

North Plains Water News



A Publication of the NORTH PLAINS GROUNDWATER CONSERVATION DISTRICT

VOLUME 57, NO. 3 "Maintaining our way of life through conservation, protection, and preservation of our groundwater resources."

Fall 2011

2011 "200-12 Project" Bookend to 2010

The 2010 season was the first for the district's "200-12 Reduced Irrigation on Corn Demonstrations", and to most observers the conditions appeared to be about as good as they could be for success. The "200-12



Low Energy Precision Application (LEPA) and Low Elevation Spray Application (LESA) sprinklers contributed to healthy corn on reduced water, even during the drought conditions of 2011.

Project" was designed to show that it

could be possible and profitable, with average rainfall, to use no more than 12 inches of irrigation to grow 200 bushels of corn in the northern Panhandle. Most of the district received higher than normal rainfall amounts during the 2010 season, and all three of the demonstration fields were able to keep their applied irrigation below the goal of 12 inches. Two of the three actually realized higher return on investment than they would have using traditional farming practices for the fields. The field that lost money still yielded valuable data about irrigation water management in extreme low water conditions. All in all, participants were pleased with the first year of the demonstrations.

However, 2011 was a new year. Positive developments for 2011 included the addition of six more demonstration fields, bringing the total number of sites to nine, spread from east to west across the district. In addition, the Texas Water Development Board (TWDB) accepted the district's invitation to financially participate in the demonstrations. The TWDB is assisting the projects with approximately \$250,000 in funding over

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2011 Production Reporting Schedule

A schedule for the 2011 production reporting process has been set by the district staff. The 2011 Annual Production Reports are scheduled to be mailed on Friday, December 9th. Producers should receive the reports by the target date of December 15th. Anyone who does not receive their 2011 Annual Production Reports by December 20th should contact the district office. The reports are due in the district office by close of business on Thursday, March 1, 2012.

The district will send a special notice to the producers who failed to file their 2010 Annual Production Reports on time. The notice will remind

the producers that if the 2011 Annual Production Reports are filed by close of business on Monday, January 16, 2012, the late filing fee charged for 2010 will be refunded in full.

The district will again be participating in the Crop Production Clinics sponsored by Pioneer Hi-Bred. The 2012 Texas & Oklahoma Panhandle Crop Production Clinics will be held in 3 towns in our district. The dates and locations for the clinics are: January 9th – Dumas, January 10th – Dalhart, and January 12th – 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.

Conservation Initiative Receives Federal Funding

The North Plains Groundwater Conservation District has joined forces with growers, researchers, irrigation engineers and the USDA-Natural Resources Conservation Service for demonstrations of agricultural water conservation that can save water in Texas, while extending the viability of the area's agricultural economy. The Texas High Plains Initiative for Strategic and Innovative Irrigation Management and Conservation (the Initiative) has been awarded a \$499,848 Conservation Innovation Grant (CIG) to perform the demonstrations over the next three years. The Initiative is designed to demonstrate strategic irrigation and crop system management technologies and practices that result in water savings across the region. Many of the practices will be applicable nationwide in regions facing

"When we began talking about our individual projects, we saw that we were employing some different strategies and technologies, but the projects actually have the same basic objective," said Bob Zimmer, president of the North Plains GCD board of directors. "We decided there are advantages to joining forces to demonstrate irrigation water conservation methods." The grant will be split between the two projects, providing just under a quarter of a million dollars for each.

"The High Plains Underground Water Conservation District is pleased to be a partner in this initiative. Projects, such as this, have been a mainstay of the district during its 60-year history. It is important to continue research to develop best management practices to allow growers to use less water,



The Conservation Innovation Grant will provide almost \$250,000 for the district's "200-12 Project." Harold Grall explained the protocol for his demonstration plot at one of the August field visits.

similar resource concerns.

The Initiative is a collaborative effort between the USDA-NRCS and North Plains GCD, High Plains Underground Water Conservation District, Texas Alliance for Water Conservation (TAWC) and Texas Tech University. Until this joint application for funding, the member organizations of the Initiative were working on two separate irrigation efficiency demonstrations, the TAWC in Hale and Floyd counties in the south plains, and North Plains GCD in the northern panhandle counties.

maintain crop yields, and continue the economic viability of the Texas High Plains region," said Robert Meyer of Canyon, High Plains UWCD board president. High Plains UWCD is a critical supporter of the TAWC project.

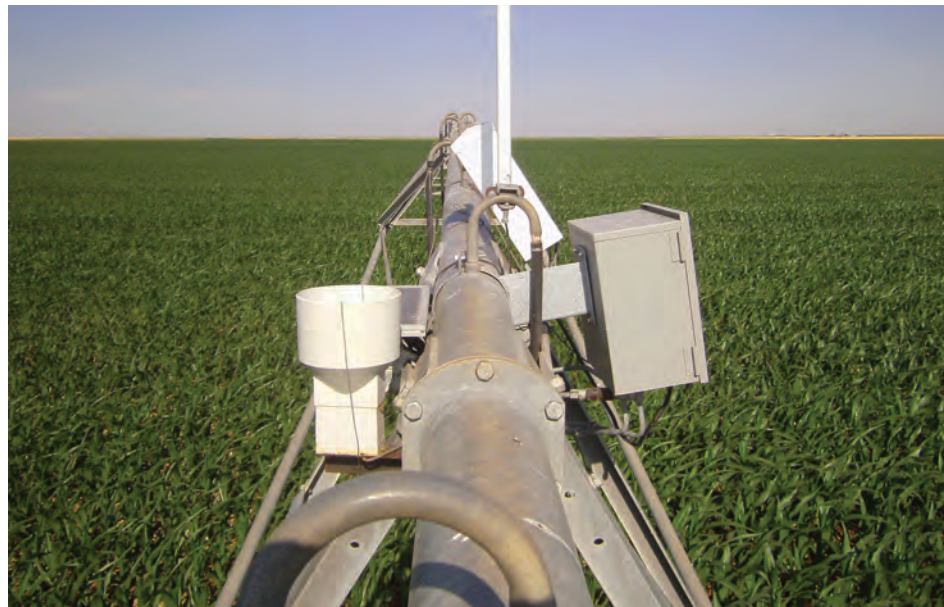
The TAWC has been conducting demonstrations since 2005 with the support of their funding agency, the Texas Water Development Board (TWDB). The TWDB has also joined in the North Plains GCD project in its second year by providing funding for

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2011 "200-12 Project" Bookend to 2010

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the next three years. The district was also successful in joining forces with the Texas Alliance for Water Conservation, Texas Tech University and High Plains Underground Water Conservation District to gain federal funding from the United States Department of Agriculture-Natural Resource Conservation Service through the Conservation Innovation Grant program.



Pivot monitoring and control systems like this one allowed farmers to make the most of the irrigation applied.

While in many ways the forecast was sunny for the 2011 "200-12 Project", we all know that it's possible to have too much of a good thing, even sunshine. 2011 turned out to be one of those times. The fall of 2010 through the fall of 2011 was the driest one-year period on record for the region. The unforgiving conditions have wreaked havoc on all aspects of the agriculture industry in Texas, causing losses projected at over \$5 billion statewide.

The farmer cooperators in the district's "200-12 Project" felt the heat of the 2011 season just like everyone else trying to grow a crop. The combination of low moisture, high heat and high winds in June especially, cooked the corn crop in many fields. Preliminary results tell the tale with six of the nine original cooperators either cutting their corn for silage or abandoning the field all together to divert the water to a more promising crop. Of the three remaining in the project, none were able to keep their irrigation below 12 inches. The resource management system that was designed to save water in a normal year was used to make the most of the water available during this drought. Irrigation on the remaining sites ranged from 18.8-33 inches. Presentation of the final

results of this year's "200-12 Project" is planned for later in 2012.

The cooperators that started this project last year are not surprised by what's happened with the weather this year. As board members of the North Plains Groundwater Conservation District and long-time corn growers, they are students of the area's weather patterns. They knew there would be dry years and the demonstrations would

have to account for those. "That's why we planned this project for five years," said board member/cooperator Phil Haaland. "We knew we would have one good year, one bad one, and few average years." Another board member/cooperator, Harold Grall said this is the kind of year when the "200-12 Project" can prove its worth. "Last year, people could say we did well because of all the rainfall, but if we can come out with something positive this year, I think we'll really get people's attention."

The value of the demonstrations is ultimately based on new levels of efficiency that can be attained, not necessarily on using a specific amount of irrigation water. Conserving water will always be a priority to the district, and pumping only the groundwater necessary to meet the crop's needs will always be good conservation and good business. However, in 2011, the crops' need for groundwater was at historically high levels, requiring a different perspective of successful water management. While the goal of 200 bushels of corn on 12 inches of applied irrigation was proven to be within reach in 2010, cooperators were just happy to save their crops in 2011. Now, they're hoping and praying for more rain in 2012.

WaterWise Conservation Education Results

The district is ramping up for the second year to provide the WaterWise Conservation Education Program for fifth graders. 2011-2012 will be the second year that the program is offered across the district. "There were 832 teachers and students who participated in the first year of the district-wide program and the reception and results have been extremely positive," said Kirk Welch, district assistant general manager for outreach.

- 100% of participating teachers indicated that parents supported the program
- 100% of participating teachers indicated they would recommend this program to other colleagues.
- 100% of participating teachers indicated they would conduct this program again.

"I would recommend this program to any school," said Ann Green, fifth grade teacher at Hartley Elementary 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. 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. A few samples of questions asked are below.

- Did you install the new High-Efficiency Showerhead? Yes - 71%
- Did you work with your family on this Program? Yes - 81%
- Did your family change the way they use water? Yes - 77%

The average student answered 6.1 WaterWise questions correctly prior to being involved in the program, and then improved to answer 7.4 questions correctly following participation.

As part of the program, parents/guardians and students installed resource conservation tools in their homes. They also measured the pre-existing devices to calculate savings that they generated. Using the family habits collected from the home survey as the basis for this calculation, eight hundred thirty two (832) 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	Lifetime
7,924,466	56,672,030 gallons
27,047	203,568 therms
341,859	2,583,024 kWh

This article was compiled from excerpts from the 2010-2011 North Plains GCD WaterWise Program Summary Report with permission from Resource Action Programs.



Voice of America reporter, Steve Baragona and videographer, Adam Greenbaum interview board member and corn grower, Harold Grall during their visit to the Panhandle to cover the 2011 drought. The complete story can be seen online at <http://bit.ly/sio8XC>.

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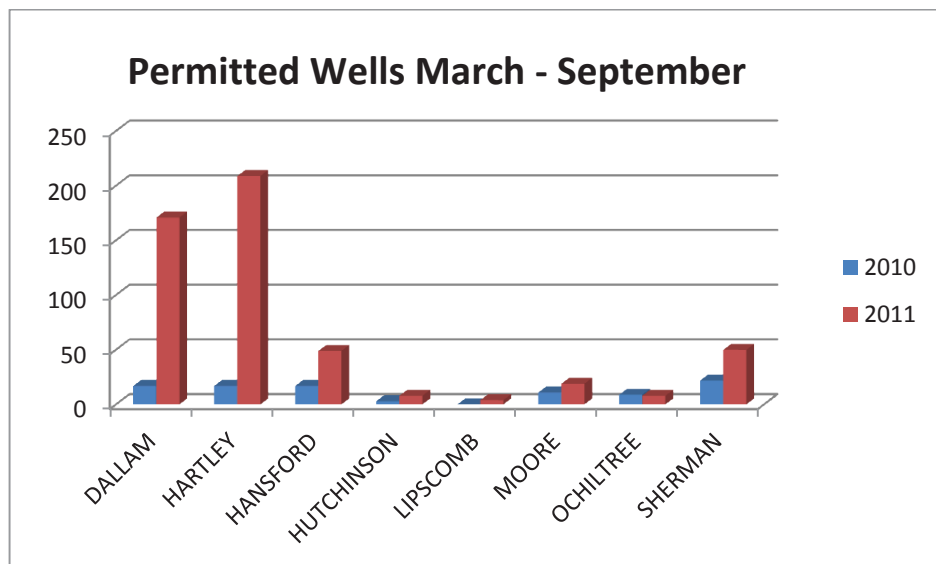
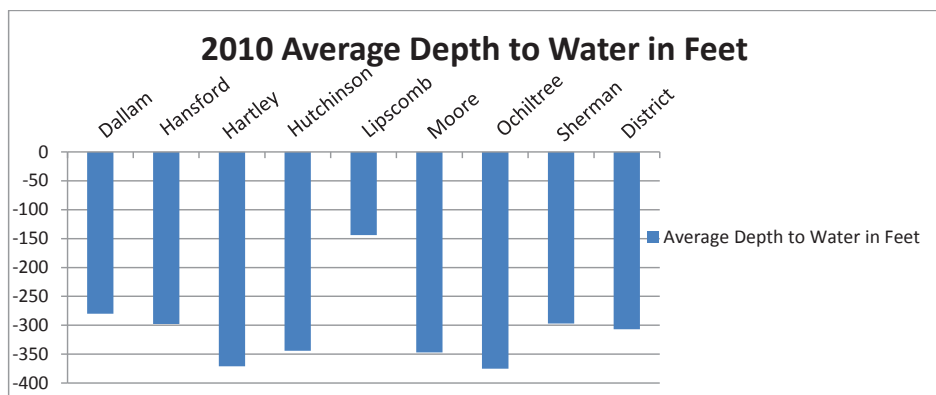
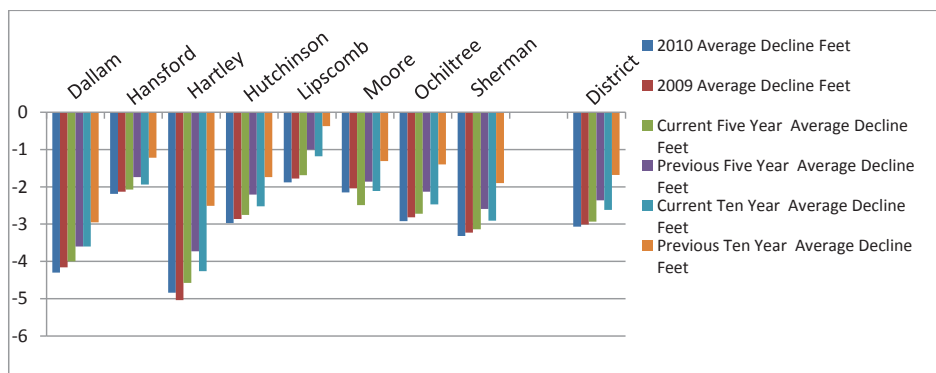
2010 Water Levels Completed

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 430 water-level monitor wells. These monitor wells are measured annually beginning in January, after the majority of the pumping is completed. 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 35 dedicated monitor wells and installed monitoring equipment in 25 of those. These continuous measurements create a valuable record of the ongoing changes in water levels. The data from the 2010 season has been gathered and tabulated and the results are presented in the following table and illustrations.

For more information please contact the district at 806-935-6401. You can find the 2010-11 Hydrology Report at www.northplainsgcd.org/downloads.

Average Declines by County						
County	2010 Average	2009 Average	Current Five	Previous Five	Current Ten	Previous Ten
	Decline Feet	Decline Feet	Year Average Decline Feet	Year Average Decline Feet	Year Average Decline Feet	Year Average Decline Feet
Dallam	-4.30	-4.16	-4.00	-3.60	-3.60	-2.95
Hansford	-2.19	-2.13	-2.07	-1.74	-1.94	-1.22
Hartley	-4.84	-5.04	-4.58	-3.73	-4.26	-2.51
Hutchinson	-2.97	-2.86	-2.75	-2.21	-2.52	-1.74
Lipscomb	-1.88	-1.78	-1.69	-1.00	-1.18	-0.37
Moore	-2.15	-2.04	-2.49	-1.86	-2.11	-1.31
Ochiltree	-2.92	-2.82	-2.72	-2.13	-2.47	-1.40
Sherman	-3.32	-3.23	-3.14	-2.59	-2.91	-1.90
District	-3.07	-3.01	-2.93	-2.36	-2.62	-1.68



Plan Now for 1.5 Acre Foot Allowable Production in Effect for 2012

Annual allowable production for all producers of groundwater in the district will change from the 1.75 acre-feet/acre of groundwater rights (21 inches) allowed in 2011 to 1.5 acre-feet/acre of groundwater rights (18 inches) beginning January 1, 2012. 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 either of the past two years may use up to 6 inches of the GCR during 2012. The allowable production for 2012 combined with maximum GCR of 6 inches equates to 2 acre feet/acre available for production in 2012.

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 two years. The board is currently proposing an extension that would allow the GCR

to be available for up to 5 years. A maximum of 6 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 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 3 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, this 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 2012, call the district at 806-935-6401.

How A New Logo Helps Save Water

The board has adopted the new logo that you see here to further the objective of communicating with our communities.

One of the first steps in helping people know us, is helping them recognize us. And one of the main tools in establishing recognition is a consistent visual representation. The "golden arches" and "swoosh" are visuals that we all recognize and immediately associate with their companies. Most of you probably know the companies with only a verbal description of the logos and without even seeing them. That's a strong visual representation, and admittedly one made stronger by the gazillion dollars in advertising spent each year to "brand" the images into your brain.

That's why the district has taken this major step toward branding North Plains GCD, by creating the new North Plains GCD logo. The new logo was developed over many hours, with art direction and design by GGraham Design of Amarillo. It is

a professional, visual representation of the district. Since the district does not have the bottomless advertising budget of McDonald's or Nike, targeted, consistent exposure will be used to establish the logo's association with the district.

A closer consideration of the logo will give some insight into some important characteristics of the design. The



name of the district is incorporated in the design in a clear, prominent manner. The shades of blue obviously communicate that water is our business. The horizontal curved lines imply the layers, or strata, of sand, gravel and clay that hold our groundwater captive. The vertical line represents a well. Finally, this intentionally designed logo communicates the district's commitment to professionalism and excellence.

Before long you will start to see the new logo on all things related to North Plains GCD. Please feel free to give us a call or email to let us know what you think.

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Water Conservation Artwork Contest Winners Announced

Byanca Varela, daughter of Javier and Lydia Varela 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.



Byanca's artwork titled "Even Something as Small as a Drop of Water Has an Impact!" features a smiling water drop with a rainbow background. Byanca received a certificate of recognition, a \$50 cash prize, and her artwork will be featured on the cover of the 2012 North Plains Groundwater Conservation District Water Conservation Calendar. Byanca was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman last school year when the entries were submitted. The calendars are free to the public.

Other winners in this year's contest are:

K.D. McCloy – artwork titled "Don't Waste Water by Throwing it Down the Drain". KD is the son of Marty and Molly McCloy and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Hilda Salas – artwork titled "Please Save Water". Hilda is the daughter of Hilda Salas and Martin Salcedo and was in Mrs. Spillers' class at Dumas Intermediate School.

Yolitzin Hernandez – artwork titled "If You Want to Have Water in the Future". Yolitzin is the daughter of Carla and Everado Flores and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Skyler Olivas – artwork titled "Be Water Wise". Skyler is the daughter of Princely Olivas and Ramon Castillo and was in Mrs. Spillers' class at Dumas Intermediate School.

Brandi Cogdill – artwork titled "Save Our Little Creatures". Brandi is the daughter of Ronnie and Sam Cogdill and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Caden Riggins – artwork titled "Water Conservation is Cool". Caden is the son of Chad and Mendy Riggins and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Ashley Quiroz – artwork titled "Don't Leave Water Dripping". Ashley is the daughter of Maria Castillo and Armando Quiroz and was in Mrs. Singer's class at Dumas Intermediate School.

Brizeth Peña – artwork titled "A Happy Shower". Brizeth is the daughter of Refugio and Isabel Peña and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Lauren Wilborn – artwork titled "Don't Litter in the Water". Lauren is the daughter of Chad and Melinda Roberts and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Bailey Baker – artwork titled "Save the H2O and You'll be a Star". Bailey is the daughter of Bart and Rhonda Baker and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

Addison Boggs – artwork titled "Stop Water Dripping". Addison is the daughter of Eric and Holly Boggs and was in Mrs. Singer's class at Dumas Intermediate School.

Elisa Briseño – artwork titled "Save Water. Don't Waste it!". Elisa is the daughter of Jesus and Sandra Briseño and was in Mr. Wilkerson's class at Gus Birdwell Elementary School in Spearman.

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.

Conservation Initiative Receives Federal Funding

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three years beginning in 2011. "The drought conditions this year have driven home the importance of conservation to our region and our state," said Rick Kellison, Project Director for the TAWC. "Funding of programs like this will help us continue to address these pressing concerns."

The grant is one of 52 awarded this year across the nation by the USDA-NRCS, the lead agency in conservation planning and assistance to address conservation of all natural resources. This is the only CIG awarded this year to an exclusively, Texas-based project. "These grants will help some of America's top agricultural and conservation institutions, foundations and businesses develop unique approaches to enhancing and protecting natural resources on agricultural land. Their creativity and problem solving will benefit conservation-minded farmers and ranchers, and everyone who relies upon our nation's natural resources for food and fiber," said NRCS Chief, Dave White.

Other important partners involved in the Initiative include; Texas AgriLife Extension and USDA, Agricultural Research Service.