

North Plains Water News



A Publication of the NORTH PLAINS GROUNDWATER CONSERVATION DISTRICT

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LATE SUMMER 2016

District Dedicates Richard S. Bowers Conservation Learning Center

More than 100 family, friends and colleagues of the late Richard Bowers gathered at the North Plains Water Conservation Center (WCC) in June for the dedication of the facility's learning center in honor of the former general manager of the district. In March, the district's board of directors voted unanimously to dedicate the building in memory of Bowers, based on his 35 years of leadership and exceptional public service in water conservation. The North Plains Groundwater Conservation District's dedication of the Richard S. Bowers Conservation Learning Center was held on June 14, 2016 at the WCC, about 9 miles north of Dumas, Texas.

Mr. Bowers became the general manager of the Panhandle Groundwater Conservation District, located in White Deer, TX in 1979, serving there until he accepted the general manager's position at North Plains Groundwater Conservation District (District) in 1987.

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"3-4-5" Field Days Include Texas Water Development Board Chairman

In the second year of the "3-4-5 Gallon Maximization Project" (3-4-5), the district received more normal rainfall that, as usual, tended to vary substantially from one demonstration site to the next. Across the district the in-season rainfall totals were closer to average when compared to the drought years of 2011 and 2012, but generally less than in 2015. At this writing many of the 2016 corn fields are looking good, and project organizers expect significantly beneficial data that will help in developing strategies for maximizing crop yield per drop of irrigation. More specific information will be available once the crops are harvested and the data is tabulated.

In 2015, demonstrations in the western counties tended to receive more in-season rainfall than those on the eastern side of the district. Rainfall for the demonstration fields ranged from 16.60 inches to 10.77, with an average of about 13.5 inches of in-season rainfall at the demonstrations locations. The demonstration locations were in Dallam, Hartley, Moore and Ochiltree Counties.

The "3-4-5" project picks up where the district's "200-12" project left off. Participants in the "3-4-5" are using variable rate irrigation to simulate 3, 4, and 5 gallon per minute per acre irrigation conditions in side-by-side, production-scale demonstrations. Irrigation is 1.10 inches per week for the 3 GPM acres, 1.49 for the 4 GPM and 1.85 inches for the 5 GPM. The "3-4-5" participants are applying many of the same techniques and technologies used in the "200-12" and demonstrating their applications under the selected levels of available irrigation using programmed variable rate irrigation (VRI) by speed control.

The 2015 demonstrations showed that on average the 3 GPM fields produced more yield per inch of irrigation than both the 4 and 5 GPM fields, respectively, as well as an average higher revenue return per inch of irrigation. You can find more detailed information in the 2015 Final 3-4-5 Report, available on the District's website at www.northplainsgcd.org.

The "3-4-5" project, with the help of board member and cooperater, Harold Grall, continued demonstrations initiated in 2015 comparing Precision Mobile Drip Irrigation (PMDI) to Low Energy Precision Application (LEPA). PMDI involves drip hoses being pulled around the field by the center pivot system and applying the

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Over 100 friends, family and colleagues attended the dedication of the Richard S. Bowers Conservation Learning Center at the North Plains Water Conservation Center. The Honorable David Swinford delivered the keynote remarks.

First Class Completes Master Irrigator Certification

The first year of the Master Irrigator Program wrapped-up in July with 21 participants completing the course and qualifying for a share of the North Plains GCD EQIP funding. Approximately \$400,000 from the special fund will be distributed to the first year graduates to off-set the cost of water conservation practices to be implemented in their respective operations.

Through a partnership agreement between the North Plains GCD and the USDA's Natural Resources Conservation Service (NRCS), an estimated \$1.6 million in funding through the Environmental Quality Incentives Program (EQIP) was designated to support the new Master Irrigator Program.

The Master Irrigator program is an irrigation management curriculum made up of 32 hours of intensive irrigation education designed to show producers how to maximize advanced conservation irrigation management and conservation practices that work together to save water, conserve energy and build healthy soil.

The program is focused on increasing understanding of and proficiency with the latest irrigation management tools, technologies and practices such as pivot conversions, variable frequency drives, conservation tillage, irrigation water management and more. The program objectives are to prepare participants to know what tools and strategies are available for water savings, to understand how and why they work, and ultimately to choose and effectively apply them to maximize their return on investment for every drop of water they use.

District board member Danny Krienke said the Master Irrigator is a natural next step in the agriculture conservation plans of the district. "After several years of successful demonstrations of a systematic approach to on-farm water conservation, we believe it is time to make the move from demonstration to adoption, and we believe the Master Irrigator program is the right vehicle to take us there," said Krienke.

According to Steve Amosson, PhD., Texas A&M Regents Fellow and Extension Economist, and project facilitator for the Master Irrigator program, one of the major obstacles to adoption of new water saving technologies and practices is lack of understanding of the benefits, and how an operator can achieve and maximize those benefits. He said the Master Irrigator Program is designed to bridge that knowledge gap. "To that end, the Master Irrigator program will properly train producers in the use of the technologies and application of the strategies to

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North Plains GCD Board Members Selected for GMA 1 Posts

Bob Zimmer, Hansford and Hutchinson County Director of the North Plains Groundwater Conservation District (GCD), has been selected to continue as chairman of Texas Groundwater Management Area 1 (GMA 1). Also reappointed to represent GMA 1 is Danny Krienke, Ochiltree County Director of the North Plains GCD. Krienke was reappointed as the GMA 1 representative to the Panhandle Regional Water Planning Group (PWPG).



Bob Zimmer
NPGCD Board President
GMA 1 Chairman

GMA 1 is one of 16 Groundwater Management Areas throughout the state of Texas that participate in the state groundwater planning process. GMA 1 consists of 18 counties stretching from the northern-most panhandle counties,

south to Oldham and Randall County in the West and Wheeler and Donley County in the East. Four groundwater conservation districts are included, either all or in part, in GMA 1, including: North Plains GCD, Hemphill County Underground Conservation District, Panhandle Groundwater Conservation District and High Plains Underground Water Conservation District.

Zimmer has served as a member of the North Plains GCD Board of Directors for 13 years, holding the positions of secretary, vice-president and president during his time on the board. Zimmer was originally selected as Chairman of the GMA 1 Board of Directors in 2014.

Krienke is a past chairman of GMA 1 and has served as the representative to the PWPG since 2013. Krienke has been a member of the North Plains GCD board of directors for 16 years. He has also served as president of North Plains GCD board of directors. 💧



Danny Krienke
NPGCD Board Secretary
GMA 1 Rep. to RWPG

“3-4-5” Field Days

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irrigation directly to the soil. LEPA applies the irrigation water with drop hoses no more than 18 inches above the soil and is reported to reach application efficiency levels of 95 percent. Both methods reduce wind-loss and evaporation and the side-by-side demonstrations are designed to compare application efficiency.

As in past years, the district held public field days to raise awareness of the demonstrations and promote adoption of water conservation practices. On August 16th the district cooperated with corporate partner, Crop Production Services (CPS), to hold a field day at the North Plains Water Conservation Center (WCC). The district’s presentation focused on the process and objectives of the “3-4-5” project and also highlighted the side-by-side comparison of subsurface drip irrigation and LEPA center pivot irrigation, using the newly installed drip field at the WCC.

On August 31st the district hosted a field day in Perryton that included a visit to the “3-4-5” field of board member and cooperator, Danny Krienke. After the field visit, Chairman of the Texas Water Development Board (TWDB), Bech Bruun, updated the participants on the activities of the TWDB, specifically some of those involving conservation programs in the district. Finally, on September 1st the district presented the final field day of the season in Dallam County, including a visit to the farm of board member and cooperator, Zac Yoder. In addition to the field visit to see and evaluate side-by-side differences in corn irrigated at 3, 4, and 5 GPM, Ed Bynum, PhD., of Texas AgriLife Extension presented information regarding identification and control of mites in corn.

More information regarding the 2016 “3-4-5” project will be available when the final report is published in 2017. 💧

Conservation Learning Center Dedication

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That same year the district purchased the property where the current WCC operates today. Mr. Bowers managed, lived and raised his family in the district for twenty years before moving to Burnet to assume the general manager position at the Central Texas Groundwater Conservation District in 2007. In August 2011, he officially retired. Even after his retirement he served as interim general manager for the Upper Trinity Groundwater Conservation District in Springtown, Texas in 2014.

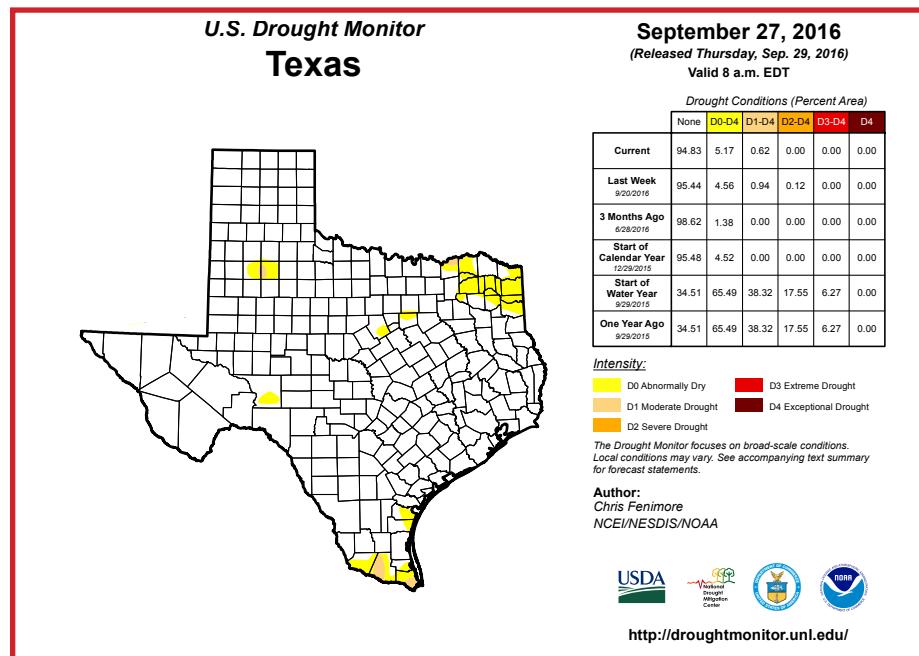
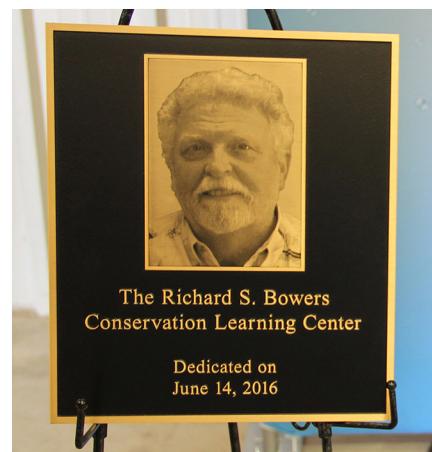


Richard Bowers with Assistant General Manager-Hydrologist, Dale Hallmark and Middle Trinity GCD General Manager, Joe Cooper circa 2003, North Plains Groundwater Conservation District, Dumas, TX.

Richard Bowers served as president of numerous organizations throughout his career including the Texas Water Conservation Association, Texas Alliance of Groundwater Districts, and National Groundwater Management Districts Association, as well as chairing the Tarleton State University Hydrology Advisory Council.

“The district is honored to dedicate the conservation learning center at the North Plains Water Conservation Center to the memory of Richard Bowers. Mr. Bowers was keenly interested in and led the district in establishing its groundwater conservation education programs,” said Bob Zimmer, Board President.

In 2013, the district renamed the entire facility, previously called the North Plains Research Field, and redirected the activities to focus on practical conservation demonstrations. The WCC is a showcase for groundwater conservation technologies and practices relating to agricultural uses, with plans to also include demonstrations of residential conservation practices. During the dedication ceremony, district personnel gave an update on the history of the WCC and its development over the last two years, as well as the plans for the future. 💧



Regional Planning Update

In October, the Groundwater Management Area 1 (GMA 1) Joint Planning Committee (JPC) will consider feedback received during the public comment period for the Desired Future Conditions (DFC) proposed back in April.

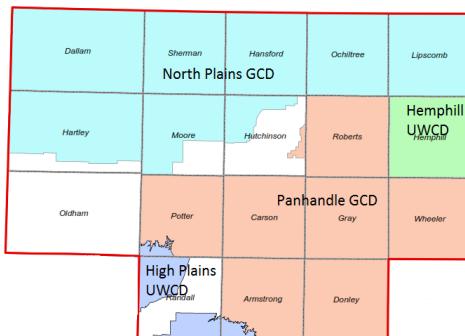
On April 20, 2016, GMA 1 representatives proposed to adopt DFCs for eighteen counties in the Texas Panhandle. A DFC is a quantitative description of the desired condition of the groundwater resources in a management area at one or more specified future times. GMA 1 is one of the sixteen groundwater management areas throughout the state and includes: Hemphill County Underground Water Conservation District, North Plains Groundwater Conservation District, Panhandle Groundwater Conservation District, and part of High Plains Underground Water Conservation District. The Chairman, or the chairman's designee, of each of these four districts comprise the voting membership of the GMA 1. The map below shows the district boundaries within GMA-1.

Texas law requires that every five years, the districts consider groundwater availability models and other data or information for the management area and propose DFCs for adoption for the relevant aquifers within a management area. The DFC adopted for each major aquifer must be incorporated into the State Water Plan through the regional water planning process, incorporated into district management plans, and where appropriate, incorporated into district rules.

Each of the districts received public comments for the 90-day period beginning May 13, 2016 and ending August 15, 2016, on the proposed DFCs.

The district conducted a public hearing concerning the district's intent to adopt proposed DFCs on July 19, 2016.

After considering each district's summary of public feedback and any additional input, the JPC can adopt the DFC or propose a different DFC. Final adoption of a DFC should occur in October 2016, provided that GMA-1 adopts the initial proposal. GMA-1 will prepare an explanatory summary to the TWDB and forward it along with the newly adopted DFCs within sixty days. 💧



Master Irrigator Certification *(Continued from page 1)*

eliminate the uncertainties and accelerate adoption,” said Amosson.

The Master Irrigator Program is designed to incentivize producers to acquire this information and to apply it throughout their operations in a number of ways. First and foremost, the information will be of the highest quality, featuring the best technical experts from the industry.

The technical support does not end at the end of class. Participants will have technical in-season consultation available to make sure implementation is effective. And last but not least, participants who complete the course and receive their Master Irrigator Certification will have priority access to the North Plains GCD EQIP funding for EQIP eligible practices.

Enrollment for the Master Irrigator training program is now open for the 2017 Season.

For more information about the Master Irrigator program contact Kirk Welch at kwelch@northplainsgcd.org or go online to <http://northplainsgcd.org/conservation-programs-education/community-education-2/master-irrigator/>. For more information on the EQIP program, contact your local NRCS office or access their website at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/tx/programs/farmbill/>. 💧



During Master Irrigator Session 4, John Gibson, Crop Quest Precision Ag Specialist, explains the importance of “ground truthing” information gathered through the use of unmanned aerial vehicles (UAVs or drones) or other remote sensing tools.

Meter Grant Expiring, More Funds Available

Beginning in 2014, the North Plains Groundwater Conservation District applied for and received a financial grant from the Texas Water Development Board (TWDB), which provides for a reimbursement of one-half of the purchase price of flow meters to be installed on agriculture irrigation wells or pivots.

The district's meter reimbursement program will provide a cost share for meters through 2021. The contracts with the TWDB provide the district with up to \$1.7 million dollars in meter reimbursement funds.

As of September 2016, the district has registered 291 properties into the program, cost shared 567 meters and reimbursed \$479,416.63 to area producers. The first meter fund contract expires December 2016 so please register soon.

The district does anticipate continuing the meter reimbursement program utilizing additional TWDB fund contracts. If you miss this December deadline for reimbursement there will be opportunities to re-register under the newer contracts.

District area agricultural producers may register for the funds by completing a district meter reimbursement program application at northplainsgcd.org. Eligible expenses for reimbursement are restricted to half the purchase price of meters that are installed on agricultural irrigation wells or pivots. Installation costs, other equipment costs, labor costs and meters for non-irrigation purposes are not eligible for reimbursement.

The applicant must agree to share with the district the number of acres of each crop grown annually for a period of approximately 5 years. Applicants who lease land must furnish the district a signed agreement (district provided) from the owner stating that if the lease is no longer in effect the owner agrees to continue the program for the duration of the program's reporting period.

For additional information or to begin registration, please contact Shari Stanford (ssanford@northplainsgcd.org) or Dale Hallmark (dhallmark@northplainsgcd.org) at the district office at 603 East First Street, Dumas, Texas, or call 806-935-6401. 💧

NPGCD Receives TWDB Grant for Integrated Irrigation Software Solution

The North Plains Groundwater Conservation District (district) received a \$15,000 grant from the Texas Water Development Board (TWDB) for development and promotion of an enhanced irrigation software solution.

The project lead is Charles Hillyer, Ph.D, Assistant Professor and Extension Specialist with Texas A&M AgriLife Extension in Amarillo. The new software will be a fully integrated system that collects soil moisture measurements, weather station data, weather forecasts, and water use data from irrigated fields. The system will incorporate this information into a single interface and provide functionality necessary to perform efficient irrigation management.

“The idea is to have a dashboard that brings all the data together for the irrigator and presents it in a way that the grower can assimilate and interpret the information quickly to make good irrigation decisions,” said Kirk Welch, assistant general manager outreach. “The application could even have the capability to analyze and compare the data and make irrigation recommendations.”

Field testing will be conducted at the district's North Plains Water Conservation Center in Etter. The development and promotion of the system will be integrated with the district's Master Irrigator program as another tool to bridge the gap from demonstration to adoption of conservation strategies. The district anticipates a streamlining of the process of irrigation management, leading to increased adoption of the technologies and ultimately enhanced water conservation. 💧

Conservation education programs available for K-12 by request on a first come, first served basis!!

Contact Alyssa at aholguin@northplainsgcd.org to schedule yours today!

¡Pura Vida! A New Conservation Outreach Assistant at NPGCD

A Dumas native returns home to join the North Plains Groundwater Team as the Conservation Outreach Assistant.

Alyssa Palser Holguin's educational background coupled with previous work experience enables her to further connect North Plains Groundwater Conservation District (District) and the community in various ways.

Holguin graduated Dumas High School in 2009 with 3 years of Spanish and 27 college credit hours. She earned her Bachelor's Degree in Mass Communications with a minor in Spanish at Wayland Baptist University in two-and-a-half years. In this timeframe she developed her journalistic writing skills by reporting for the Plainview Daily Herald, representing Wayland's newspaper as editor, and assisting Wayland's public relations office all at the same time.

"I learned to be extremely organized while taking twenty hours of schooling and working three jobs. It taught me perseverance and dedication," Holguin said. Upon graduating from Wayland Baptist University, Holguin moved to Canyon and began working for West Texas A&M University (WTAMU) as the Orientation Coordinator, and received a Master's Degree in Communications. Implementing Spanish Orientations for the almost 25% Hispanic population at WTAMU is one of her proudest accomplishments. Holguin planned and coordinated events for about

3000 people at six orientations during the summers, along with helping plan the social event, Buff Branding, for the 600 incoming freshmen each fall.

"I also oversaw 25 student workers at WTAMU where we learned the value of teachable moments. I learned to listen mostly and only give advice when specifically asked. I loved being their cheerleader while they figured out life. To witness courage and self-confidence radiate from those students, it was contagious and unstoppable."



After WTAMU, Holguin moved back to Dumas because she and high school sweetheart and Dumas resident, Edward Holguin, were soon to be married. For the next two years, Holguin commuted from Dumas. First to Borger as sales assistant of Provenance Consulting, LLC, and then to Dalhart where she worked in the technology department for the school district.

Besides marrying in the Dominican Republic in May 2015, Holguin has traveled to Germany, Costa Rica, and Canada. She has an appreciation for other cultures and a sincere desire to learn how they "do life". "¡Pura Vida!" is a Spanish saying Holguin picked up in Costa Rica. Translated literally, it means "pure

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life", but in Spanish it's used on a deeper level to encourage others to appreciate their lives. "Enjoy life... all's good."

Holguin is already building a more interactive presence on social media by first generating a larger following, and she is gathering data to help evaluate current programs to locate areas of growth. However, Holguin most appreciates the opportunity to be a team player.

"I hope to bring a fresh perspective and new ideas to expand our outreach. I feel that my experiences have equipped me for this role, and I am humbled to work for such an honorable organization where I already feel at home," said Holguin. 💧

New Interactive Map Makes Well Data Available with a Click

The district is now providing an online, interactive map that makes well log information easily available online. District agricultural engineer, Paul Sigle, is the staff member responsible for the development of the interactive map. "The map provides an easier way for local producers to see and collect information," said Sigle.

Before the development of the interactive map, a stakeholder would call the district's office to request well logs that an employee would then search for in a database. "Now, stakeholders can visually locate the well on the map and simply click on it to access the historical data relating to that well."

There are approximately 15,500 wells on the interactive map, and it's growing every few days based on the drilling of new wells. The map is automatically updated in real time. When a new well is added to the system for a permit, it automatically becomes available on the map. Refresh the page, and there could possibly be a new well on the map.

Currently, there are two well database maps that include the district's and Texas Water Development Board's wells, and three hydrology maps that include depth to water, average decline, and saturated thickness. Also, there are two maps that outline the major (Ogallala) and minor (Rita Blanca and Santa Rosa) aquifers in the area and a map for the district's monitor wells.

While the map already has many useful features, Sigle plans to add more functionality to the interactive map. 💧

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