony of Padua Catholic School in Dalhart last school year when the entries were submitted. The calendars are free to the public.

Other winners in this year's contest are:

Emma Shartz – artwork titled "Water a

Plant". Emma is the daughter of Bill and Sayra Shartz and was in Mrs. Przilas' class at St. Anthony of Padua Catholic School in Dalhart.

*Tracy Hill* – artwork titled "Water Harvest is Good". Tracy is the daughter of Rick and Tara Billons and was in Mrs. Howard's class at Higgins School.

**Dylan Green** – artwork titled "Instant Water Filter". Dylan is the son of Dallas and Shawna Green and was in Mrs. Thatcher's class at Hillcrest Elementary School in Dumas.

Claire Thompson – artwork titled "Conserve Rainwater". Claire is the daughter of Robi and Chris Thompson and was in Mrs. Thatcher's class at Hillcrest Elementary School in Dumas.

*Harrison Fly* – artwork titled "Turn Off Water". Harrison is the son of Kirk and Emily Fly and was in Mrs. Przilas' class at St. Anthony of Padua Catholic School in Dalhart.

**Daniela Martinez** – artwork titled "Wash Your Vehicle on the Lawn". Daniela is the daughter of Rafel and Candy Martinez and was in Mrs. Clemens' class

at Dalhart Intermediate School.

Viviana Gavina – artwork titled "Save Water, Don't Waste Water". Viviana is the daughter of Maribel Padilla and was in Mrs. Olson's class at Dalhart Intermediate School.

Francine Hernandez – artwork titled "Load it Up". Francine is the daughter of Jose and Maria Hernandez and is in Mrs. Goodwin's class at Morningside Elementary School in Dumas.

Maci-Lyn Haaland — artwork titled "Conserving Water While Brushing Teeth". Maci-Lyn is the daughter of Monica Haaland and was in Mrs. Przilas' class at St. Anthony of Padua Catholic School in Dalhart.

*Karla Orrantia Anaya* – artwork titled "Help Save Water". Karla is the daughter of Ubaldo Orrantia and Aracely Anaya and was in Mrs. Olson's class at Dalhart Intermediate School.

Luke Daniels – artwork titled "The Water Dollar". Luke is the son of Scanlon and Angela Daniels and was in Mrs. Kaul's class at St. Anthony of Padua Catholic School in Dalhart.

**Savanna Watson** – artwork titled "Every Little Drop Counts". Savanna is the daughter of Ronald and Anita Watson and was in Mrs. Przilas' class at St. Anthony of Padua Catholic School in Dalhart

All of these students received certificates of appreciation, a \$25 cash award, and will have their artwork featured inside the annual Water Conservation Calendar. In addition, each student will receive copies of the calendars to share with friends and family.

The free water conservation calendars serve as a colorful reminder throughout the year of ways that each of us can be more responsible for our water resources in the little every day actions that we can take. The calendars will be available at the North Plains Groundwater Conservation District offices at 603 East 1st Street in Dumas, and also at water utility offices in each town within the district. You can also request copies of the calendar by calling the district office at 806-935-6401.

The district would like to thank all of the students who participated in this year's contest.

The district also appreciates the parents and teachers who encourage their students to enter this contest each year. It is an excellent way to encourage students to think about ways that they could conserve water and get a water conservation message to others through their art.

