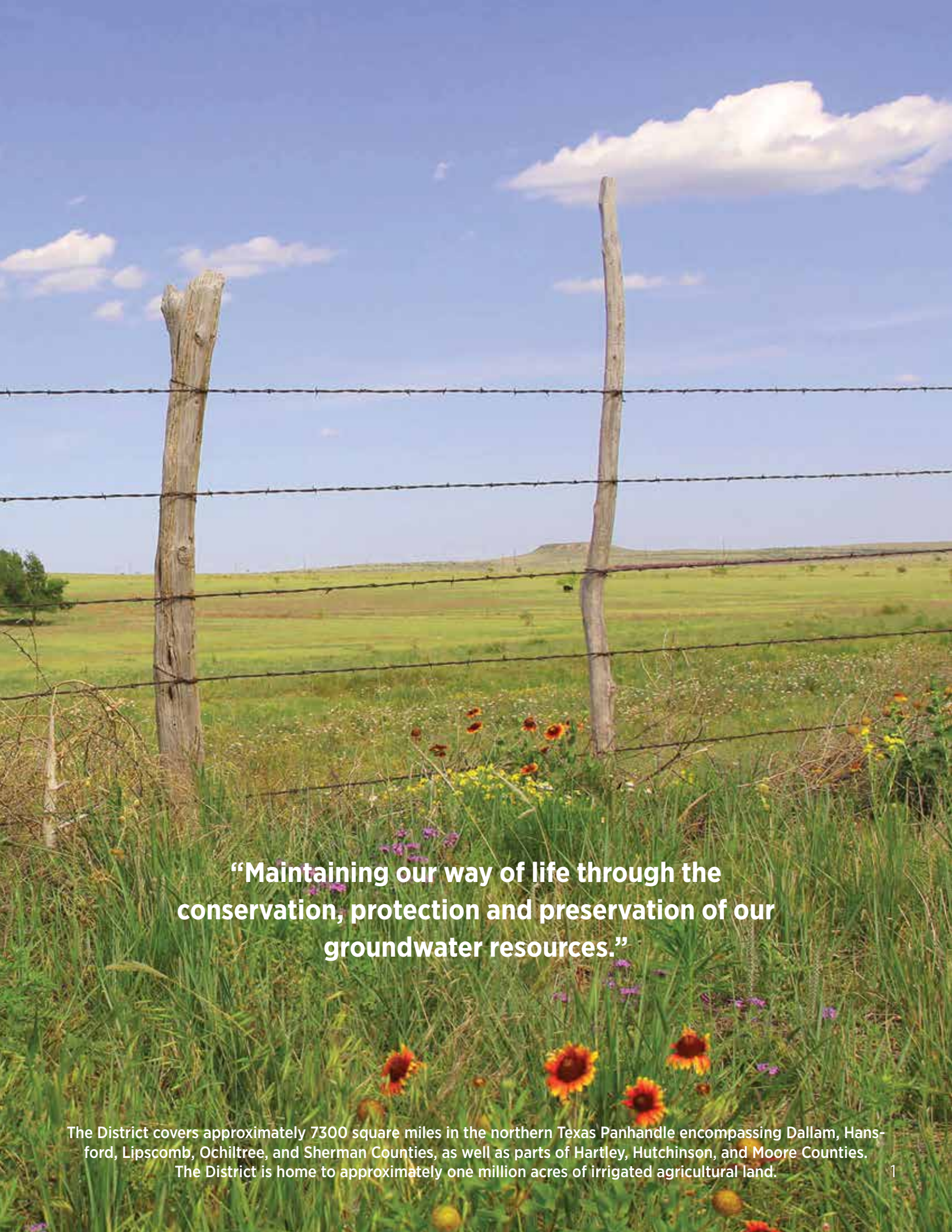
[2015 ANNUAL REPORT]



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

The District covers approximately 7300 square miles in the northern Texas Panhandle encompassing Dallam, Hansford, Lipscomb, Ochiltree, and Sherman Counties, as well as parts of Hartley, Hutchinson, and Moore Counties. The District is home to approximately one million acres of irrigated agricultural land.

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MANAGEMENT GOALS

BOARD OF DIRECTORS

Bob Zimmer,
President

Hansford / Hutchinson County

Harold Grall,
Vice-President
Moore County

Danny Krienke,
Secretary

Ochiltree County

Gene Born,
Director

Lipscomb County

Justin Crownover,
Director

Sherman County

Mark Howard,
Director

Hartley County

Zac Yoder,
Director

Dallam County

LETTER FROM THE PRESIDENT

Dear Stakeholders,

In 2015, the North Plains Groundwater Conservation District celebrated the 60th anniversary of its creation by voters in Hartley, Moore, Sherman, Hansford, Hutchinson, and Ochiltree Counties, for the protection and conservation of groundwater resources north of the Canadian River. Later, Lipscomb and Dallam Counties joined the District. Through the years the District has been a leader in groundwater conservation in Texas. Several years ago the District's board adopted a mission statement, "Maintaining our way of life through the conservation, protection and preservation of our groundwater resources." The District completed its rule making process to implement its Management Plan during the year. The Board adopted rules that balanced the differences and needs of the current and future stakeholders across the District. The District updated its spacing and density requirements, simplified the permitting process and provided a mechanism for the District to address the Ogallala and Dockum aquifers' desired future conditions (DFC). A DFC is a quantitative description of the desired condition of an aquifer in a management area in fifty years. The District is one of four districts in the 18 counties of Groundwater Management Area 1. I was privileged to be elected by the member districts to serve as the President of GMA 1. Additionally, board member, Daniel Krienke was elected to serve as the GMA 1 representative on the 21 county Panhandle Regional Water Planning Committee.

The District completed its first year in a new series of water conservation demonstrations titled "3-4-5 Gallon Production Maximization (GPM) Corn Demonstration Project". The "3-4-5 GPM" project continues the District's agriculture conservation demonstration series, highlighting farming technologies and practices that can sustain irrigated agriculture in the northern Texas Panhandle. The three-year project is based on actual on-farm water availability within the District. Water availability may vary widely across the District, depending on multiple conditions ranging from well pumping plant efficiency to aquifer capacity for the amount of land irrigated. Based on current on-farm conditions, the "3-4-5 GPM" project demonstrates best management practices and technologies for growing crops using 3 gallons per minute per acre (gpm/ac), 4 gpm/ac and 5 gpm/ac of irrigation water.

In 2015, the North Plains Water Conservation Center (WCC) operated for the first time as a public/private partnership between the District, Crop Production Services (CPS) and others to demonstrate on-farm agriculture water conservation. In its first year, the District reconfigured the facility in time

for its partner, CPS, to grow crops that demonstrated different corn varieties and their water needs. The District worked with CPS to use the WCC as one of its demonstration sites for the "3-4-5 GPM" project.

In 2015, the District reimbursed almost $300,000 to agriculture irrigation owners through its meter cost share program with the Texas Water Development Board (TWDB). The District's partnership with the TWDB for meter reimbursement is scheduled through 2021. The District received approximately $32,000 for cost reimbursements related to the "3-4-5 GPM" project from the TWDB, and $46,000 in reimbursement from the Natural Resources Conservation Service (NRCS) related to the District's completed 200-12 Project. The District entered into a new $45,000 financial agreement with the NRCS for agriculture conservation education, and the NRCS agreed to assist the District in installing drip irrigation at the WCC.

Regretfully, on November 14, 2015, Richard S. Bowers, the District's previous General Manager, passed away after a distinguished career dedicated to public service and leadership in water conservation. I first met Richard almost 30 years ago. He encouraged me to become active in promoting groundwater conservation as a District Committee Member. The District hired Richard as its General Manager in 1987. That same year the District purchased the property where the WCC operates today. Richard managed the District, and lived and raised his family in Dumas for twenty years. I will miss him. Since his passing, the District has dedicated the classroom and meeting facility at the WCC in his honor.

In closing, I am proud of the District's conservation education programs and the relationships and partnerships the District has developed with local cooperators, state and federal agencies, and local stakeholders. This cooperation has allowed a level of excellence in water conservation that will help preserve this precious groundwater resource for our children and grandchildren, for long after we are gone.

Respectfully,

Bob B Zimmer

Bob Zimmer, Director Hansford-Hutchinson Counties, North Plains Groundwater Conservation District
President 2014-2016
npgcd1@gmail.com

The District's Progress in Achieving Management Goals

With the passing of Senate Bill 1 in 1997, the 75th Texas Legislature required groundwater conservation districts to design management plans to meet specific strategic goals as outlined in the legislation. Senate Bill 1 created a statewide groundwater management and planning process, while preserving local control over the process through the districts. The districts are required to examine and revise their management plan at least every five years. This annual report is intended to give an annual update on North Plains Groundwater Conservation District's progress on each of the strategic goals included in its management plan.

This report will be presented to the District's Board of Directors in a timely manner, and then made available to the public. A copy of the most current annual report will be available for public review on the District website at www.northplainsgcd.org and at the District office.

MANAGEMENT GOALS

Providing for the Most Efficient Use of Groundwater (31TAC §356.5(A)(1))

A.1. Management Objective:

Calculate total annual groundwater withdrawals through water use reporting by all producing water right owners that have a well capable of producing more than 25,000 gallons of groundwater a day.

A.1. Performance Standards:

Annually the District will collect production reports on all properties containing non-exempt wells and calculate annual groundwater withdrawals for the District. A summary will be presented to the Board of Directors each year.

Groundwater Production by County 2007-2015 (Table 1)

COUNTY	2007	2008	2009	2010	2011	2012	2013	2014	2015
Dallam	268,700	313,500	317,500	302,600	374,800	372,000	399,300	393,700	297,000
Hansford	106,900	142,700	152,700	130,000	235,000	218,800	202,000	211,700	148,800
Hartley	312,500	364,600	387,400	401,600	519,700	458,700	459,000	442,100	332,700
Hutchinson	35,000	52,900	53,900	42,100	73,800	72,300	69,800	74,000	57,700
Lipscomb	32,800	30,900	30,300	33,900	52,100	55,600	42,600	48,800	39,400
Moore	148,200	191,500	200,300	178,400	271,700	234,700	228,300	210,000	156,700
Ochiltree	53,700	75,600	65,900	62,300	114,400	109,300	98,300	106,300	77,400
Sherman	220,600	275,200	285,600	261,700	407,300	348,100	346,700	361,400	251,700
Total	1,178,100	1,446,500	1,493,200	1,412,200	2,048,500	1,869,200	1,845,700	1,847,700	1,361,100

**Production volume shown in acre/feet.*

A.2. Management Objective:

Provide support through the District's North Plains Research Field (North Plains Water Conservation Center) to promote research into drought tolerant crops, efficient water management strategies and other research promoting water use efficiencies.

A.2. Performance Standards:

Annually the District will summarize its activities at the North Plains Research Field (North Plains Water Conservation Center) to be presented to the Board of Directors.

In 2015, the District completed installation of two new irrigation pivots and upgraded the pumping plants at the two irrigation wells at the North Plains Water Conservation Center (WCC). The equipment was funded by a TWDB low interest loan. The District contracted with Stan Spain of Crop Production Services (CPS) to work with Professional Water Management Associates to design and install approximately 40 acres of sub-surface drip irrigation between the two pivots. The drip irrigation design called for equipment standards consistent with NRCS guidelines, which also required setting aside some previously irrigated acres for development as a cover crop.

The District worked with Stan Spain and CPS to demonstrate graduated irrigation regimens of 3, 4, and 5 gallons per minute pumping capacity, as part of the next phase of water conservation demonstrations. CPS provided various plant populations and multiple crops and crop rotations in their demonstrations at the field, including corn and wheat. These plans are in line with the water conservation focus that the board desires for the WCC.

CPS is the largest global agricultural retailer, providing growers across North America, South America and Australia with top quality crop input products and services. CPS is also a leading wholesale producer and distributor of crop nutrients, with operations strategically located to supply key global markets. Agrium, the parent company of CPS, has over nine million tons of nutrient production capacities across all three macro nutrients. They are the world's fourth largest nitrogen producer, as well as a major producer of potash and phosphate. Crop Production Services is Agrium's retail unit, supplying crop protection products, crop nutrients, seed, services and other products directly to customers through close to 1500 retail locations in the U.S., Argentina, Chile, Uruguay, Brazil, Australia and Canada.

In addition to the agriculture conservation demonstrations, CPS and the District will maintain the WCC as a showcase for a variety of conservation practices and innovations.

Controlling and Preventing the Waste of Groundwater (31TAC §356.5(A)(1)(B))

B.1. Management Objective:

Control and prevent the waste of groundwater as defined by the Texas Water Code through the enforcement of District "Waste" rules.

B.1. Performance Standards:

Annually the District will summarize enforcement of "Waste" rule violations and report to the Board of Directors.

Waste rule violations in 2015 (Table 2)

Waste Violation Report	Description	Action	Resolution
0	N/A	N/A	N/A

Controlling And Preventing Subsidence (31TAC §356.5(A)(1)(C))

Due to the depth of water and the nature of the geology of the aquifer within the District, subsidence is unlikely and the District's Board of Directors, upon recommendation from the staff, has determined that this goal is not applicable to the District.

Conjunctive Surface Water Management Issues (31TAC §356.5(A)(1)(D))

Following notice and hearing, the District coordinates the development of the management plan with surface water management entities as required by 31 TAC §356.6(a)(4). Documentation regarding this coordination effort is located in Appendix K of the District's management plan. The District also coordinates the development of the plan with the Panhandle Regional Water Planning Group.

D. 1. Management Objective:

Each year, the District will participate in the regional planning process by attending at least 75 percent of the Region A – Panhandle Regional Water Planning Group meetings to encourage the development of surface water supplies to meet the needs of water user groups in the District.

D. 1. Performance Standard:

The summary of attendance of a District representative at Region A - Panhandle Regional Water Planning Group meetings will be reported to the District Board of Directors.

2015 Panhandle Regional Water Planning Group Meetings

February 17, 2015 - General Manager, Steve Walthour attended on behalf of the District.

April 20, 2015 - General Manager, Steve Walthour attended on behalf of the District and Director, Danny Krienke, attended as Groundwater Management Area 1 Representative. Assistant General Manager for Science and Tech, Dale Hallmark, also attended this meeting.

June 22, 2015 - General Manager, Steve Walthour in attendance on behalf of the District (Initially Prepared 2016 Panhandle Regional Water Plan Hearing for Public Comment).

November 1, 2015 – General Manager, Steve Walthour in attendance on behalf of the District and Assistant General Manager for Science and Tech, Dale Hallmark, also attended this meeting.

Natural Resource Issues That Impact the Use and Availability of Groundwater and Which Are Impacted By the Use of Groundwater (31TAC §356.5(A)(1)(E))

The District has determined that the current natural resource issues that may impact the use and availability of groundwater within the District are water quality issues and declining water tables.

E.1. Management Objective:

Monitor aquifer characteristics that impact the use and availability of groundwater and which are impacted by the use of groundwater through District programs by maintaining a network of water quality and water level monitor wells.

E.1. Performance Standards:

A. District staff will collect and analyze water samples from appropriate monitor wells periodically but not less often than once every five years.

Mineral Analyses from Wells within the District (Table 3)

Parameter	Units	2014 Number of Analyses	2014 Average Analysis	2015 Number of Analyses	2015 Average Analysis	2016 Number of Analyses	2016 Average Analysis
Sulfate	mg/l	56	55	6	24.3	16	29.6
Nitrate	mg/l	52	9.6	6	7	16	8.8
Total Iron	mg/l	56	0.05	6	0.069	16	0.1
Chlorides	mg/l	56	37	6	19.1	16	68.8
Fluoride	mg/l	56	1.7	6	0.96	16	0.2
Total Hardness	mg/l	56	222	6	204	16	244

**Note 2016 Test results do not include analyses performed after April 2016 nor samples from area homeowners.*

B. District staff will perform water quality analyses for select constituents for District well owners upon request. Results for the 2015 testing by request are included in Table 3 above, which is published in the 2015-2016 Hydrology and Groundwater Resources Report.

C. District staff will summarize their water quality activities and make the information available to the Board of Directors and the public annually. Results for 2015 water quality testing are summarized in the 2015-2016 Hydrology and Groundwater Resources Report and reflected here in Table 3 above.

D. District staff will collect aquifer water level measurements annually.

Average Depth to Water and Comparisons of Average Declines in Select District Water Level Monitor Wells (Table 4)

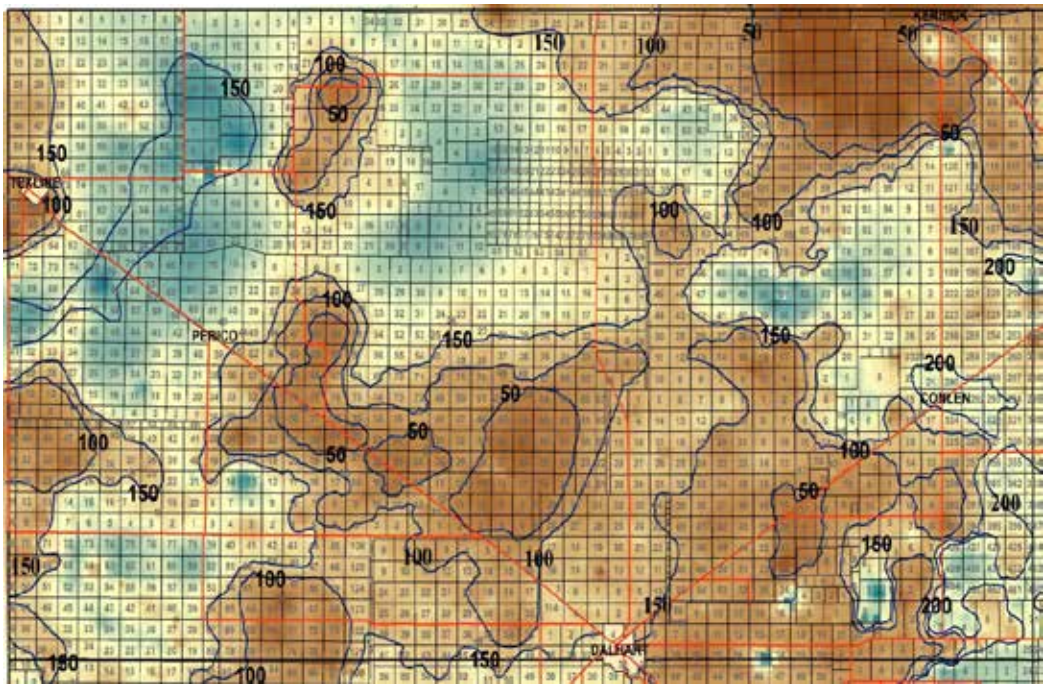
County	Avg. Depth to Water (ft.)	2015 Avg. Well Decline (ft.)	2014 Avg. Well Decline (ft.)	Current 5-Year Avg. Well Decline (ft.)	Previous 5-Year Avg. Well Decline (ft.)	Current 10-Year Avg. Well Decline (ft.)	Previous 10-Year Avg. Well Decline (ft.)
Dallam	275	3.58	3.46	3.45	3.17	3.54	3.12
Hansford	308	2.56	2.49	2.42	2.06	2.29	1.59
Hartley	347	3.38	3.35	3.30	3.01	3.40	2.04
Hutchinson	346	2.16	2.14	2.11	1.95	2.04	1.71
Lipscomb	164	1.05	1.01	1.02	0.84	0.99	0.67
Moore	355	3.10	3.07	3.05	2.27	2.68	1.76
Ochiltree	341	2.16	1.89	1.82	1.52	1.76	1.12
Sherman	307	3.43	3.20	3.18	2.66	2.96	2.10
District-wide	305	2.68	2.58	2.54	2.19	2.46	1.76

**The information in Table 4 was derived from an analysis of monitor well hydrographs created from the data in the District's water level database. The analysis data from some monitor wells, indicating both rises and declines, are not sufficiently consistent to ensure accuracy and reliability in their use. Such data may be excluded during the calculations of declines, depth to water or saturated aquifer formation.*

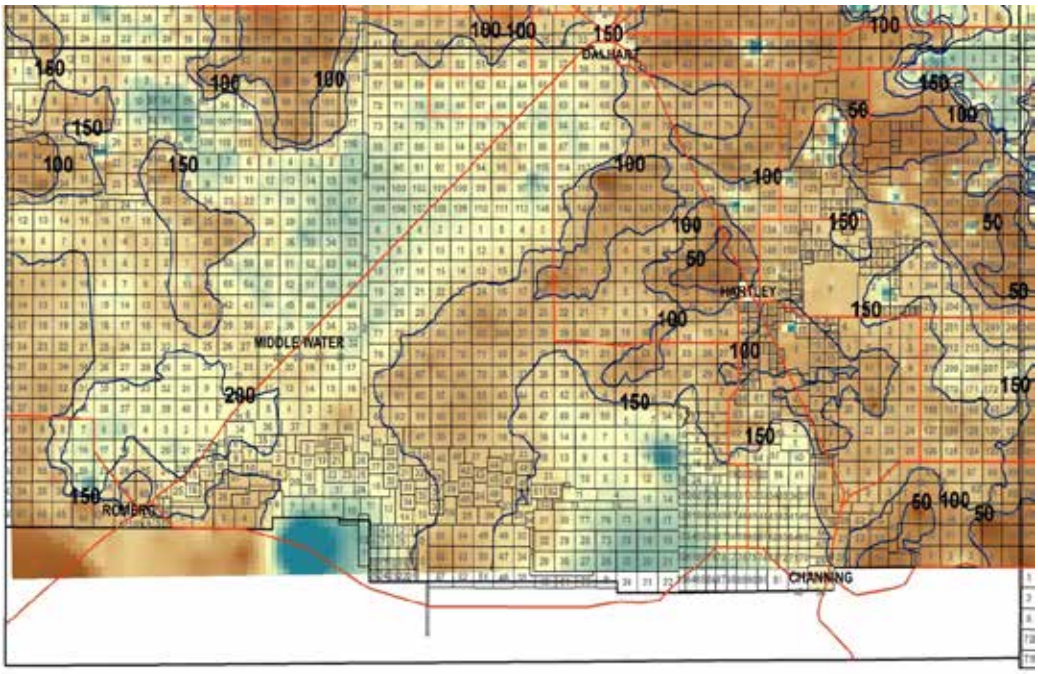
E. District staff will summarize groundwater level declines and average depth to water and make the information available to the Board of Directors and the public annually. Groundwater level declines and average depth to water are summarized in the 2015-2016 Hydrology and Groundwater Resources Report and reflected here in Table 4 on page 9.
F. District staff will summarize or update aquifer saturated material information and make the information available to the Board of Directors and the public at least every two years.

Saturated Thickness by County for 2015

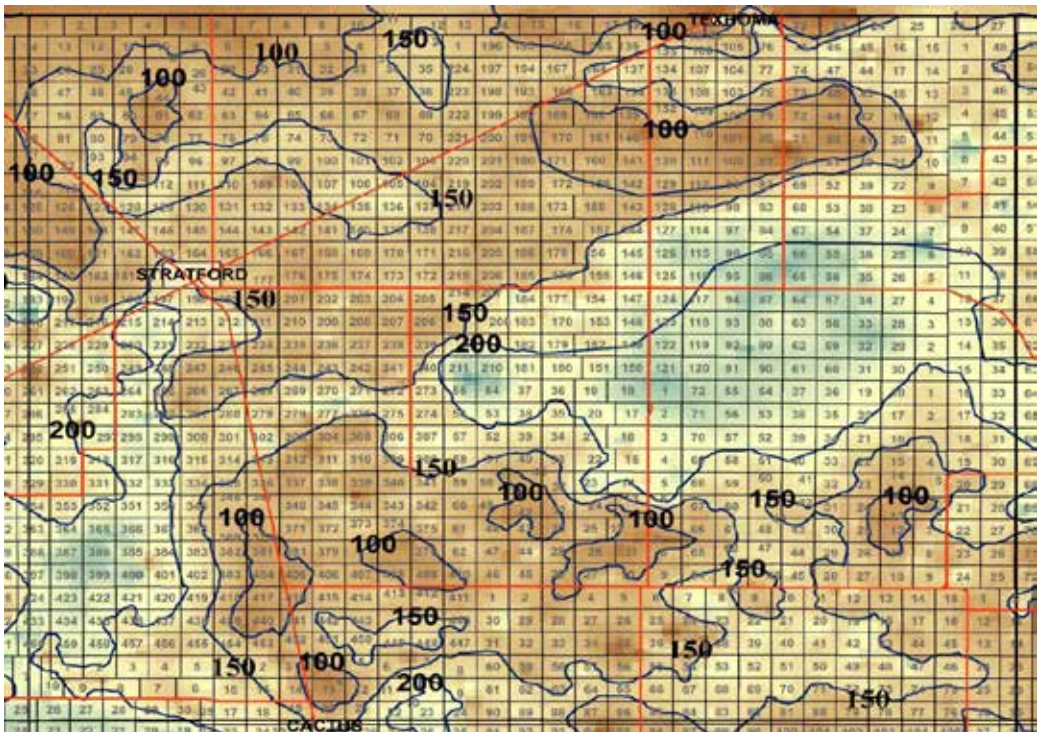
Map 20: Dallam County Average Saturated Thickness 2015



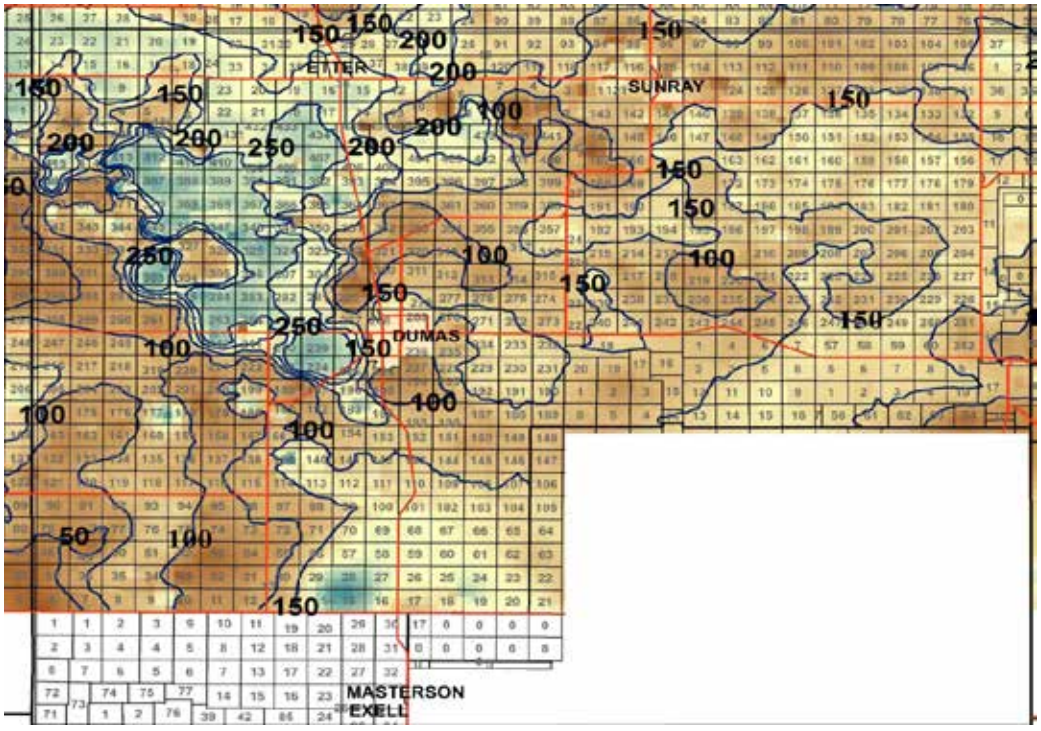
Map 21: Hartley County Average Saturated Thickness 2015



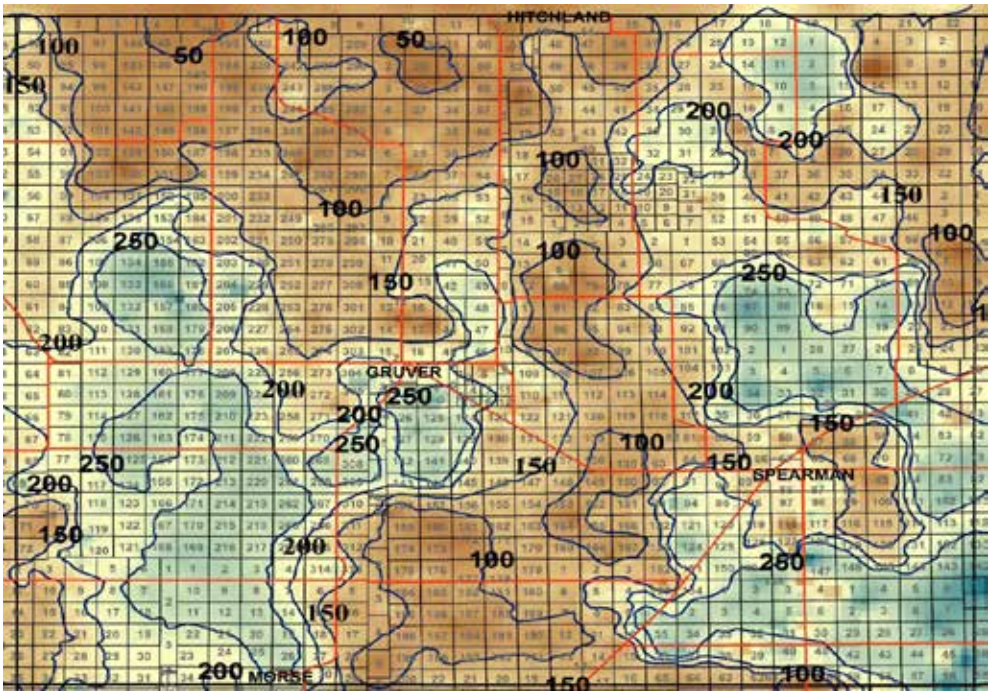
Map 22: Sherman County Average Saturated Thickness 2015



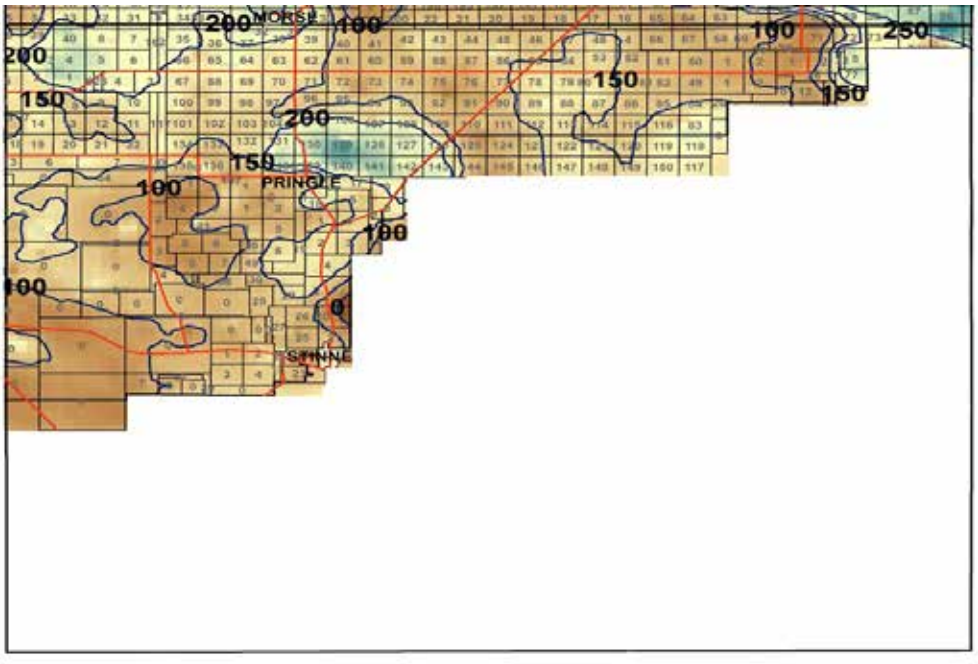
Map 23: Moore County Average Saturated Thickness 2015



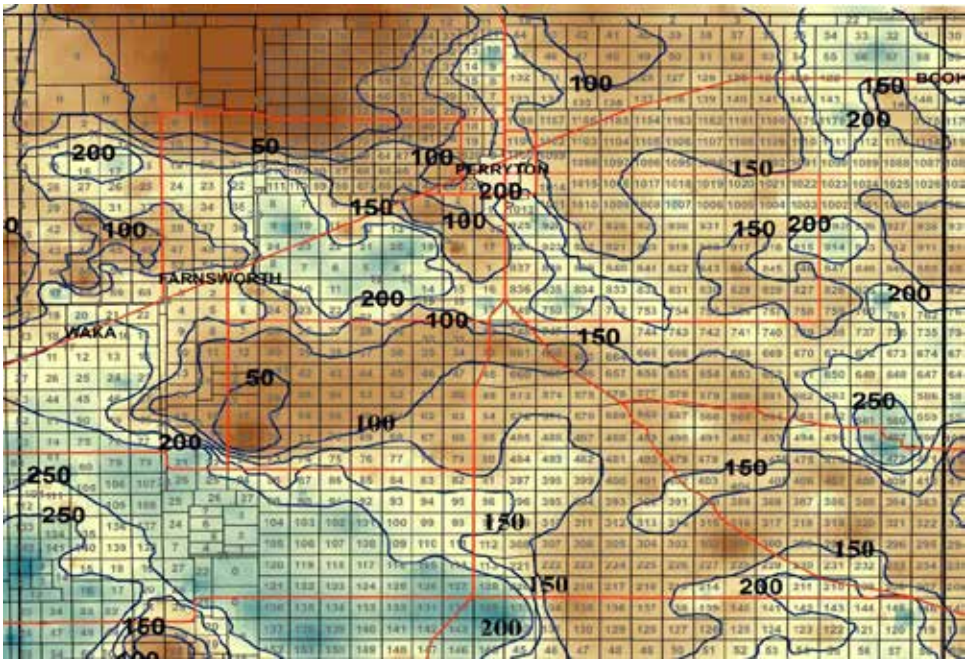
Map 24: Hansford County Average Saturated Thickness 2015



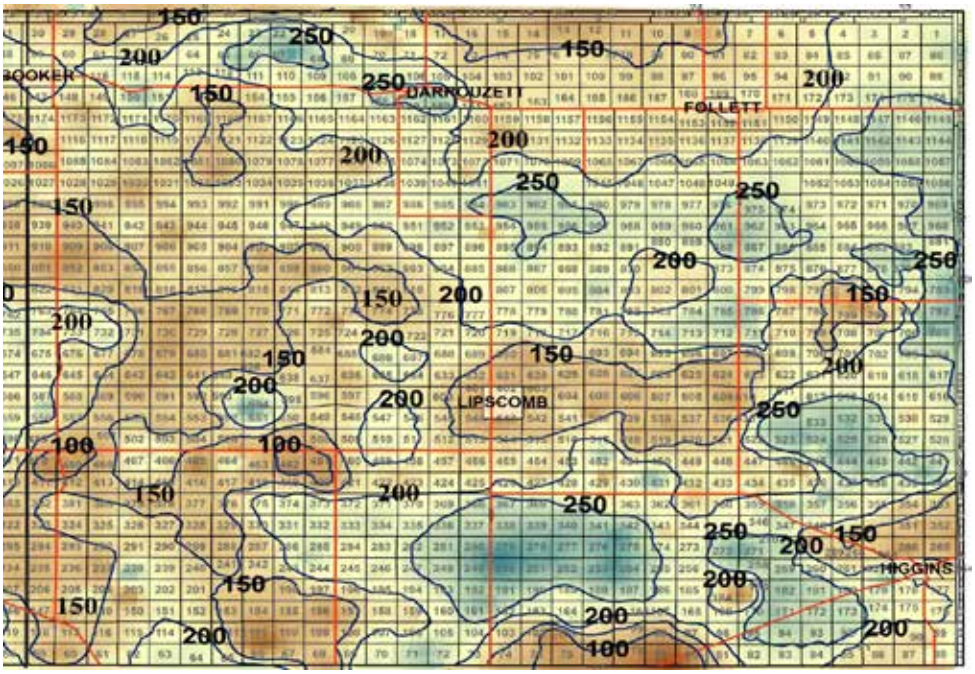
Map 25: Hutchinson County Average Saturated Thickness 2015



Map 26: Ochiltree County Average Saturated Thickness 2015



Map 27: Lipscomb County Average Saturated Thickness 2015



The 2015-2016 Hydrology and Groundwater Resources Report was presented to the Board of Directors on June 14, 2016 as recorded in the minutes of the board meeting.

E.2. Management Objective:

Investigate and address deteriorated wells that may cause a threat to water quality.

E.2. Performance Standard:

A. District staff will pursue repair or plugging of deteriorated wells. (See Table 5 on page 14)

B. District staff will summarize the deteriorated well activities and make the information available to the Board of Directors and the public annually.

Deterioratd Wells (Table 5)

Reported/Discovered	Investigated	Plugged	Capped
11	11	3	8

Addressing Drought Conditions (31TAC §356.5(A)(1)(F))

North Plains Groundwater Conservation District lies in an area of the State of Texas that has a semi-arid climate. Semi-drought conditions are experienced year round and the District works to educate the public about methods to conserve water all year, but particularly during dry periods.

F.1. Management Objective:

Provide residential stakeholders with information and tools to conserve during dry and peak use periods.

F.1. Performance Standards:

Annually, the District will conduct water conservation communications and education activities. These activities will be summarized annually and presented to the Board of Directors.

Summer Municipal Cooperative Conservation Project

2015 marked the fifth year for the District to conduct the Summer Municipal Cooperative Conservation Project, also known as the Operation: Summer Showers Campaign. The Summer Showers Campaign links the District with member cities to distribute conservation tools and information to residents where they live. City water utilities serve as distribution points for conservation kits that include a low-flow showerhead, a sprinkler gauge, a faucet leak gauge and leak detector tablets. In addition, the campaign includes public service announcements on the radio and in local newspapers, as well as social media postings. Seven area city halls served as distribution points for the kits in 2015.

For other District conservation outreach activities see Item G.1b. Performance

Water Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, or Brush Control, Where Appropriate And Cost-Effective (31TAC §356.5(A)(1)(G))

G.1. Water Conservation

G.1a. Management Objective:

Support research and field demonstrations to foster adoption of agriculture water conservation technologies and practices.

G.1a. Performance Standards:

Annually the District will summarize the project results to be presented to the Board of Directors.

"3-4-5 GPM" Gallon Production Maximization Corn Demonstration Project

In 2015, the District began a new series of water conservation demonstrations titled "3-4-5 Gallon Production Maximization (GPM) Corn Demonstration Project". The "3-4-5 GPM" project uses the latest water conservation technologies and practices to grow corn, based on the availability of water. Groundwater availability within the District varies from less than 3 gallons per minute, per acre (gpm/ac) to over 5 gpm/ac. Factors affecting groundwater availability include well pumping

plant efficiency and aquifer capacity for the amount of land irrigated. Most irrigation farmers within the District use between 3 gpm/ac and 5 gpm/ac to grow crops. To address these local conditions, the "3-4-5 GPM" project demonstrates best management practices and technologies to grow crops using 3 gpm/ac, 4 gpm/ac and 5 gpm/ac of irrigation water. More specifically, the project is based on applying 1.10 inches of irrigation weekly, using an irrigation capacity of three gpm/ac, 1.49 inches using four gpm/ac, and 1.85 inches using five gpm/ac. The District partnered with the TWDB, CPS and growers to get the program started.

In the "3-4-5 GPM" project's first year, five cooperating growers committed 700 acres to the demonstrations. Harold Grall dedicated 360 acres in Moore County; Danny Krienke, 120 acres in Ochiltree County; Zac Yoder, 105 acres in Dallam County; Dennis Buss, 60 acres in Hartley County and Stan Spain (CPS), 55 acres in Moore County at the WCC. Grall's fields demonstrated a variety of high-efficiency application methods including the use of "drag hose" water application center pivot systems.

Stan Spain (CPS), in Moore County at the WCC, produced 12 more bushels per acre in his 4 GPM field than the 3 GPM field. Irrigation was 1.95 inches more. The 5 GPM field produced 33 more bushels per acre than the 3 GPM with 3.85 more inches of irrigation. The 5 GPM yield was 21 more bushels per acre than that from 4 GPM field with 1.90 additional inches of irrigation. Corn production was 23.26 bushels (1302 lbs) per inch of irrigation in the 3 GPM field compared to 20.41 bushels (1143 lbs) in the 4 GPM and 19.10 bushels (1070 lbs) from the 5 GPM field. The 4 GPM field's net gain is $23.04 per acre with 1.95 inches more irrigation used compared to production from the 3 GPM field. The 5 GPM field's net gain compared to the 3 GPM field is $71.38 per acre with 3.85 additional inches of irrigation. Net gain for the 5 GPM field is $48.34 per acre more than the 4 GPM with 1.90 inches more irrigation. Net return from each inch of irrigation is $47.59 for the 3 GPM field compared to $41.64 from the 4 GPM and $39.37 for the 5 GPM field. Net return from each inch of total water is $17.64 for the 3 GPM field, $18.20 for the 4 GPM and $19.78 for the 5 GPM field.

Danny Krienke, in Ochiltree County, produced 6 more bushels per acre in the 4 GPM field than the 3 GPM field and irrigation was 1.88 inches more. The 5 GPM field produced 16 more bushels per acre than the 3 GPM with 3.89 more inches of irrigation. The 5 GPM yield was 10 more bushels per acre than that from the 4 GPM field with 2.01 additional inches of irrigation. Corn production was 23.04 bushels (1290 lbs) per inch of irrigation in the 3 GPM field compared to 19.55 bushels (1095 lbs) in the 4 GPM and 17.24 bushels (965 lbs) from the 5 GPM field. The 4 GPM field's net gain is $3.13 per acre with 1.89 inches more irrigation used compared to production from the 3 GPM field. The 5 GPM field's net gain compared to the 3 GPM field is $16.69 per acre with 3.89 additional inches of irrigation. Net gain for the 5 GPM field compared to the 4 GPM is $13.56 per acre with 2.01 inches more irrigation. Net return from each inch of irrigation is $48.16 for the 3 GPM field compared to $39.99 from the 4 GPM and $34.73 for the 5 GPM field. Net return from each inch of total water is $18.48 for his 3 GPM field, $17.00 for the 4 GPM and $16.88 for the 5 GPM field.

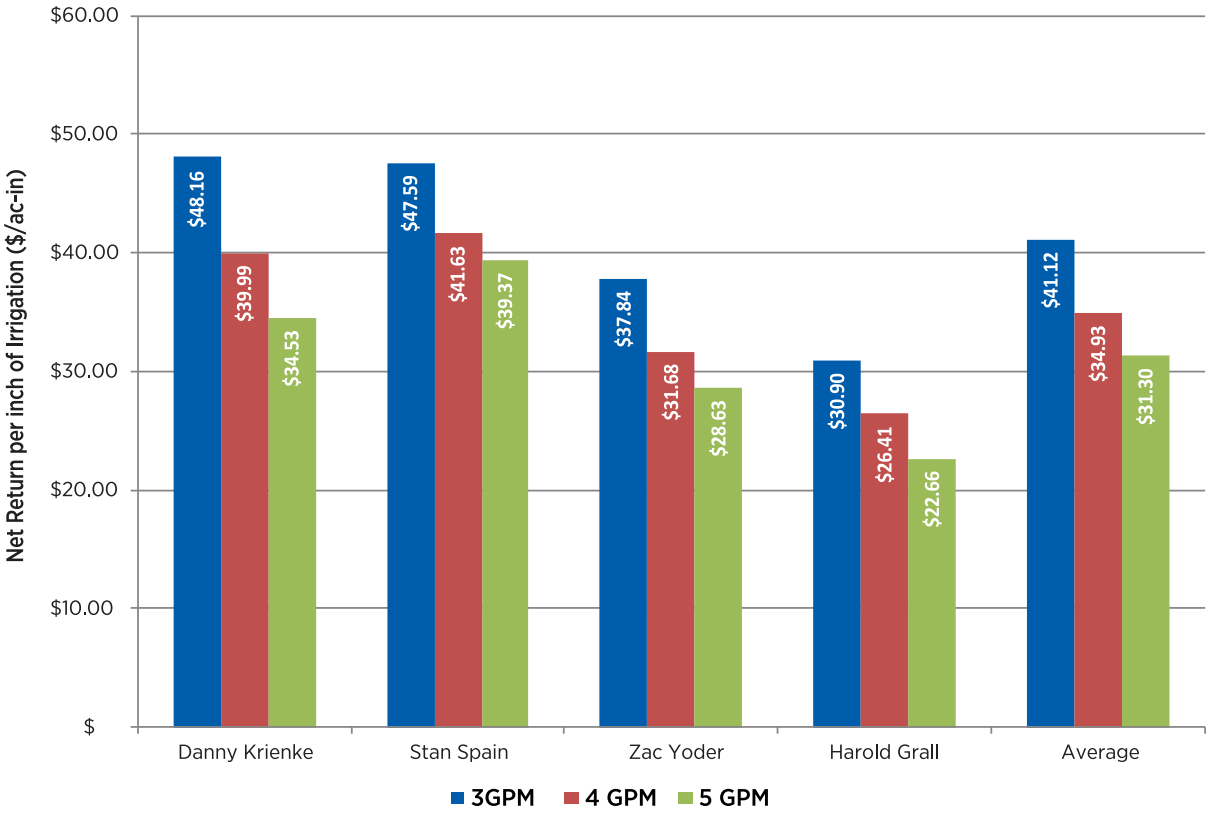
Zac Yoder, in Dallam County, produced 25 more bushels per acre in his 4 GPM field than the 3 GPM and irrigation was 4.11 inches more. The 5 GPM field produced 56 more bushels per acre than the 3 GPM with 8.28 more inches of irrigation. The 5 GPM yield was 31 more bushels per acre than that from the 4 GPM field with 4.17 additional inches of irrigation. Corn production was 18.58 bushels (1040 lbs) per inch of irrigation in the 3 GPM field compared to 15.66 bushels (877 lbs) in the 4 GPM and 14.09 bushels (789 lbs) from the 5 GPM field. The 4 GPM field's net gain is $47.65 per acre with 4.11 inches more irrigation used compared to production from the 3 GPM field. The 5 GPM fields' net gain compared to the 3 GPM field is $111.98 per acre with 8.28 additional inches of irrigation. Net gain for the 5 GPM field is $64.33 per acre more than the 4 GPM with 4.17 inches more irrigation. Net return from each inch of irrigation is $37.84 for the 3 GPM field compared to $31.72 from the 4 GPM and $28.60 for the 5 GPM field. Net return from each inch of irrigation, rainfall and net soil water is $18.21 for the 3 GPM field, $18.19 from the 4 GPM and $17.87 for the 5 GPM field.

Harold Grall, in Moore County, produced 8 more bushels per acre in his 4 GPM field than the 3 GPM field and irrigation was 2.75 inches more. The 5 GPM field produced 11 more bushels per acre than the 3 GPM with 5.36 more inches of irrigation. The 5 GPM yield was 3 more bushels per acre than that from 4 GPM field with 2.61 additional inches of irrigation. Corn production was 15.34 bushels (859 lbs) per inch of irrigation in the 3 GPM field compared to 13.35 bushels (747 lbs) in the 4 GPM and 11.75 bushels (658 lbs) from the 5 GPM field. The 4 GPM field's net gain is $7.68 per acre with 2.75 inches more irrigation used compared to production from the 3 GPM field. The 5 GPM fields' net gain compared to the 3 GPM field is $2.19 per acre with 5.36 additional inches of irrigation. Net gain for the 5 GPM field compared to the 4 GPM is minus $5.49 (lost $5.49) per acre with 2.61 inches more irrigation. Net return from each inch of irrigation is $30.90 for the 3 GPM field compared to $26.41 from the 4 GPM and $22.66 for the 5 GPM field. Net return from each inch of total water is $14.88 for Grall's 3 GPM, $14.83 for the 4 GPM and $13.26 for his 5 GPM field.

Harold Grall's Irrigation Systems, in Moore County, produced 21.07 bushels (1180lbs) per inch of irrigation in both the LEPA Shroud and T-L Precision Mobile Drip Irrigation fields. Net return from each inch of irrigation is $43.98 for both systems and fields. Net return from each inch of irrigation, rainfall and net soil water that totaled 26.18 inches is $19.45 per inch for the LEPA Shroud and T-L PMDI fields.

Harold Grall's PMDI Drag Line Irrigation Sytems, in Moore County, produced 12.61 bushels (706 lbs) from each inch of irrigation. Net return from each inch of irrigation is $22.66. Net return from each inch of irrigation, rainfall and net soil water that totaled 26.08 inches is $12.40. Corn yield was less than anticipated without a clear reason why. There was sufficient available water throughout the growing season. The yield monitor indicates normal uniform yield within the circle. One speculation is that the 58, 54 and 56 degree overnight temperatures on July 7, 8 and 9 stopped plant growth at the 3 to 4 leaf stage. It then required too much time for plants to recover resulting in reduced corn yields.

Net Return from each Inch of Irrigation by Grower (Table 6)



Master Irrigator Program and Agriculture Water Conservation Outreach

In 2015 the District worked with the USDA-NRCS and Texas A&M AgriLife Research and Extension to develop the Master Irrigator Program to promote widespread adoption of technologies and practices to achieve agricultural water conservation in the District. Master Irrigator training is an irrigation management curriculum made up of 4-5 days of intensive, interactive irrigation education. The program is focused on increasing understanding of, and proficiency with, the latest irrigation management tools, technologies and practices. Armed with this knowledge, irrigators will be able to select tools and strategies that fit their operation and can be implemented to maximize return on investment for every drop of water used.

The NRCS provided a $45,000 matching grant to get the program and other agriculture water conservation outreach programs off of the ground. The District established a producer advisory panel to work with Dr. Steve Amosson of Texas AgriLife to develop the curriculum for the course. The District also applied for funding to provide growers with incentives to participate in the program. The program began in 2016.

District Assists with Pump Tests for Variable Frequency Drives

Variable Frequency Drives (VFDs) allow electric pump motors on irrigation wells to speed up or slow down to adjust pump performance and to match operating conditions. Used correctly, VFDs can save energy, while increasing pumping plant efficiency.

In 2015, the District began working with the USDA-NRCS and local growers to assist with the NRCS pump testing requirements and application process for installing VFDs on irrigation wells. The pump tests consisted of two tests, one before and one after the installation of the VFD. The tests determined the efficiency and cost savings for the pumping systems. The District performed sixteen pumping tests for growers that were approved for funding through NRCS EQIP for VFDs.

G.1b. Management Objective:
Conduct conservation education activities to encourage water conservation (prevention of waste) and create informed and educated citizens who will be dedicated stewards of their resources.

G.1b. Performance Standards:
Annually the District will disseminate groundwater conservation and waste prevention information through a variety of media, activities and events. Activities will target agricultural, residential and young stakeholders. A summary of educational activities will be presented to the Board of Directors each year.

CONSERVATION OUTREACH ACTIVITIES

Annual Water Festivals
The annual water festivals are a full day of water conservation and natural resource educational activities for the District's fourth grade students. Students visit multiple hands-on activity stations during the three festivals where they learn about topics including, the Ogallala aquifer, watershed protection, the history of water in the region and much more. In 2015, the events were held May 6th in Dalhart, May 7th in Dumas and May 8th in Perryton. 969 students attended the events. For the third year in 2015, the festivals featured a finale presentation from Kevin Barnes, the Green Magician. Barnes has presented his Green Earth Magic Show to young people all over the country including 18 years at the Orange County Children's Water Education Festival in Irvine, CA, the largest children's water festival in the country.

In-Class Groundwater Conservation Presentations
District personnel provided in-class groundwater conservation education for 4th grade classes in Moore County reaching more than 350 students. In addition staff presented soil labs to 75 5th grade students at the Hemphill County Water Festival, bringing the total of students participating in on-site educational programs to over 425. The District provides in-class presentations by request on a first come, first served basis to any classes in the District, grades K-12.

Groundwater Conservation Presentations

The District provides presentations to community and civic organizations and stakeholders within the District, and to industry groups locally, state-wide and beyond. Presentations in 2015 included:

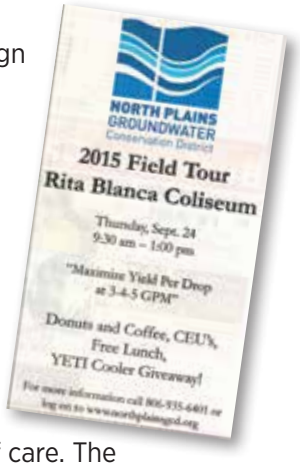
January 12th	Leon New/Kirk Welch, Pioneer Crop Production Clinic – Dalhart
January 13th	Leon New/Kirk Welch, Pioneer Crop Production Clinic – Dumas
January 14th	Leon New/Steve Walthour, Pioneer Crop Production Clinic – Stratford
January 15th	Leon New/Steve Walthour, Pioneer Crop Production Clinic – Spearman
January 20th	Danny Krienke, Sorghum U
February 3rd	Steve Walthour, District Stakeholder Meeting – Texline
February 6th	Steve Walthour, District Stakeholder Meeting – Dalhart
February 19th	Steve Walthour, Danny Krienke, Bob Zimmer, Gene Born, Texas Legislature Resolution – Austin
March 19th	Steve Walthour, Irrigation Leader News Magazine
March 23rd	Steve Walthour, Texas Senate Testimony
March 24th	Steve Walthour, Bob Zimmer, Proposed Conservation Rules Stakeholder Meeting – Dumas
March 26th	Steve Walthour, Bob Zimmer, Proposed Conservation Rules Stakeholder Meeting – Dalhart
May 6th	4th Grade Water Festival – Dalhart
May 7th	4th Grade Water Festival – Dumas
May 8th	4th Grade Water Festival – Perryton
May 12th	Kirk Welch, Moore County Water Wise Living Conference – Dumas
July 16th	Steve Walthour – Amarillo Rotary Club
July 24th	Steve Walthour, Danny Krienke, USDA – Washington DC
August 26th	Steve Walthour, TAGD Summit – San Marcos
August 26th	Kirk Welch, TAGD Summit – San Marcos
September 22nd	Leon New/Steve Walthour, Harold Grall, 3-4-5 Demonstration Field Tour – Etter
September 23rd	Leon New/Steve Walthour, Danny Krienke, 3-4-5 Demonstration Field Tour – Perryton
September 24th	Leon New/Steve Walthour, Zac Yoder, 3-4-5 Demonstration Field Tour – Dalhart
September 24th	Steve Walthour, Farm Bureau Meeting – Stratford
October 21st	Steve Walthour, Groundwater Foundation National Conference MI Pres. – Lincoln, NE
November 19th	Kirk Welch, Moore County Farm Bureau Ag Day – Dumas
December 3rd	Steve Walthour, Farm and Ranch Show Presentation – Amarillo

North Plains Water News

The North Plains Water News was published three times in 2015. The NPWN is a four-page newsletter that features articles highlighting the District's regulatory, scientific and education outreach activities, as well as other relevant news relating to water. In addition to mailing the print version to over 1800 recipients, the newsletter is also available on the District website at www.northplainsgcd.org. In 2015, the District distributed the newsletter via email to an additional 600 subscribers.

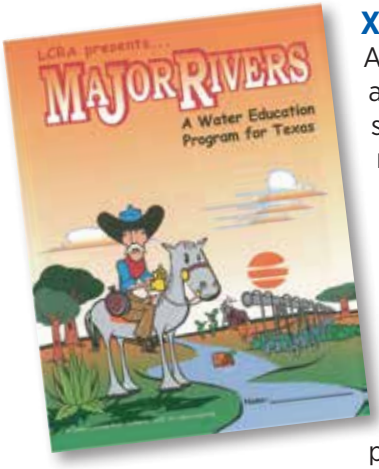
Conservation News Releases

The District employs a consistent media relations and public relations campaign featuring news releases highlighting the activity of the Board of Directors and updates on the District's conservation outreach programs. The District also responds to media requests for information and assists television, radio, print and online news agencies in the coordination of coverage that will extend the conservation message.



Rainwater Harvesting

The District co-hosted the Water Wise Living Conference in Dumas on Tuesday, May 12th at the Moore County Community Building along with Texas A&M AgriLife Extension and the Moore County Extension Leadership Advisory Board. The program featured residential water conservation presentations on topics ranging from rainwater harvesting to water smart turf care. The District also has rainwater harvesting information available upon request at the District office.



Xeriscaping Class

As a part of the Water Wise Living Conference, former Master Gardner and author of the website highplainsgardner.com, Angie Hanna, explained the system of xeriscape gardening and highlighted numerous low water use and native plants that are well adapted to the Panhandle climate.

Major Rivers Curriculum

The Major Rivers Curriculum was made available by request to any class within the District.

Fifth Grade WaterWise Education Curriculum

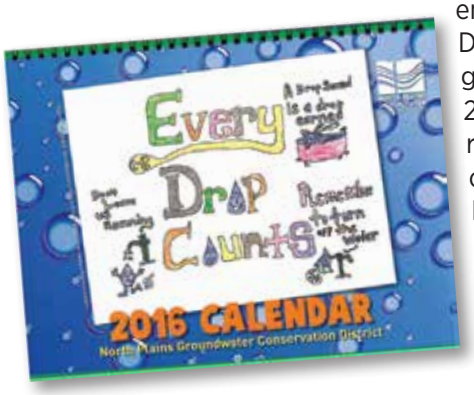
The WaterWise Conservation Education Program was made available to fifth graders in the District. 814 fifth grade students and their teachers participated in the program. Through an in-class, teacher-led conservation curriculum and a take-home kit filled with conservation tools, students and their families are learning and saving water.

Total Projected Program Savings:

ANNUAL	LIFETIME
6,777,746	40,383,872 gallons of water
25,332	158,476 therms of gas
171,480	1,074,551 kWh of electricity

Water Conservation Calendar Art Contest

The District sponsored the annual Water Conservation Calendar Artwork Contest in 2015. The contest was open to 4th, 5th and 6th grade students throughout the District. Students submitted their entries to the District office where staff selected 12 monthly winners and one grand prize, cover winner. All winners were featured in the 2016 Water Conservation Calendar. The grand prize winner receives a $50 gift card and the entry is displayed on the cover of the calendar. The other winners receive $25 gift cards. The District produced 400 calendars and distributed them to the winners, other individuals by request and through the District office and city offices throughout the District.



Groundwater Presentation at Farm Bureau Ag Fairs

Approximately 350 students participated in the "Edible Aquifer" activity presented in cooperation with the Moore County Farm Bureau. The "Edible Aquifer" teaches the students about the composition of aquifers through the unique experience of constructing an aquifer out of all edible materials. Crushed ice is used to represent the mineral layers of the aquifer, lemon-lime soda takes the place of the water, ice cream is substituted for the confining layer of clay, and chocolate milk mix tops off the structure as top soil. Finally, a straw represents the well. The students lower the straw into the formation and drink it down, dirt and all. The activity uses the powerful sense of taste to reinforce the concept of the aquifer and where our water comes from.

Meter Reimbursement Program

The North Plains Groundwater Conservation District has distributed over $296,000 to area producers, so far, to help offset the cost of meters on irrigation wells. That leaves about $1.4 million remaining of the funding that's being provided to the District in the form of grants from the TWDB. The funds are awarded to the District by the TWDB on the basis that meters are an accepted and effective management tool for producers and for groundwater conservation districts.

The TWDB has awarded the funds in several competitive funding rounds that began when the District received $600,000 in October of 2014. The TWDB awarded the District an additional $800,400 in June of 2015 and then in August another $295,050, bringing the grand total to almost $1.7 million to be passed on to producers who install new meters on their irrigation wells.

The District has registered 217 properties into the Meter Reimbursement Program, which represents approximately 1046 meters to be purchased. The District has actually reimbursed 370 meters, to date. The initial $600,000 grant amount was based on cost sharing an estimated 1,000 meters, so the currently registered number of meters would more than deplete the original grant.

The funds from grants two and three will be available to continue to cost share the purchase of irrigation well meters after the first round of funding is expended. The TWDB funds will allow the district to assist in the purchase of approximately 2,300 meters.

G.2. Recharge Enhancement

The District has limited surface water resources to enhance recharge through diversion or infiltration of surface water. The District explored recharge enhancement through its precipitation enhancement program. The District discontinued its funding for the precipitation enhancement program in 2006. The District could not quantify if, and to what extent, the program positively affected precipitation and subsequent recharge. Therefore, recharge enhancement through surface water diversion or infiltration, or through precipitation enhancement could not be proven to be effective. The District has determined that this objective is not applicable at this time.

G.3. Rainwater Harvesting

G.3. Management Objective:

Provide public information regarding rainwater harvesting.

G.3. Performance Standards:
The District's activities in rainwater harvesting education will be summarized annually and presented to the Board of Directors.

The rainwater harvesting education and outreach activities conducted by the District are described in detail under the Performance Standards for Item G.1b.

G.4. Precipitation Enhancement

The District has determined that this objective is not applicable at this time.

G.5. Brush Control

G.5. Management Objective:
Provide public information regarding brush control.

G.5. Performance Standards:
Maintain brush control literature in the District office. The District's activities in addressing brush control education will be summarized annually and presented to the Board of Directors.

Brush control information is available in the District office at 603 E. 1st Street, Dumas, TX.

Desired Future Conditions (DFC) of the Groundwater Resources (31TAC§356.5(A)(1)(H))

H.1. Management Objective:
Revise District Rules to achieve Desired Future Conditions of the Ogallala, Rita Blanca and Dockum aquifers.

H.1. Performance Standards:
The District will update its rules within one year of adoption of the management plan. Annually the District will review its rules and conservation programs to determine if they are achieving the DFCs.

The new District Management Plan was adopted by the Board of Directors in May of 2013 and approved by the TWDB in July of 2013. The acceptance by the TWDB began the 1-year window for adoption of rules to achieve the DFC's. In July of 2014 the District passed new rules designed to make adjustments in the Annual Allowable Production, if necessary, to meet the Desired Future Conditions. In April 2015 the Board repealed the existing rules and approved newly proposed and revised rules for the District. The decision was the culmination of three years of review by the Board. The rules regarding the DFCs were moved, unchanged, from Chapter 4 in the previous rules to Chapter 8 in the current rules. On July 21, 2015 the Board of Directors reviewed the rules and programs and no action was taken regarding Annual Allowable Production.

H.2. Management Objective:
Monitor the condition of the aquifers and status of groundwater production compared to the adopted DFCs.

H.2. Performance Standards:
Annually review groundwater production information, GAMs, and water level measurements to characterize aquifer conditions compared to the DFCs and report findings to the Board of Directors.

General Manager, Steve Walthour, compiled the following information showing the status of the aquifer in relation to Modeled Available Groundwater based on the District's Desired Future Conditions.

District Production Trend Compared to Ogallala Modeled Available Groundwater (Table 7)

County	Average Annual Production 2010-2015 (Acre-Feet)	MAG Average 2010-2015 (Acre-Feet)	Annual Average MAG Above or Below Production	MAG Percent Above or Below Production
Dallam	356,522	395,608	39,086	10%
Hansford	190,993	279,009	88,016	32%
Hartley	435,606	414,284	-21,322	-5%
Hutchinson	64,890	60,575	-4,315	-7%
Lipscomb	45,349	288,831	243,482	84%
Moore	213,252	196,684	-16,568	-8%
Ochiltree	94,629	263,716	169,087	64%
Sherman	329,426	317,830	-11,595	-4%
Total	**1,730,666**	**2,202,951**	**472,284**	**21%**

2010-2015 Average Groundwater Production Compared to the Current Estimated MAG (Modeled Available Groundwater) from the District's West Management Area. (Table 8)

West - Production Average				
County	Average Annual Production 2010-2015 (Acre-Feet)	MAG Average 2010-2015 (Acre-Feet)	Annual Average DFC Available Reserve	MAG Percent Above or Below Production
Dallam	356,522	395,608	39,086	10%
Hartley	435,606	414,284	-21,322	-5%
Moore	213,252	196,684	-16,568	-8%
Sherman	329,426	317,830	-11,595	-4%
Total	**1,334,805**	**1,310,820**	**-23,986**	**-2%**

2010-2015 Average Groundwater Production Compared to the Current Estimated MAG (Modeled Available Groundwater) from the District's East Management Area.(Table 9)

East - Production Average				
County	Average Annual Production 2010-2015 (Acre-Feet)	MAG Average 2010-2015 (Acre-Feet)	Annual Average DFC Available Reserve	MAG Percent Above or Below Production
Hansford	190,993	279,009	88,016	32%
Hutchinson	64,890	60,575	-4,315	-7%
Lipscomb	45,349	288,831	243,482	84%
Ochiltree	94,629	263,716	169,087	64%
Total	**395,861**	**892,131**	**496,270**	**56%**

H.3. Management Objective:
Joint plan with other Groundwater Conservation Districts to achieve DFCs.

H.3. Performance Standards:
At least annually report the joint planning committee activities to the Board of Directors.

February 18, 2015 – Bob Zimmer, GMA 1 Board Member and North Plains GCD Board President, attended the GMA 1 meeting as did North Plains GCD Board Member, Gene Born and General Manager, Steve Walthour. Additional District attendees included, Keith Good, Ellen Orr and Kirk Welch.

The report for joint planning was presented to the Board of Directors at multiple board meetings including the March 24, 2015 meeting as reflected in the District's official minutes.

North Plains Groundwater Conservation District joint planned with the three other Groundwater Management Area 1 member districts in 2015. The groundwater management area planning process included one public meeting held at the Panhandle Regional Planning Commission, 415 SW 8th Avenue in Amarillo. Board President Bob Zimmer presided over the committee. Board Secretary Danny Kreinke served as its representative to the Panhandle Regional Water Planning Group. The representatives of the member districts retained the Panhandle Regional Planning Commission for administrative services including: preparation of meetings, assistance in development of agenda packets, fulfilling secretary of state requirements with regards to Texas Open Meetings Act, and maintaining Texas Public Records. North Plains GCD assisted in the planning process by providing technical services and coordinating the groundwater availability modeling of proposed Desired Future Conditions, as needed. The member districts considered various presentations and information to address Texas Water Code Chapter 35 and Chapter 36 requirements.

H.4. Management Objective:
Manage groundwater withdrawal amounts based on an allowable production limitation in order to achieve DFCs.

H.4. Performance Standards:
Annually the District will summarize the previous year's allowable production compliance. Each year the compliance results will be presented to the Board of Directors.

2015 Compliance Statistics (Table 10)

In Compliance	Exceeded Production Limit	Administratively Resolved	Fine Paid/Meters Installed
2845	9	6	3

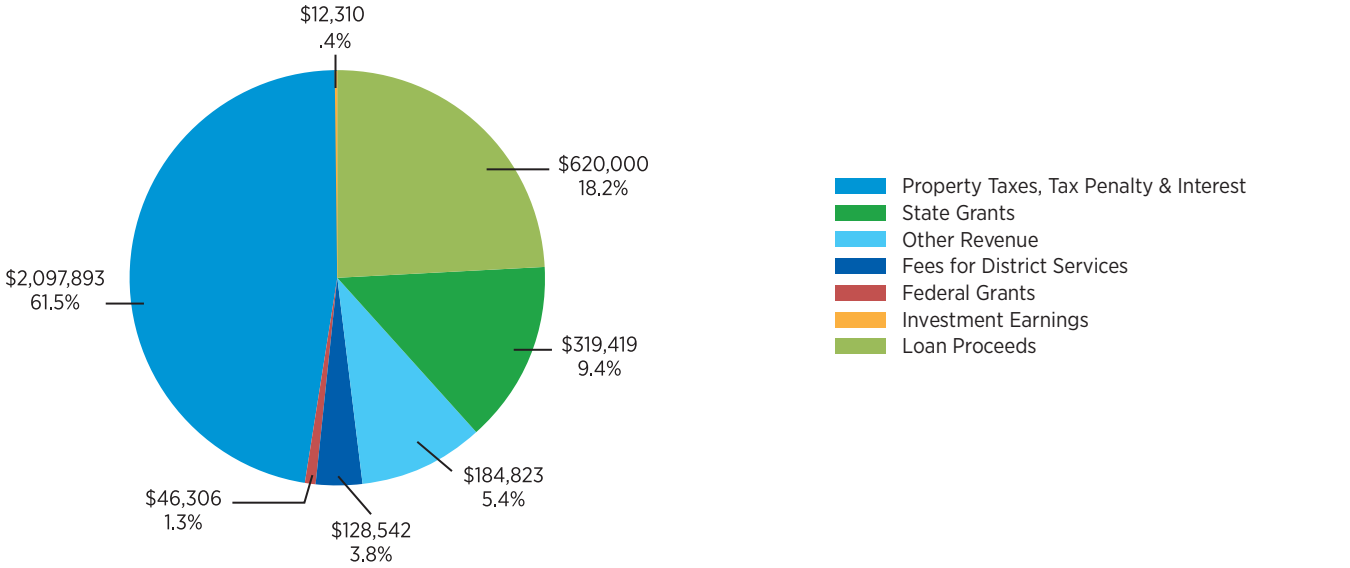
DISTRICT FINANCIALS

For the fiscal year ending September 30, 2015, the District's net financial position decreased by $0.21 million, or nearly 5.7%, as a result of 2015 District operations and prior period adjustment due to implementation of GASB Statement No. 68. During the year, the District had expenditures that were $0.25 million more than the $2.79 million generated in tax and other revenues for District programs. The total cost of all of the District's programs and activities was $2.48 million. However, our taxpayers ultimately paid only $2.09 million because some of the costs were paid by those who directly benefited from the programs ($0.199 million) or by grants the District acquired at the direction of the Board ($0.366 million) that subsidized certain conservation programs.

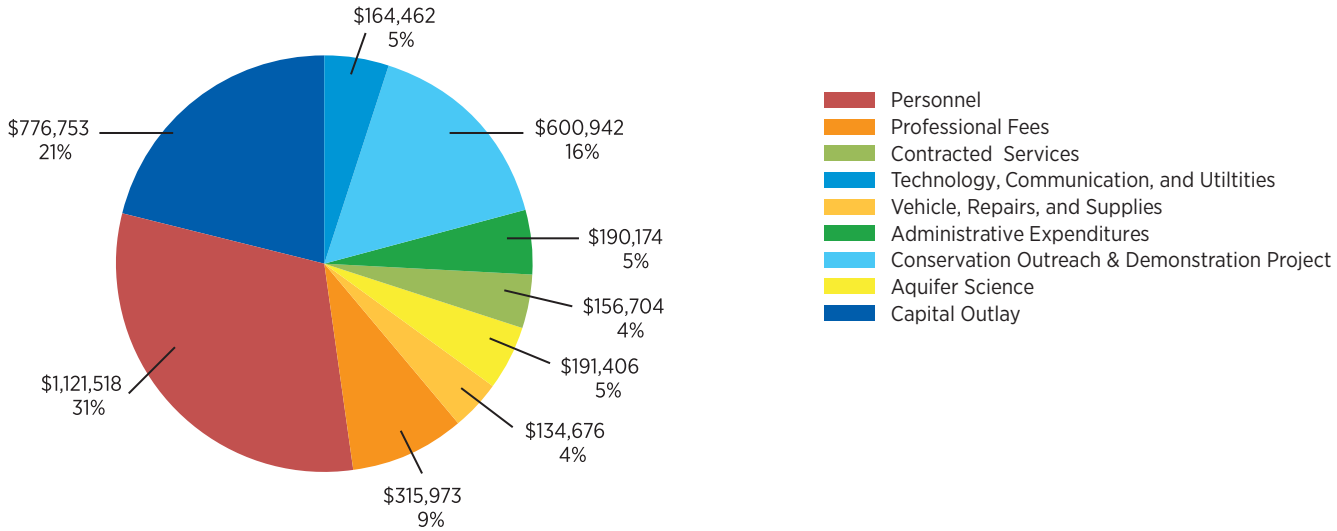
The general fund ended the year with a fund balance of $1.38 million, which is down from the previous year's balance of $1.70 million.

At the end of the fiscal year the District had $2.64 million invested in a broad range of capital assets including facilities and equipment for water conservation. The amount represents a net increase of just over $0.59 million or 28.6% more than last year. The following charts show the District's revenues and other financing sources as well as the District's expenditures for the fiscal year ending September 30, 2015.

Revenues and Other Financing Sources



Total Expenditures



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