

Panhandle Water News

OCTOBER 2016

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District Uses New Program to Collect Meter Data

At Panhandle Groundwater Conservation District, our mission is to develop, promote and implement water conservation, augmentation and management strategies to protect our water resources. PGCD is continually striving to be as precise and accountable as possible in its data collection and analysis. This past year, in an effort to further this goal, the District employed the help of Intera Geoscience and Engineering Solutions to update our meter data collection process.

Intera project engineers along with PGCD staff were able to develop a real time data collection and entry web application named Meter Maid (MM). MM can be used by PGCD Field Technicians on any smartphone, tablet, or PC to access a web page that connects directly to the server at the PGCD office. The web page allows technicians to capture and submit meter readings, photographs of the meters, GPS location, current crop(s) being irrigated, current GPM, actual time and date of reading, and any other notes for each meter. MM also provides a complete, up-to-the-minute reading history of each meter to the technician right there in the field. Once the data is submitted from anywhere in the field it is automatically saved to the server. The PGCD administrative staff can then review all data captured from individual meters submitted by all Field Technicians. After the meter data is reviewed and verified to be accurate it is permanently entered into the District's database.

The new MM process allows PGCD to verify and document the accuracy of each meter reading through meter pictures, GPS and time and date recordings without having to

physically back track and retrace steps in the field. Having all of this information in one program allows for more user friendly data analysis and eliminates entering data multiple times. This saves the District time and more importantly money.

The District began using MM in the field in June of 2016. PGCD will continue to refine the Meter Maid program with plans to expand the process into all fields of data collection and analysis in the near future.

Example of a meter picture taken by PGCD Field Technicians. One important factor of MM is a picture/GPS Location is requited before being able to complete any further readings, ensuring readings and locations are accurate.





Study and Conservation Areas to Remain

During the September 21st PGCD Board Meeting, Board of Directors voted to keep all Study and Conservation Areas as currently delineated. At this time, there are 16 Study Areas and one Conservation Area.

The main determining factor for delineation into a Study Area is exceeding the acceptable annual decline rate of 1.25 percent. Conservation Areas are those that have exceeded the 1.25 percent for two or more years, while also exceeding the acceptable cumulative decline in saturated thickness, which varies across the District. All criteria for Study and Conservation Areas can be found in District Rules, which are posted online at www.pgcd.us/rules/.

The Board also had a lengthy discussion over the District's current guidelines regarding the delineation of Conservation Areas. It was decided to have a committee of Board Members review Rule 15.

2016-2017 PGCD Scholarship Question

The Panhandle Groundwater Conservation District established its scholarship program in 2002 and has since given away \$126,000 to graduating District students. First place is awarded a \$4,000 scholarship, second place receives \$3,000 and third place \$2,000. Each scholarship amount is split into a four year payout.

Graduating seniors living within the District (Armstrong, Carson, Donley, Gray, Potter, Roberts and Wheeler counties) are eligible to apply for the scholarship. Applicants must write a 500-1,000 word essay on the topic chosen by the District. Recipients are required to enroll as a full-time student, attend college the fall semester immediately following selection and maintain at least a 2.5 GPA at the college of their selection.

The 2016/2017 essay topic is:

Water is an important part of our daily lives, and it is becoming a limited resource in many areas, including the Texas Panhandle. What conservation strategies should county governments, municipalities and water districts implement to be most effective in our area?

Applications and additional information can be found online on the District's website at www.pgcd.us.

Please note, the District is not longer using Amarillo Area Foundation to filter applications. Please pass this information along to High School Counselors and graduating Seniors.

Forecast for Fall and Winter Cooler and Wetter

Fall has arrived and all of the counties in the Panhandle Groundwater Conservation District are already close to or above their yearly rainfall normal. The chart below shows the average year to date rainfall for the counties through August compared to the total yearly rainfall amount.

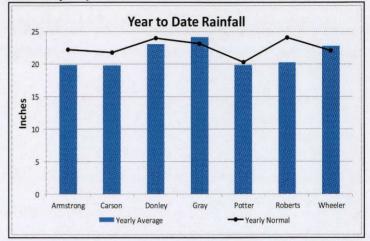


Chart 1: County average year to date rainfall through August compared to the total normal yearly rainfall.

While drought has been a topic of concern in recent years, this year the state has remained mostly drought free with only a few areas during the summer seeing some abnormally to moderate drought. The Texas Panhandle is currently clear of drought and the U.S. Drought Monitor Report below from September 27, 2016 shows the current conditions throughout the United States.

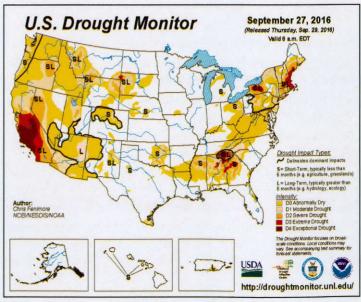


Figure 1: U.S. Drought Monitor September 27, 2016.

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The outlook for the winter forecast has changed directions some as we have moved into fall. The majority of the models during the summer were predicting a high chance of La Niña through winter 2017. According to the Climate Prediction Center, chances in June were 75 percent which fell to 55-60 percent chance in July, and fell again in August to 40 percent. During the summer, sea surface temperatures were cooling which warranted the La Niña watch; however, the pace of the cooling has slowed and models are now leaning towards ENSOneutral conditions for winter 2017. The La Niña watch was dropped in the September 8, 2016 report from the Climate Prediction Center. Sea surface temperatures will continue to be monitored through the year as trends may shift some for late winter into early Spring.

The current Climate Prediction Center outlooks for November, December and January show the Texas Panhandle with slightly below normal rainfall chances and above average temperatures. Some portions of the Panhandle have already been an example of these conditions during September. The Amarillo National Weather Service reported 0.82 inches of rainfall which was a -1.04 inch departure from normal. The average monthly temperatures was reported at $71.8^{\circ}F$ which is 2.1 degrees warmer than normal.

Rainwater Harvesting Rebate Program Update

District staff members presented a new option to the Board of Directors for the Rainwater Harvesting Rebate Program at their September 22 meeting. After reviewing the staff recommendation, the Board voted and accepted the proposal.

Option One: Rebates up to \$0.50 per gallon of storage capacity are available for all rainwater harvesting systems not to exceed 50 percent of the total system cost. Steps for participation vary based on storage capacity installed. New systems will take priority over system additions. Systems less than \$5,000 will be reviewed by District staff members for approval, and any systems estimated to cost more than \$5,000 will go to the Board of Directors for approval.

Option Two: Applicants will apply for a loan through the District office. If approved, applicants must put 10 percent down of the total system cost, and PGCD will finance the rest of the money. Applicants will pay the District back over a period of five years at an interest rate of 1.12 percent. Again, systems with an estimated cost less than \$5,000 will be reviewed by District staff members, and systems estimated to be over \$5,000 will be submitted to the Board for approval.

To date, PGCD has granted two applications under the Rebate Program. Applications can be found at www.pgcd.us.

Education Program Starting 17th Year

PGCD is starting up the seventeenth year of its education program. The program was created in 1999 and has since reached out to thousands of students across the District. It is stated in PGCD's management plan for the District to reach out to at least 80 percent of the schools within the district boundaries to teach them about water conservation. However, our goal is to reach 100 percent to ensure we are making an impact on the importance of water conservation to our future generations.

The program focuses on fifth grade students, teaching them about the importance of water conservation, the water cycle, about the Ogallala Aquifer, where our water comes from, and playa lakes. Many of the topics discussed teach them objectives they are tested on in the State of Texas Assessments of Academic Readiness test, making it a great educational aid for teachers.

We also have an underground flow model that is a great visual aid of how wells operate, what the aquifer looks like, and how water flows beneath the earth. At the end of the presentation we give the students a water saving kit that allows them to take conservation practices into their own hands.

It is a great tool for educating our youth about water conservation and we are excited to be able to start another year in the classrooms. If you would like to schedule an education presentation or would like any other type of presentation given please contact Britney Britten at the PGCD office at (806) 883-2501 or by email at pgcd_education@yahoo.com.

In addition to the 5th grade education presentation, Britney also presents to local civic groups and other organizations. Topics include, General District Information, Xeriscrape Gardens, Rainwater Harvesting Information and Ways to Conserve Water at Home. Our presentations are great for any Club, including: Lion's Club, Boy or Girl Scout Troops or evening gardening clubs. Contact the office today to schedule your next presentation.

2016-2017 Tax Rate

During the August 18 Board Meeting, Panhandle Groundwater Conservation District's Board of Directors approved the 2016-2017 tax rate. The tax rate will be 0.00902/\$100 valuation. Though a slight increase, the effective tax rate is the total tax rate needed to raise the same amount of property tax revenue for PGCD from the same properties in both the 2015 and 2016 tax year.

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