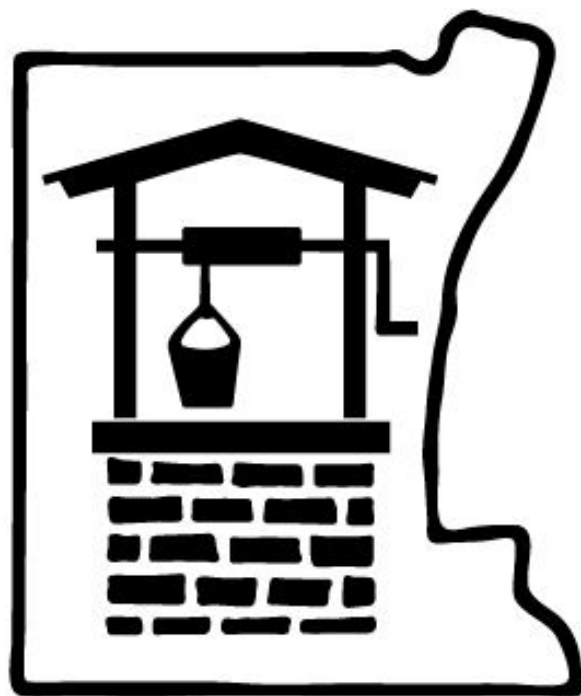


RUSK COUNTY GROUNDWATER CONSERVATION DISTRICT



DISTRICT ANNUAL REPORT 2019

SEPTEMBER 2018 TO AUGUST 2019

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BOARD OF DIRECTORS

BOBBY BROWN – PRESIDENT

DAVID C. POWELL – VICE PRESIDENT

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EMILY WHITWORTH – DIRECTOR

JIM WHITE – DIRECTOR

WILLIAM SHEEHAN - DIRECTOR

GENERAL MANAGER

AMANDA MALOUKIS

REPORT COMPLETED 9/11/2019

APPROVED

OCTOBER 14, 2019

DISTRICT MISSION

*“DEVELOP AND IMPLEMENT A SOUND GROUNDWATER MANAGEMENT PROGRAM TO
PROTECT AND SUSTAIN THE GROUNDWATER RESOURCES OF THE DISTRICT”*

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METHODOLOGY FOR TRACKING DISTRICT PROGRESS IN ACHIEVING MANAGEMENT GOALS:

An annual report will be prepared and presented to the Board of Directors on District performance with regard to achieving management goals and objectives. The presentation of this report will occur within the first quarter of the following fiscal year. The Annual Report will be prepared in a format that will be reflective of the performance standards listed following each management objective. The District will maintain the reports on file for public inspection at the District's office upon adoption.

MANAGEMENT PLAN GOALS, OBJECTIVES & PERFORMANCE STANDARDS:

The Rusk County Groundwater Conservation District has seven management objectives with fifteen goals detailed in the Management Plan, Section 12, adopted November 12, 2018. These objectives and goals provide details along with the performance of the District in attaining these goals as follows.

12.1. PROVIDING THE MOST EFFICIENT USE OF GROUNDWATER**12.1.A. MAINTAIN A WELL REGISTRATION PROCESS**

OBJECTIVE: The District will require the registration of all groundwater wells, exempt and non-exempt, new and existing, within the boundaries of the District to be registered in accordance with the District Rules.

PERFORMANCE STANDARD: The number of new and existing water wells registered with the District will be provided at the regular District Board meetings and in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

At each regular scheduled board meeting, Well Statistics for the month was recorded and reported to the board. Following are well statistics of the year for new, existing, exempt, and non-exempt wells all maintained in the District's database.

September 1, 2018 - August 31, 2019	
Authorizations to Drill & Produce Water:	97
Authorizations to Drill Denied:	0
Total Authorizations Overall:	1,794
Amended Applications:	2
Amended Applications Denied:	0
Total Amended Applications Overall:	8
Rush Applications:	10
Total Rush Applications Overall:	37
Total Registrations Issued, New Wells:	82
Total Registrations Issued, Existing Wells:	229
Total Registrations Overall:	4,960
Total Operating Permits (OP) Issued:	29
Total Permits OPs Issued Overall:	95
Total Operating Permits on File:	175
Transfer Inspections Completed:	11
Transfer Inspections Overall:	556
Surface Inspections Completed:	87
Surface Inspections Overall:	412
Large Diameter Wells Registered:	16
Large Diameter Wells Registered Overall:	420
Large Diameter Wells Plugged:	10
Large Diameter Wells Plugged Overall:	25
Plugged Oil and Gas Water Wells Overall:	702
Wells Plugged or Consumed in Mines Total Overall:	1,147

*Overall: numbers since District or rule creation

12.1.B. MAINTAIN A WELL PERMITTING PROCESS

OBJECTIVE: The District will require all new and existing non-exempt water wells within the boundaries of the District to be permitted in accordance with the District Rules.

PERFORMANCE STANDARD: The District will process applications for operating permits of all non-exempt water wells pursuant to the permitting process of the District Rules. A summary of the number of applications for permitted use of groundwater will be provided at the regular District Board meetings and in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

At each regular scheduled board meeting, Well Statistics for the month was recorded and reported to the board which includes applications for permitted use.

To find more detail on the District managing groundwater supplies please refer to the District's Management Plan and Rules all available to the public on the District's website, www.rcgcd.org.

See Objective 12.1.A for Activity and Accomplishments regarding District Well Statistics.

12.1.C. MAINTAIN AN ELECTRONIC DATABASE

OBJECTIVE: Maintain the Districts Groundwater Well Database for registrations, permits, and groundwater production volume. The database shall include information deemed necessary by the District to enable effective monitoring and regulation of groundwater in the District.

PERFORMANCE STANDARD: The District will document all new and existing wells in the District's database. All new and existing wells documented will be included in the District's Annual Report.

PERFORMANCE STANDARD: The District will include a summary of the estimated volume of water produced within Rusk County in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

The District operates a web-based Groundwater Well Database and transitioned from a Microsoft Access/ArcGIS database in June 2017. The District began operation of the new web-based Database with improvements implemented and data transferred from the existing system to improve efficiency in all areas. All registrations, permits, and groundwater production volumes are accessible from the database for District use.

See Objective 12.1.A for Activity and Accomplishments regarding District Well Statistics.

See Appendix A, for Activity and Accomplishments related to documenting groundwater production.

See Appendix B, for Activity and Accomplishments related to documented new and existing wells in the District's database.

12.2. CONTROLLING AND PREVENTING WASTE OF GROUNDWATER**12.2.A. DISSEMINATE INFORMATION ON WASTE PREVENTION**

OBJECTIVE: The District will provide information on an annual basis for the purpose of educating the public on elimination, reduction, and prevention of the waste of groundwater. The District will use at least

one of the following methods to provide information to the public annually:

- a. Distribute literature packets or brochures;
- b. Conduct public or school presentations;
- c. Sponsor an educational program or course;
- d. Provide information on the District's web site;
- e. Submit an article for publication with local papers;
- f. Present displays at public events.

PERFORMANCE STANDARD: A summary of the District's efforts to disseminate information on waste prevention will be included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

The District disseminated waste prevention and conservation literature, materials, and demonstrations to the public in the following ways:

A. October 2018:

- a. The District presented at the fall Texas Water Conservation Association Conference in San Antonio, on the District's Groundwater Commingling Prevention Program along with the Texas Department of Licensing and Regulation Groundwater Division.
- b. The District participated in partnership with the Rusk County Agrilife Extension Office for a field day for 3rd graders from across Rusk County. The District's "Water Pipe" game was presented, a total of 325 students were reached.
- c. The District Presented at the Rusk-Smith County Forest Landowners Association Conference. Presented on Basic groundwater rights in Texas and within the District and District services.

B. November 2018: The District was featured as the District of the month in the Texas Alliance of Groundwater District's monthly newsletter. Services highlighted were the District's commingling prevention program, abandoned well program, and permit methods.

C. January 2019:

- a. Facebook page postings: 1) Track Groundwater Contamination with TCEQ, 2) Rain Water Harvesting with District & Agrilife Extension Service. -On average 16 people reached per posting.
- b. Website posting: Track Groundwater Contamination with TCEQ.

D. March & April 2019:

- a. Facebook page postings: 1) Monitoring Programs of the District, 2) Texas 4-H Water Ambassadors Program, 3) What does Artesian mean?, 4) NGWA-The Things We Find In Water Wells, 5) District Groundwater Commingling Program *biggest hit, 6) Southern Region Water Conference. -On average 88 people reached per posting.

E. May 2019:

- a. Facebook page postings: 1) Protect pipes, 2) Water Well Testing, 3) 9 individual posts on groundwater awareness week, 4) Fix a Leak Week, 5) Texas 4-H Water Ambassador Program, 6) Facts on Leaks, 7) Water Wise Landscaping, 8) Leaks in Irrigation System, 9) Get Informed on the State Water Plan, 10) Get Smart about your Landscaping, 11) Region D Meeting, 12) Region I Meeting, 13) April Showers Bring May Flowers, 14) Gardening Gloves are off -On average 18 people reached per posting.
- F. July 2019:
 - a. Facebook page postings: 1) Protect the Source, 2) A New Way to Power Up, 3) Outlook + Water Summary, 4) Overton Large Well Inspection *945 people reached, 5) RRC GW Department, 6) TGWA interview by TAGD, 7) Protect Your Water Well During Flooding, 8) Precipitation Update, 9) Texas Well Owners Network Well Guide, 10) RRC Surface Casing Estimator Tool, 11) City of Henderson Water Department Share -On average 24 people reached per posting.
 - b. Facebook Ad on E-Log service to area reached 4,994 with 1,041 ThruPlays.*
- G. August 2019:
 - a. Facebook page postings: 1) Smart Irrigation Month, 2) TWDB State Water Plan Interactive, 3) We All Have a Role in Conservation, 5) Water Workforce Gap, 6) 10 Challenges of Water Utilities, 7) Water Once a Week.
- H. District Press Release in the Henderson Daily:
 - a. September 2018, Water Wells & Earthquakes, also posted on website.
 - b. March 2019, National Groundwater Awareness Week article and ad.
 - c. May 2019, Wet Conditions & El Nino Summer 2019.
 - d. July 2019, July is Landscape Irrigation Month.
 - e. August 2019, Upcoming Fiscal Year for the Groundwater District.
 - i. District Ad, shows service area, aquifer, and directors.
 - ii. Tax & Budget Notice.
 - iii. District Ad, for General Manager.
- I. The District maintains a native, drought tolerant landscape around the District office to serve as an example of plants that can be utilized to minimize waste and promote conservation. The landscape and practice is promoted on the District's website.
- J. The District's Website hosts several different educational pieces readily available to the public. Specific topics by section on the website regarding waste prevention and conservation are as follows: Monitoring Programs, District Groundwater Geology and Groundwater Resources, Groundwater Well Education, Recharge Enhancement, Water Conservation, Youth Education Program, Groundwater Well Education, Conservation Education, and finally the District's Current Events, News, and Articles. Total website visitation for the year was 2,219.

12.2.B. IDENTIFY WASTEFUL PRACTICES

OBJECTIVE: The District will identify wasteful practices within the boundaries of the District through the following methods:

- a. Track water loss for all water utilities within the District;
- b. Enforce District Rule 9.2.5 requiring inspection and/or plugging of oil and gas groundwater wells.

PERFORMANCE STANDARD: The District will include a summary of the total volume of water loss from water utilities in the District's Annual Report.

PERFORMANCE STANDARD: The District will include the total oil and gas groundwater wells inspected and plugged each fiscal year in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

Through Rule 9.2.5 continued efforts to eliminate comingling of aquifers zones of different quality and prevent waste of water from one zone to another.

See Objective 12.A.1. Activity and Accomplishments for oil and gas groundwater wells inspected and plugged.

See Appendix A, for summary of water loss of Rusk County water utilities.

12.3. ADDRESSING CONJUNCTIVE SURFACE WATER MANAGEMENT ISSUES

12.3.A. PARTICIPATING IN THE REGIONAL WATER PLANNING PROCESS

OBJECTIVE: The District will attend at least one East Texas Regional Water Planning Group (Region I) and the North East Texas Regional Water Planning Group (Region D) meeting each fiscal year.

PERFORMANCE STANDARD: The District will participate in the regional planning process by attending at least one meeting of Region I and Region D meetings each fiscal year. A report will be presented at a regular board meeting of the District on conjunctive surface water issues of the appropriate Regional Water Planning Groups. Attendance of meetings for Region I and Region D will be included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

District representatives attended a Regional Water Planning Group (RWPG) I meetings and RWPG D meetings. Following attendance of RWPG I and D meetings a report was provided to the District Board of status and activities at the following regular board meeting. Following are dates that District Representatives attended and participated in the RWPG D & I meetings:

RWPG	Meeting Date	District Representative
I	4/17/2019	A.Maloukis
I	7/17/2019	A.Maloukis
D	2/6/2019	A.Maloukis
D	4/23/2019	A.Maloukis
D	8/1/2019	A.Maloukis

12.4. ADDRESSING NATURAL RESOURCE ISSUES

12.4.A. MONITOR WATER LEVELS

Objective: The District will manage and maintain its existing water level monitoring program. The District will monitor water levels within the District boundaries at least annually and will be recorded in the District's database.

PERFORMANCE STANDARD: A description of the number of wells measured and the monitoring results of the year will be included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

AQUIFER MONITORING

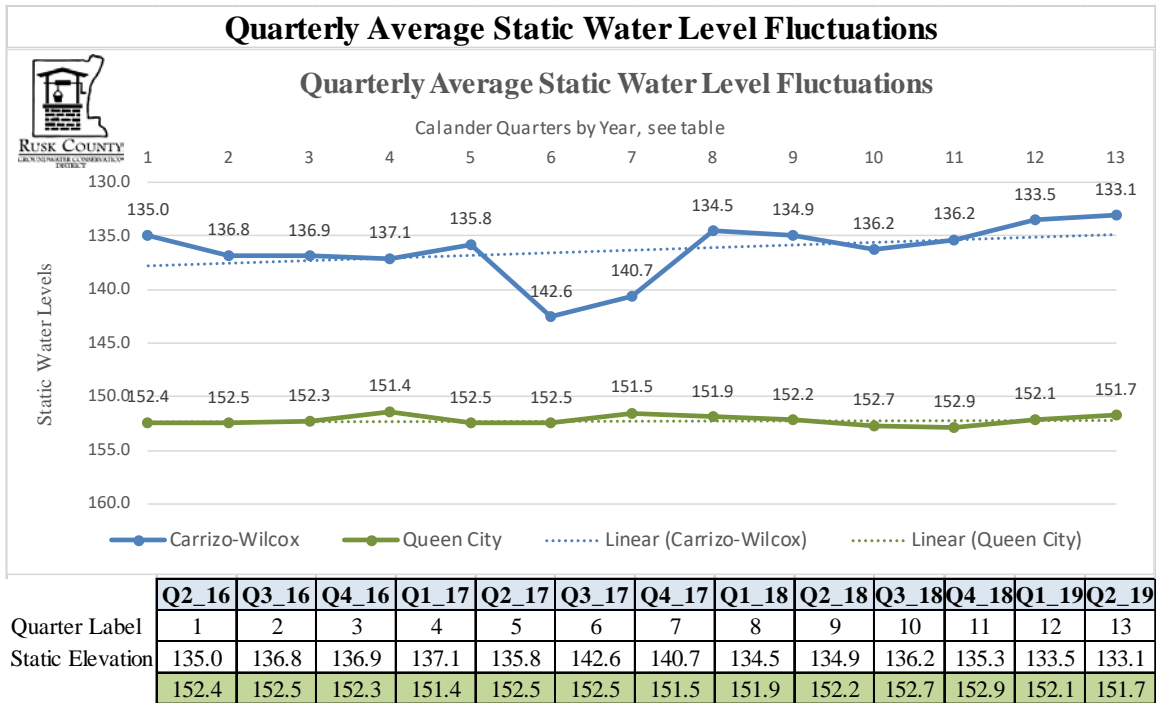
MONTHLY: The District collects static water level readings at an average of 16 monitor wells monthly.

QUARTERLY: The District collects static water level readings at an average of 98 monitor wells quarterly. As wells are plugged by owners the District shifts its wells monitored and numbers accordingly. This data is maintained in the District's database.

REAL-TIME STATIONS: The District has 4 real-time stations recorded by transducers. Data from these monitor wells is uploaded daily via satellite to the Texas Water Development Board site and is linked to the District website for real-time coverage locally.

Data is collected in the field and evaluated by depth to water from surface and is kept in the District's database. The District's quarterly average aquifer levels by Depth to Water are displayed in the following graph.

See Appendix A, for annual groundwater elevations report.



12.4.B. ADDRESS ABANDONED AND NUISANCE WELLS

OBJECTIVE: The District will encourage the plugging of abandoned and nuisance groundwater wells. The District will conduct inspections of groundwater wells within the District's boundaries to encourage proper maintenance of groundwater wells and to document abandoned and nuisance groundwater wells that pose a risk to the District's groundwater resources.

PERFORMANCE STANDARD: A description of the number of wells inspected, the number of wells in violation, and the number of wells brought into compliance or plugged will be included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

The District promotes its Abandoned Well Program to assist and encourage well owners financially and legally with the task of capping or plugging an abandoned or nuisance groundwater well.

The District conducts healthy well inspections of existing wells, newly drilled wells, and down-hole inspections of groundwater wells for oil and gas rig supply and exploration. This assists the District in identifying potential risks to the aquifer and those well owners by eliminating public health and safety risks of groundwater commingling and abandonment. All inspected wells and recorded and kept on file at the District Office and on the District's Database.

A description of wells identified through the District's healthy well inspection program is outlined below:

District Abandoned & Nuisance Well Prevention				
September 1, 2018 - August 31, 2019	2018-2019	2017-2018	2016-2017	2015-2016
Transfer Inspections Completed:	11	10	9	29
Surface Inspections Completed:	87	125	67	70
Wells sent Notice of Violation:	12	22	37	21
Wells brought into compliance:	7	12	39	17
Wells Plugged or Consumed in Mines:	109	142	137	62
Well Plugging Reimbursements:	0	0	4	0

12.5. ADDRESSING DROUGHT CONDITIONS

12.5.A. DROUGHT CONTINGENCY PLAN

OBJECTIVE: The District will implement its Drought Contingency Plan if conditions meet the criteria listed in the plan. The District will evaluate its Drought Contingency Plan annually to determine if any amendments are necessary and properly respond to drought conditions locally.

PERFORMANCE STANDARD: A summary of the evaluation of the District's Drought Contingency Plan and any revisions to the plan for proper response to drought conditions will be included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

The District's DCP was evaluated as required annually, May 13, 2019 by the District's Board of Directors and General Manager. It was determined no amendments were needed. The Board identified the plan as reviewed.

12.5.B. TRACK DROUGHT CONDITIONS

OBJECTIVE: The District will monitor drought conditions using a suitable source such as the U.S. Drought Monitor or the Palmer Drought Severity Index Map.

PERFORMANCE STANDARD: Link's on the District's web page to the Palmer Drought Severity Index, U.S. Drought Monitor, and the TWDB's website on drought will be made available to the public.

PERFORMANCE STANDARD: A summary of monitored drought conditions will be provided at the regular District Board meetings and in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

Drought conditions are tracked in the District and surrounding area with the Palmer Drought Severity Index Map and the Texas Drought Monitor once a month and presented at the Monthly Board meetings. The Palmer Drought Severity Index Map, Texas Drought Monitor, and the TWDB's website on drought are made available to the public on the District's web page, <http://rcgcd.org/monitoring-programs/>.

The majority of the fiscal year experienced above average rainfall for an extended period, with the beginning of a flash drought occurring during the summer of 2019.

12.6. ADDRESSING CONSERVATION, RECHARGE ENHANCEMENT, AND RAINWATER HARVESTING**12.6.A. PUBLIC EDUCATION TO EMPHASIZE WATER CONSERVATION**

OBJECTIVE: In coordination with efforts in waste prevention, the District will provide information on an annual basis to promote conservation. The District will use at least one of the following methods to provide information to the public annually:

- a. Distribute literature packets or brochures;
- b. Conduct public or school presentations;
- c. Sponsor an educational program or course;
- d. Provide information on the District's web site;
- e. Submit an article for publication with local papers; and
- f. Present displays at public events.

PERFORMANCE STANDARD: A summary of the District's efforts to disseminate information on water conservation will be included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

See Objective 12.2.A for Activity and Accomplishments regarding efforts to disseminate information on water conservation.

12.6.B. RECHARGE ENHANCEMENT

OBJECTIVE: To continue education on the diversity of the resource, the District will provide information relating to recharge enhancement on the District web site.

PERFORMANCE STANDARD: Information that has been provided on the District web site will be included or summarized in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

Recharge Enhancement education and external links are made available to the public on the District's web page in the Education Tab at, <http://rcgcd.org/205-2/>. This material provides information on groundwater movement and aquifer characteristics regarding recharge enhancement within Rusk County.

12.6.C. RAINWATER HARVESTING

OBJECTIVE: The District will promote rainwater harvesting by providing information about rainwater harvesting on the District web site.

PERFORMANCE STANDARD: Information that has been provided on the District web site will be included or summarized in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

Rainwater Harvesting education and external links are made available to the public on the District's web page in the Education Tab at, <http://rcgcd.org/rain-water-harvesting/>. This material provides information for an alternative water supply, reducing stress on our area aquifers, and complexity of the unit's design.

12.7. ADDRESSING THE DESIRED FUTURE CONDITIONS OF THE GROUNDWATER RESOURCES**12.7.A. MANAGE AND MAINTAIN A WATER LEVEL MONITORING PROGRAM**

OBJECTIVE: The District will manage and maintain its existing water level monitoring program. The District will monitor water levels within the District boundaries at least annually and will be recorded in the District's database, as part of Objective 12.4.A. The District will evaluate water level trends and compare to the DFCs adopted by the District's.

PERFORMANCE STANDARD: A description of the number of wells measured and the monitoring results of the year will be included in the District Annual Report.

PERFORMANCE STANDARD: An annual comparison of water level changes to the District's DFC will be evaluated and included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

See Objective 12.4.A. Activity and Accomplishments for the District managing and maintaining its existing water level monitoring program and results.

See Appendix A for annual comparison of water level changes to the District's DFC.

12.7.B. MONITOR ESTIMATE ANNUAL PRODUCTION

OBJECTIVE: The District will estimate total annual groundwater production for each aquifer based on water use reports, estimated exempt use, and other relevant information and compare production estimates to the Managed Available Groundwater (MAG).

PERFORMANCE STANDARD: An annual comparison of total recorded and estimated annual production to the District's MAG will be evaluated and included in the District's Annual Report.

ACTIVITY AND ACCOMPLISHMENTS:

See Appendix A for total estimated annual production compared to the MAG.

APPENDIX A

DISTRICT MAG & DFC COMPARISON & PRODUCTION REPORTING ANALYSIS 2018

RUSK COUNTY GROUNDWATER CONSERVATION DISTRICT

PRODUCTION REPORTING ANALYSIS

WITH MAG COMPARISON

AND WATER LOSS ANALYSIS

2018

REPORT PRODUCED BY: AMANDA MALOUKIS, GENERAL MANAGER

JULY 15, 2019

The Rusk County Groundwater Conservation District (District) requires reporting of groundwater production for all permit holders of non-exempt wells, mining, and oil and gas rig supply and exploration. Meters are required for groundwater production of oil and gas, mining, and permitted wells outside of agricultural and domestic usage.

The District's 2018 Management Plan requires the District to monitor estimated annual production (12.7.B.) and conduct an annual comparison of the District's water level changes to its adopted DFC (12.7.A.). This report reviews the production by type of use with comparisons to past years statistics.

Acronyms & Definitions

- An acre-foot is defined as the volume of one acre of surface area to a depth of one foot.
- 1 acre-foot = 325,852 liquid gallons
- a/f: acre-feet
- PWS: Public Water Supply
- GAM: Groundwater Availability Model
- MAG: Managed Available Groundwater
- GMA 11: Groundwater Management Area 11
- TCEQ: Texas Commission on Environmental Quality
- TWDB: Texas Water Development Board

PRODUCTION REPORTING STATISTICS

Overall total reports submitted decreased by 19 from 2017, with the largest decrease of 21 reports from Non-Exempt well owners outside of PWS usage, and the largest increase in reports from the Oil & Gas Industry by 5 reports. Non-exempt well owner reports decreased due to a shift in administrative recordings.

Reports Received				
Type	2015	2016	2017	2018
PWS Total:	61	87	87	87
Mining Total:	17	26	12	9
Oil & Gas Total:	54	9	12	17
Steam Electric Total:	1	1	1	1
Non-Exempt outside of PWS Total:	11	25	41	20
Overall Total:	144	148	153	134

Overall total production increased by 385 a/f from 2017, although the prior year decreased by -1,464.8 a/f from 2016. The largest increase in production by 322.5 a/f from PWS usage, and the largest decline in production from Non-Exempt wells due to a shift in administrative recordings. The previous year of 2016 the Mining Industry decreased production by -1,757.3a/f. Due the closure of Oak Hill Mine.

Total Production by Type of Use (acre-feet per year)									Production Difference from 2017 to 2018
	2015		2016		2017		2018		
PWS:	5,395.2	56.9%	5,920.2	56.7%	5,693.4	65.6%	6,015.9	66.4%	322.5
Mining:	1,584.2	16.7%	1,988.6	19.1%	231.3	2.7%	330.7	3.6%	99.4
Oil & Gas:	172.3	1.8%	85.3	0.8%	47.2	0.5%	28.8	0.3%	-18.4
Steam Electric:	16.6	0.2%	7.4	0.1%	41.4	0.5%	0.0	0.0%	-41.4
Non-Exempt outside of PWS:	8.5	0.1%	40.2	0.4%	140.6	1.6%	79.5	0.9%	-61.1
Irrigation-TWDB:	139.0	1.5%	148.0	1.4%	200.0	2.3%	200.0	2.2%	0.0
Domestic & livestock-TWDB:	2,160.0	22.8%	2,244.0	21.5%	2,328.0	26.8%	2,412.0	26.6%	84.0
Overall Total:	9,475.8	100%	10,433.7	100%	8,681.9	100%	9,066.9	100%	385.0

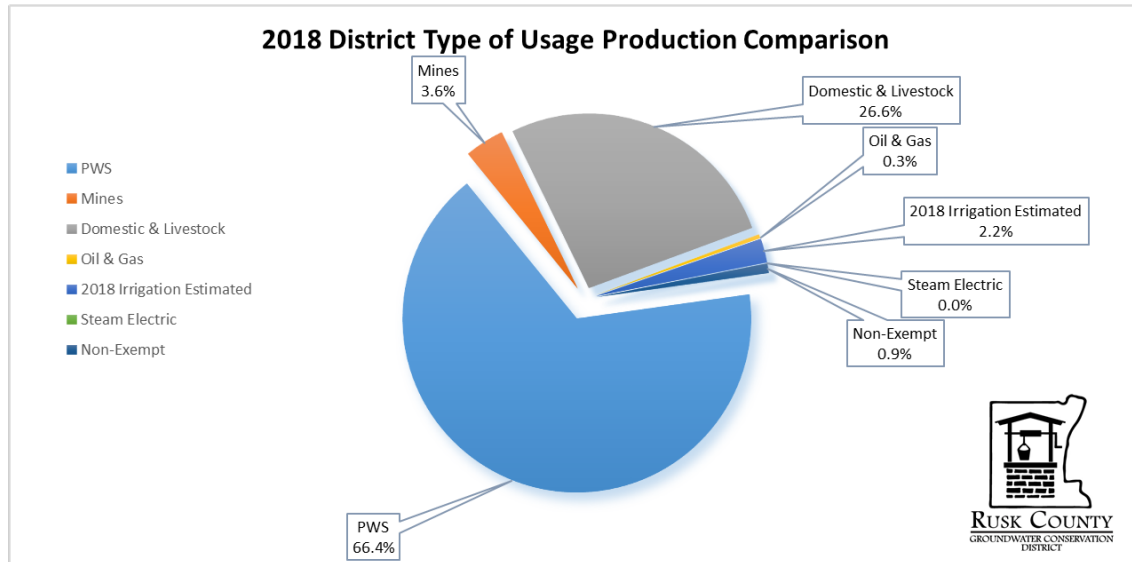
*TWDB irrigation estimates included for prior years, 2018 number will be made available next year. District estimated number has been included.

*TWDB Domestic & Livestock production is provided in 5-10 year intervals to coincide with the State Water Plan.

*Non-exempt usage numbers differ due to change in administrative recordings.

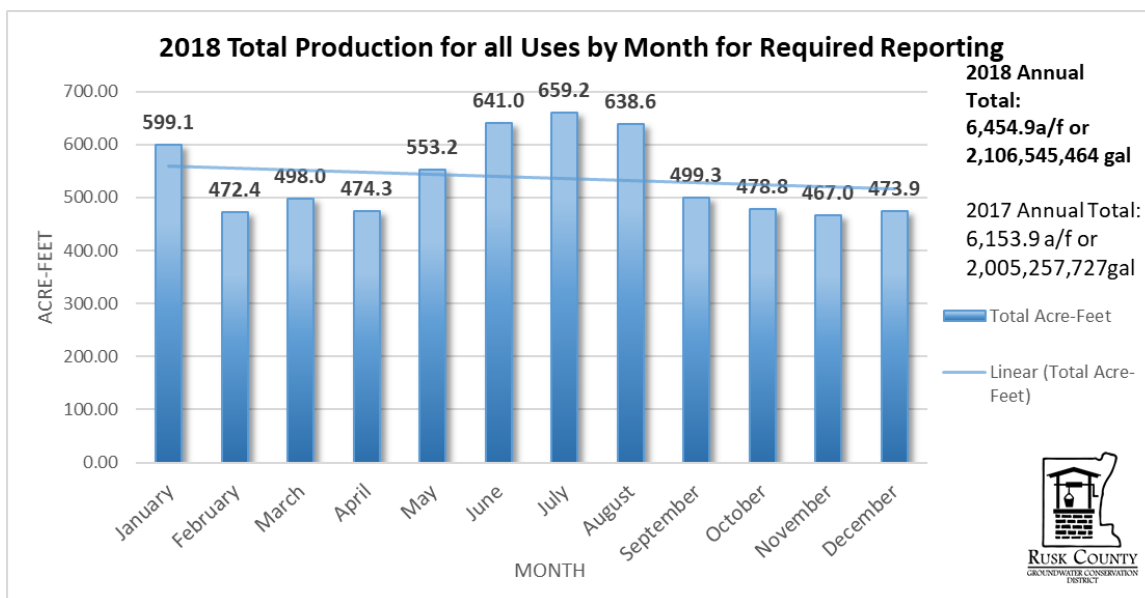
PRODUCTION BY TYPE OF USE

Production by Type of Use in Rusk County continues to be led by Public Water Suppliers producing 66.4%, Domestic & Livestock producing 26.6%, and Mining production at 3.6%. Minimal amounts of production were seen with Irrigation at 2.2%, Non-Exempts at 0.9%, and Oil & Gas and Mining producing at 0.3% of the overall production in Rusk County in 2018.



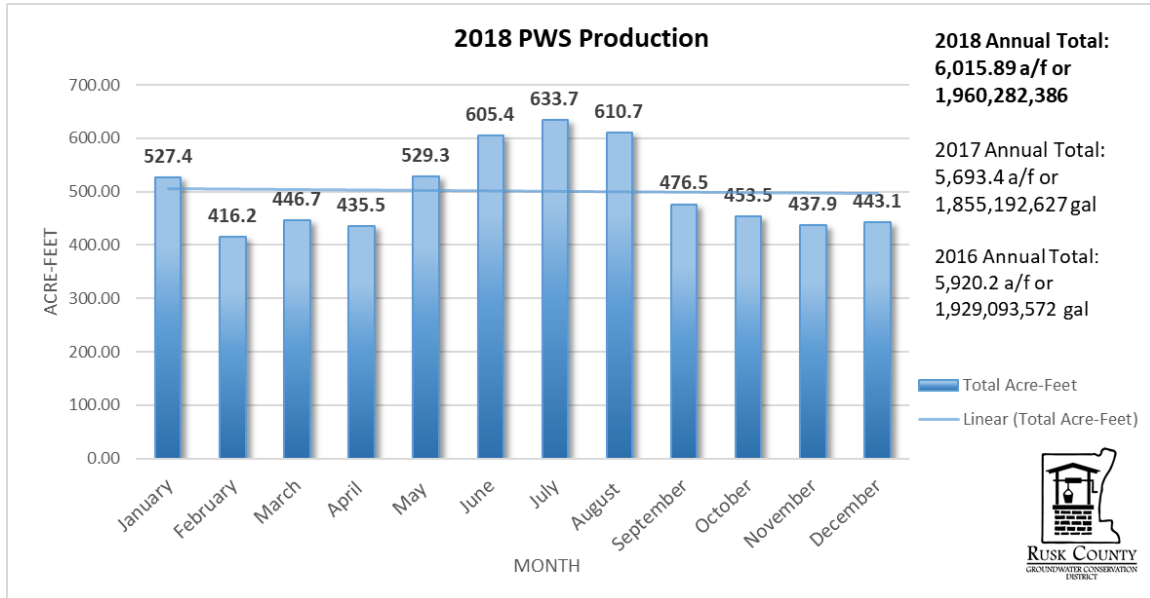
TOTAL PRODUCTION BY MONTH FOR ALL TYPES OF USE

Total Production for all Uses shows the largest month of production was July at 660.6 a/f and the lowest month of production being February at 472.7 a/f. With a trend line showing a decrease in production through the end of the year.

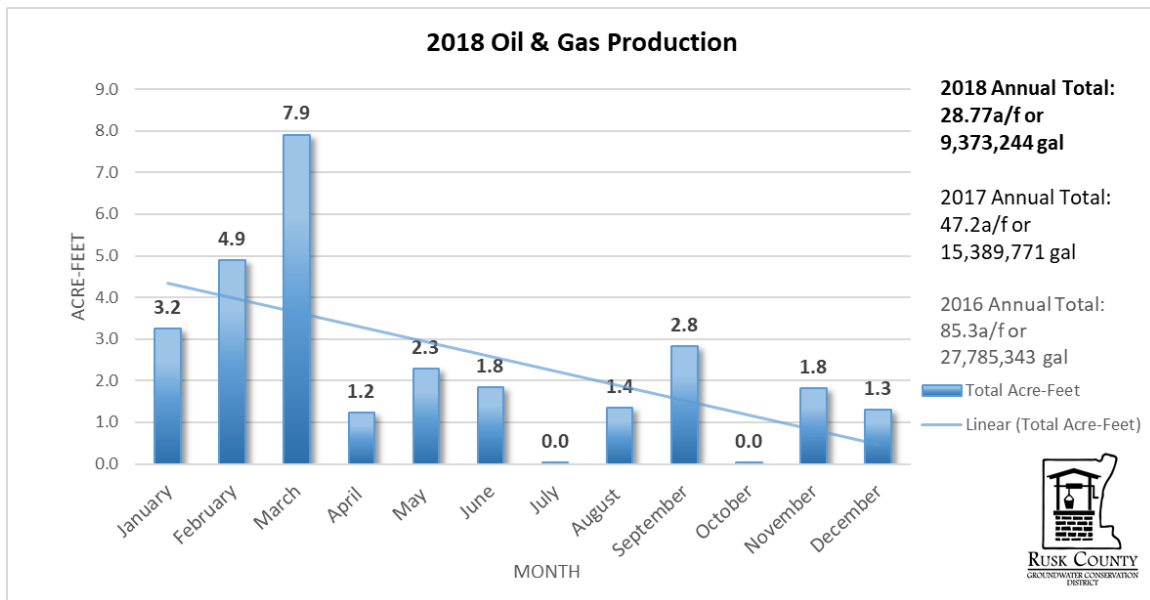


PRODUCTION BY TYPES OF USE

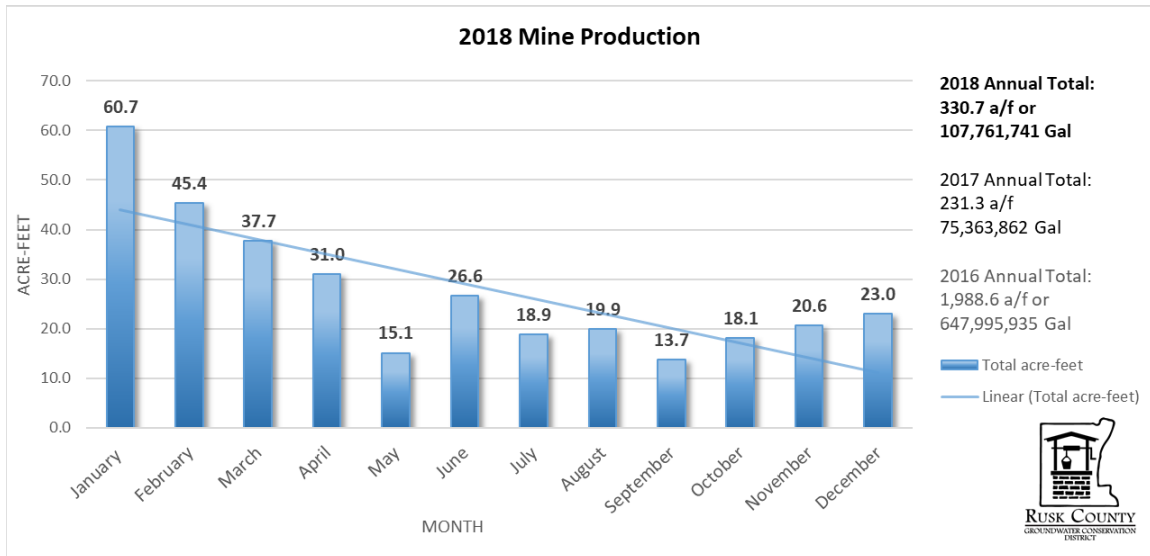
PWS production increased from 2017 by 322.5 a/f. PWS's largest month of production was July at 633.7 a/f and the lowest month of production being February at 416.2 a/f. With a trend line showing a slight decrease in production.



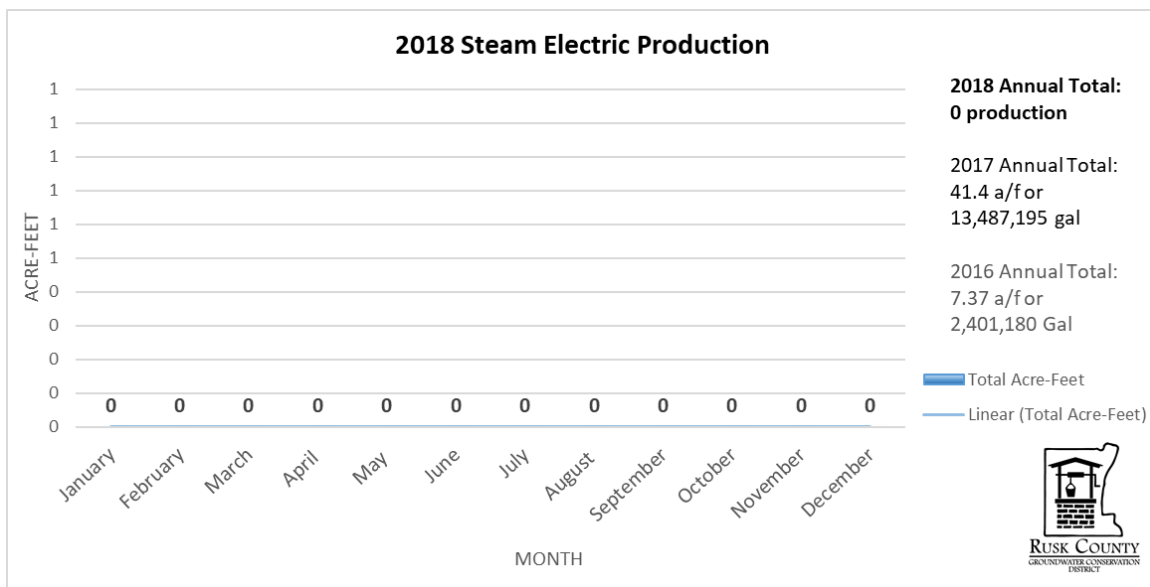
Oil & Gas production decreased from 2017 by -18.4 a/f. Oil and Gas's largest month of production was March at 7.9 a/f and the lowest months of production being June and October at 0.0 a/f. With a trend line showing a decrease in production.



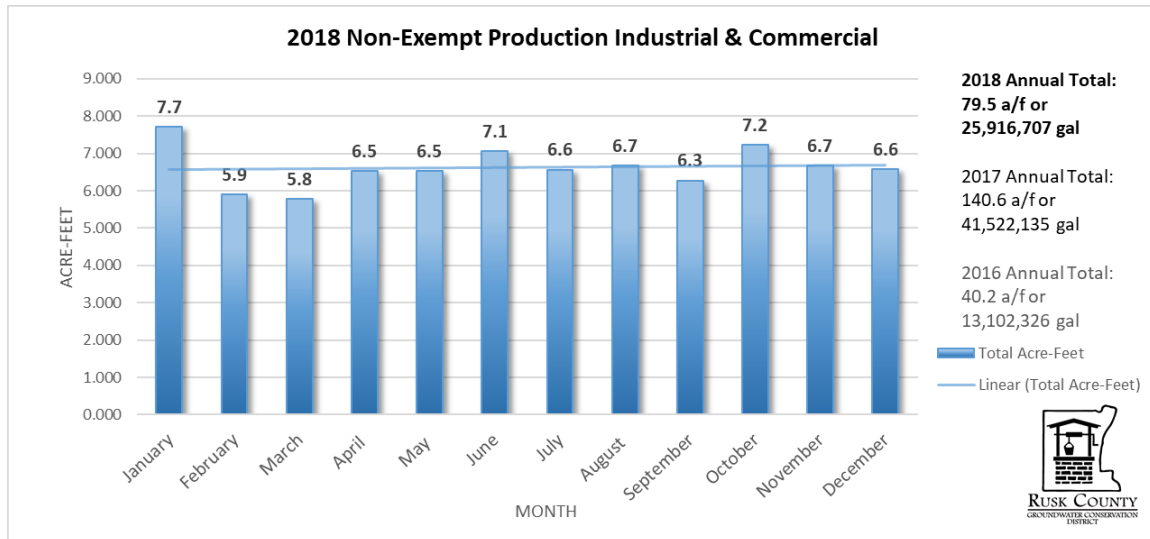
Mine production increased from 2017 by 99.4 a/f. Mining's largest month of production was January at 60.7 a/f and the lowest month of production being September at 13.7 a/f. With a trend line showing a decrease in production.



Steam Electric Production decreased from 2017 by -41.4 a/f. Steam Electric did not produce groundwater during the 2018 year.



Non-Exempt outside of PWS production decreased -89.4 a/f. Due to change in administrative recordings. Non-exempt's largest month of production was January at 7.7 a/f and the lowest month of production being March at 5.8 a/f. With a trend line showing a slight increase in production.



SUMMARY OF WATER LOSS OF RUSK COUNTY WATER UTILITIES

The District's Management Plan requires a summary of water loss from water utilities (12.2.B). The TWDB provided the District with the most current data regarding water loss as recorded through water utility surveys for Rusk County. All utilities are required to submit an audit every 5 years, the most recent being 2015. Utilities that are required to submit an audit every year are those with more than 3,300 connections or who have a financial obligation with the agency. For 2018 the most recent survey data, the City of Henderson was the only utility required to submit. In 2015, it became a requirement that water utilities respond to the water loss survey as scheduled by the TWDB.

The 2017 survey shows the City of Henderson produced 11.2% surface water and produced 88.8% groundwater, with a total real loss of 117,343,563 gallons at 16.7% of total production.

The 2018 survey shows the City of Henderson produced 18.33% surface water and produced 81.67% groundwater, with a total real loss of 121,340,421 gallons at 13.6% of total production.

The 2015 survey provided from the TWDB in 2016 was raw data before cleaned up. A clean version of the 2015 survey was provided in 2018. 21 utilities reported water loss in 2015 for a total of 25,897,290 gallons, with 100% groundwater produced and no surface water. Water loss can be accounted for line failures and repairs, meter accuracy, and other unmetered fields.

NON-EXEMPT WELLS/PERMITTED WELLS

The total permitted amount of groundwater in the District is to be compared to the Managed Available Groundwater (MAG) on an annual basis as guided by the District's Management Plan and Chapter 36 of the Texas Water Code in evaluation of the resource.

The District is to issue permits up the point that the total volume of exempt and permitted groundwater production will achieve an applicable desired future condition. Meaning, the District has the ability to permit over the MAG if there is no adverse effect on the groundwater levels as compared to the DFCs.

At this time, the District has permitted **169** non-exempt wells, totaling **9,295** a/f per-year permitted production. Due to operating permit renewals and identifying historical data for existing wells, an increase in permitted production occurred.

The District's current MAG is **20,837 a/f** per year.

Non-Exempt Wells Permitted		
Year	Amount of Permits	Permitted Production A/F
2015	36	3,411
2016	127	7,621
2017	138	7,583
2018	169	9,295

MANAGED AVAILABLE GROUNDWATER (MAG) IN RUSK COUNTY

GMA 11 adopted new DFCs January 11, 2017, the TWDB has developed and produced GAM RUN 17-024 MAG, June 19, 2017. The District adopted DFCs for Rusk County April 10, 2017.

- MAG of the Carrizo-Wilcox Aquifer from years 2020 to 2040 is **20,837 a/f**.
- MAG of the Carrizo-Wilcox Aquifer from years 2050 to 2070 is 20,818 a/f.

Rusk County MAG Values (acre-feet per year)									
Aquifer	County	Regional Water Planning Area	River Basin	Year					
				2020	2030	2040	2050	2060	2070
Carrizo-Wilcox	Rusk	I	Neches	11,769	11,769	11,769	11,750	11,750	11,750
Carrizo-Wilcox	Rusk	I	Sabine	9,068	9,068	9,068	9,068	9,068	9,068
Totals				20,837	20,837	20,837	20,818	20,818	20,818

DESIRED FUTURE CONDITIONS (DFCs) IN RUSK COUNTY

Tracking the District's groundwater elevations to the 1999 baseline year must be evaluated on an annual basis for DFC evaluation. The District must make these comparisons on an annual basis for the DFC and MAG as guided by the District's Management Plan, Chapter 36 of the Texas Water Code and best management practices of our groundwater resources. A report on the evaluation of the 2018 groundwater elevations to the DFC was provided by William R. Hutchison, Ph.D., P.E., P.G.

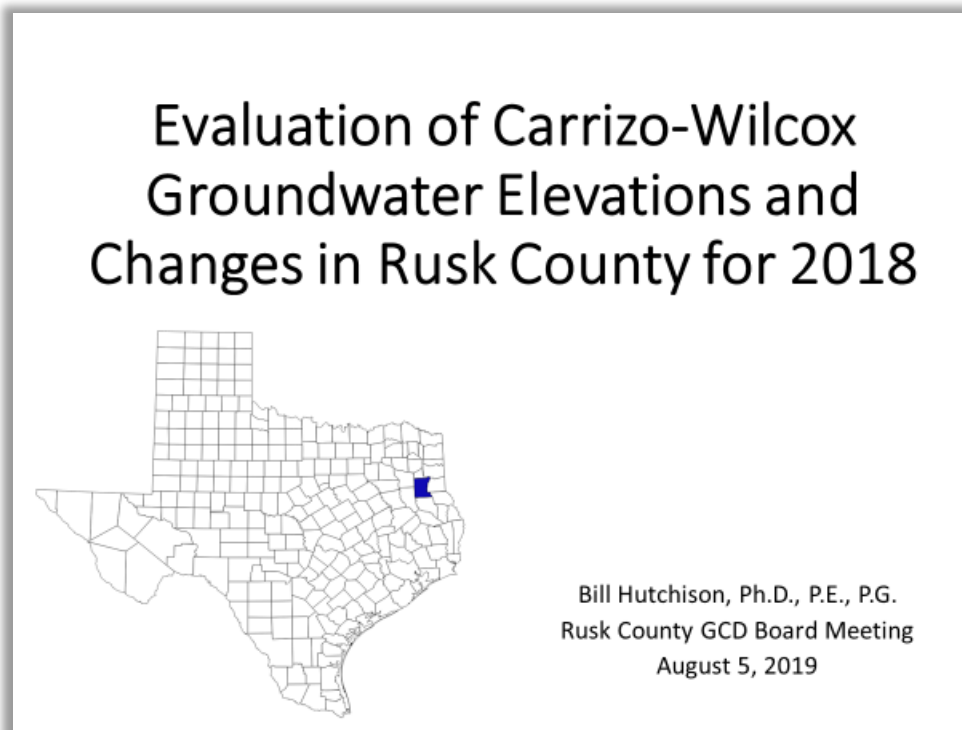
DFC for the Carrizo-Wilcox Aquifer in Rusk County from present 2018 to 2070 is **23 feet**, from the 1999 water levels.

District Rule 8.2, Actions Based on Aquifer Response to Pumping

"The District shall utilize its existing well monitoring program, to access aquifer levels in the District and the effects caused by groundwater production to enforce the District's adopted Desired Future Conditions of the aquifers and to conserve and preserve groundwater availability and protect groundwater users and groundwater ownership and rights."

The District has adopted three threshold average aquifer drawdown levels to act as triggers to provide for increased levels of District regulatory responses based on the average aquifer drawdown levels in three consecutive years. Each level is based on an average of 3 consecutive years immediately prior to reaching the trigger.

Based upon William R. Hutchison's report no threshold levels have been triggered.



Background

- Hydrex Environmental completed a comparison of actual groundwater elevation with DFCs for 2017 data
 - Relied on GIS-based interpolation and averaging
 - Missing or anomalous data can unreasonably skew results
- Proposal dated November 5, 2018 outlined an alternative approach that relies on point comparisons
 - Less reliance on averaging and interpolation
 - Missing or anomalous data are easier to handle
- Work was authorized in January 2019

Tasks

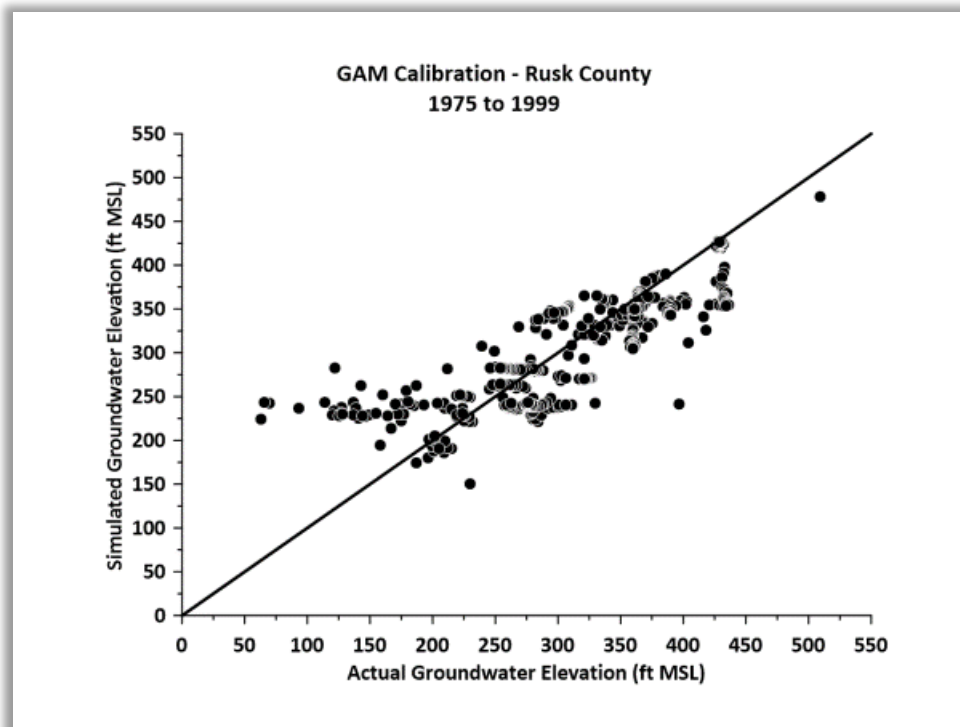
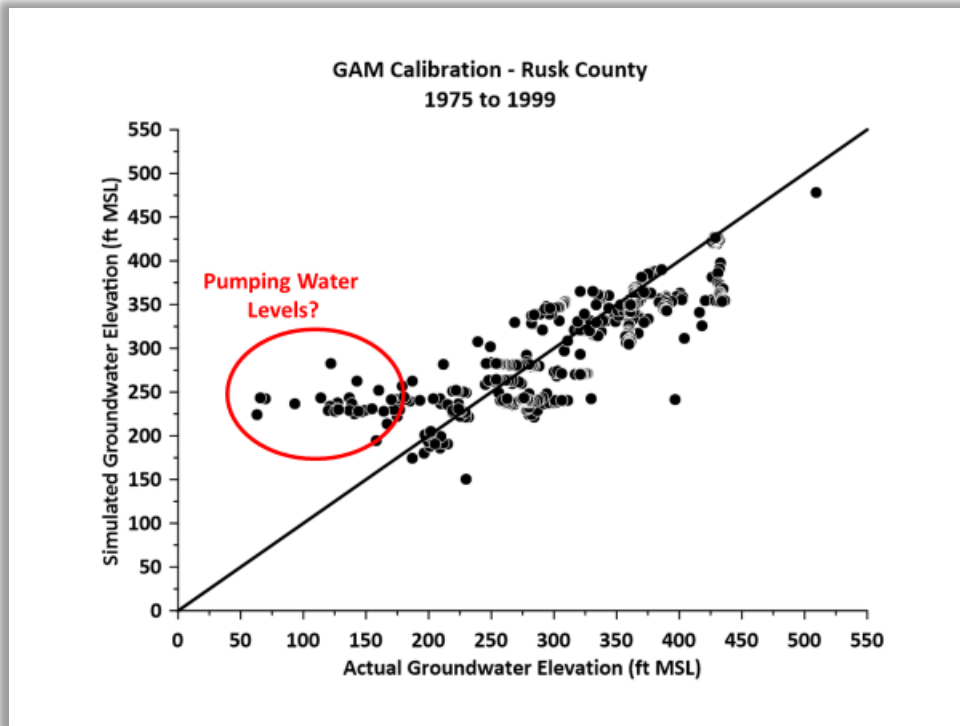
1. Compare RCGCD data with TWDB database
2. Compare Actual RCGCD data with GAM estimates from DFC simulation
3. Present summary of point by point comparison
4. Interpret comparison with rainfall data
5. Develop spreadsheet template for future updates
6. Prepare draft report
7. Present results at RCGCD Board meeting

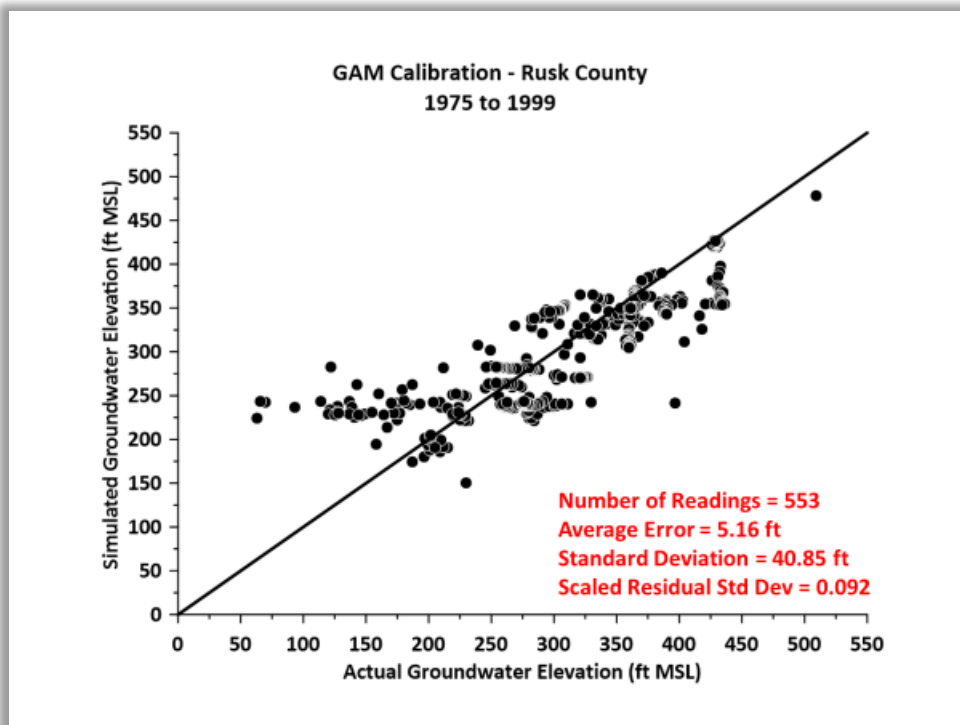
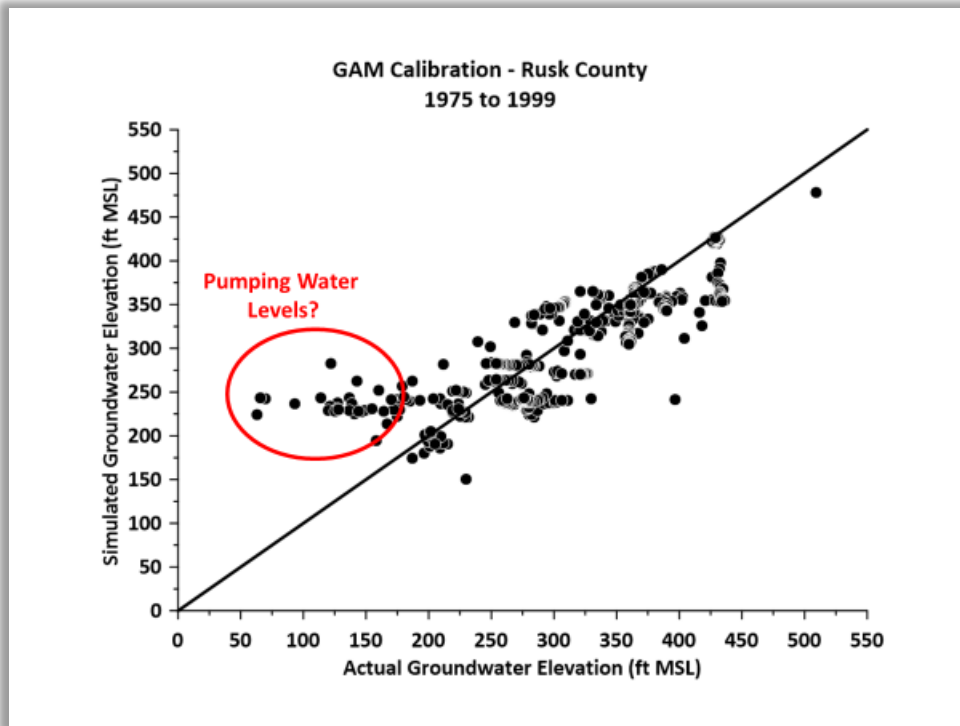
Task 1 – RCGCD Data and TWDB Data

- Well number inconsistencies
- Not fully completed

Task 2 – RCGCD Data and GAM Estimates

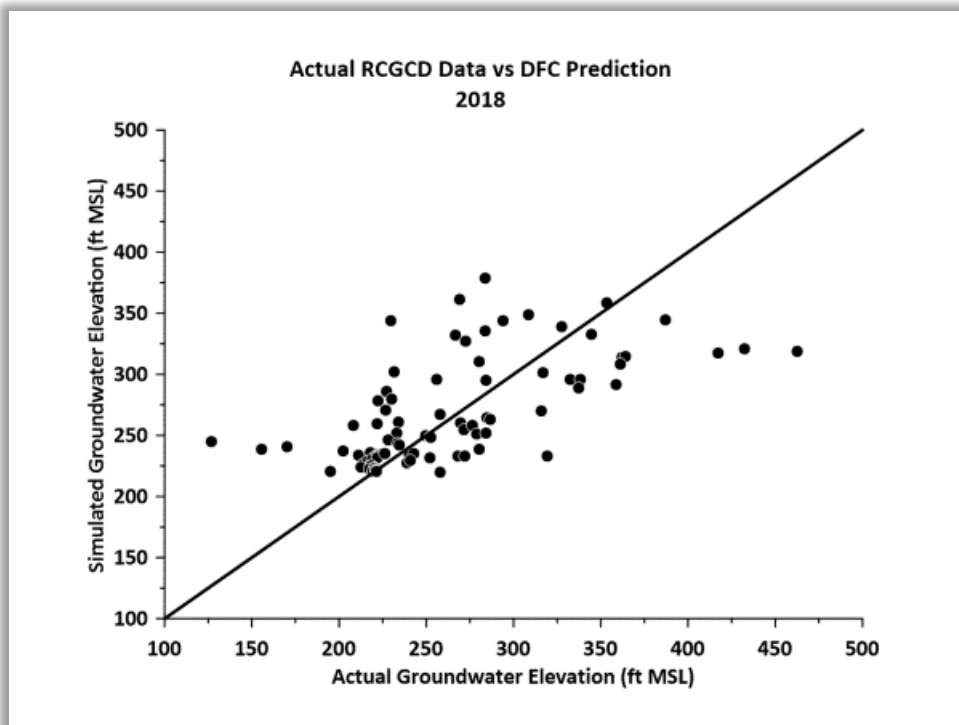
- TWDB Data and Model
 - 1975 to 1999
 - Model Calibration Assessment in Rusk County
- RCGCD Data and DFC Predictions
 - DFC prediction = annual model estimates at location of well
 - 2018 plot
 - Report will also have 2009 to 2018 plots for perspective

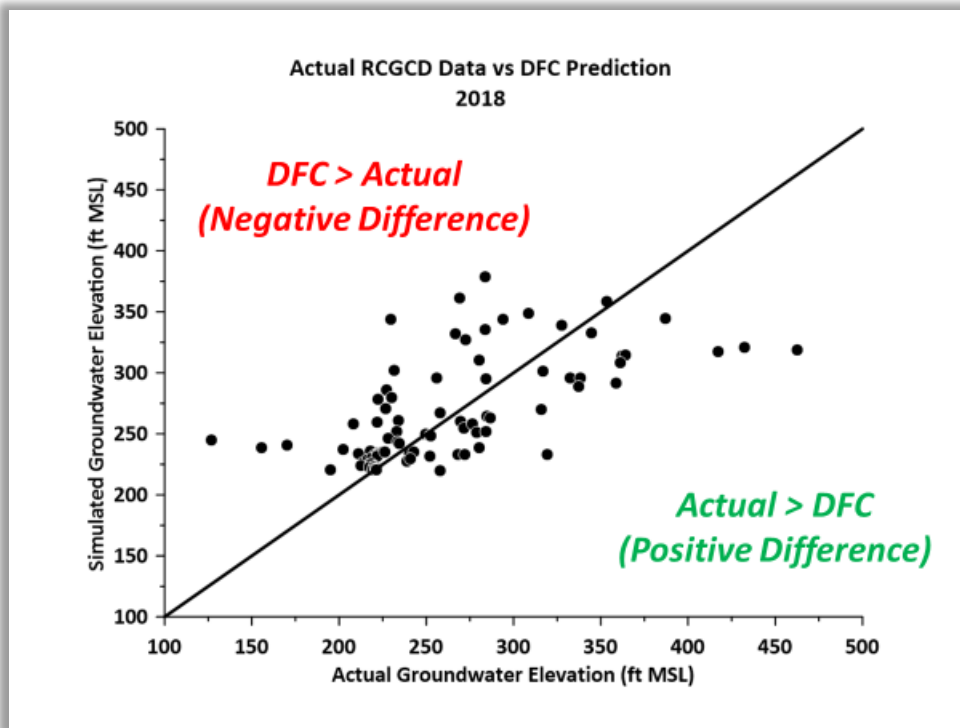




Task 3 - 2018 Comparison

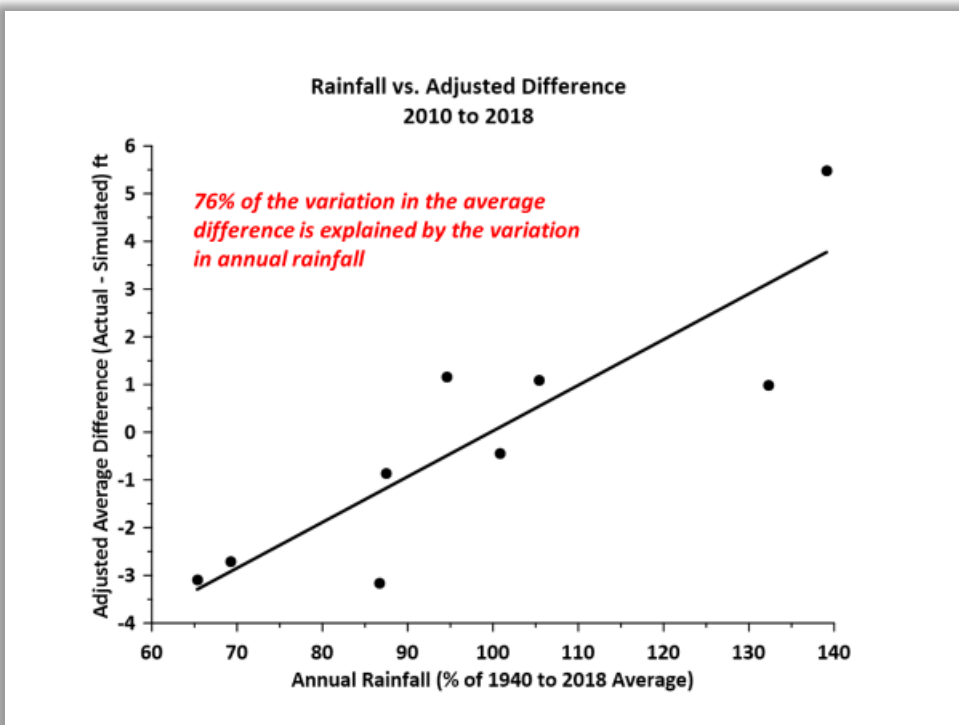
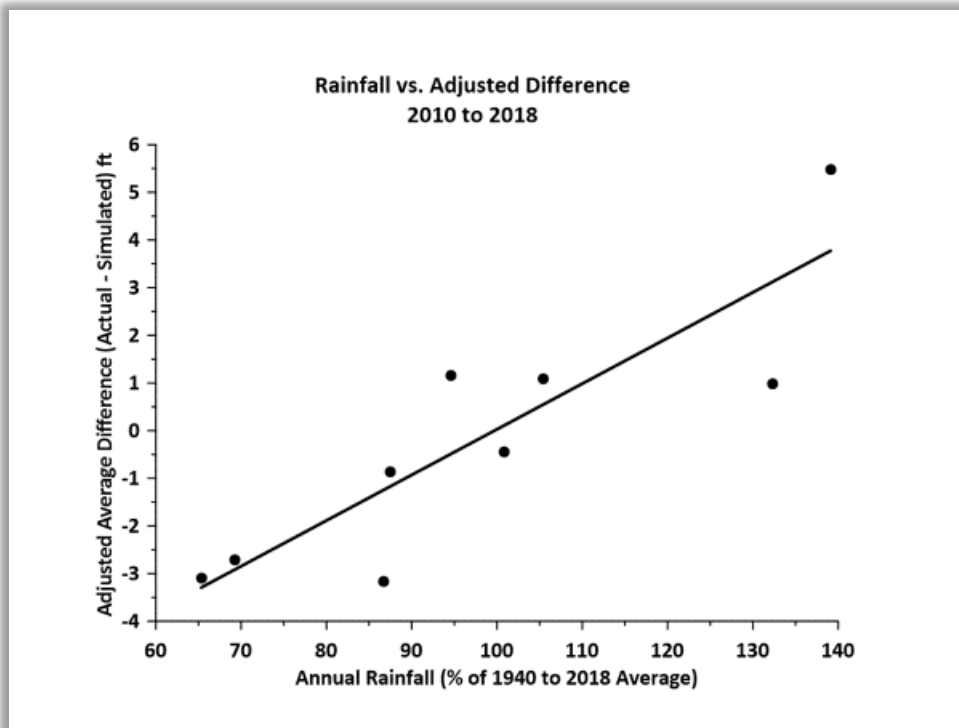
- RCGCD Data = 86 Wells
- Extracted point estimates of DFC simulation groundwater elevations from model (Scenario 4)





Task 4 – Comparison with Precipitation

- Groundwater elevation rise during wet years and fall during dry years
- Combined effect of:
 - Increase recharge during wet years
 - Decrease recharge during dry years
 - Increased pumping during dry years
 - Decreased pumping during wet years



Task 5 – Spreadsheet Template

Task 6 - Report

- Work in progress

Questions and Discussion



Bill Hutchison, Ph.D., P.E., P.G.

billhutch@texasgw.com

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APPENDIX B

DOCUMENTED NEW & EXISTING WELLS IN DISTRICT DATABASE

The District recorded 326 wells in its database. Recorded Exempt Wells totaled 309; 46 de-watering, 63 monitor, 15 domestic, 1 geothermal, 6 irrigation/livestock, 132 Rig/Supply-Oil & Gas (majority existing), and 13 other or unknown uses. Recorded Non-Exempt Wells totaled 16; 2 industrial, 2 irrigation/livestock, 11 poultry, and 1 PWS.

Documented Wells FY 2018-2019				
Well Type	Type of Use	Well Owner (Current) Name	Well ID	Date Entered
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0308	9/10/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0309	9/10/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0310	9/10/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0311	9/10/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0312	9/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0313	9/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0314	9/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0315	9/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0316	9/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0317	9/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0318	9/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0319	9/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0320	9/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0352	10/24/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0353	10/24/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0354	10/24/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0355	10/24/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0356	10/24/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0357	10/24/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0358	10/25/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0359	10/25/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0360	10/25/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0361	10/25/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0363	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0364	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0365	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0366	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0367	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0368	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0369	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0370	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0371	10/31/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0389	12/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0390	12/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0391	12/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0392	12/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0393	12/13/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0394	12/13/2018

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Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0396	12/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0397	12/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0398	12/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0399	12/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0400	12/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0401	12/14/2018
Exempt	Dewatering	North American Coal Corp, Sabine Mine	RC2018-0402	12/14/2018
Exempt	Domestic	Ami & Jamye Vidrine	RC2019-0003	1/10/2019
Exempt	Domestic	Austin Siler	RC2019-0015	1/17/2019
Exempt	Domestic	Brandon Dykes	RC2018-0383	11/16/2018
Exempt	Domestic	Clarence & Kathleen Fournier	RC2019-0052	3/14/2019
Exempt	Domestic	Courtney Serrano	RC2019-0059	4/2/2019
Exempt	Domestic	Daniel Ramos	RC2019-0107	6/13/2019
Exempt	Domestic	Darren Wiggins	RC2018-0307	9/7/2018
Exempt	Domestic	Darren Wiggins	RC2019-0093	5/9/2019
Exempt	Domestic	Felix E. Castaneda Jr.	RC2018-0347	10/16/2018
Exempt	Domestic	Higgins, Angela	RC2019-0121	7/9/2019
Exempt	Domestic	Hoover Farms	RC2019-0194	8/23/2019
Exempt	Domestic	James & Brandy Best	RC2019-0118	7/1/2019
Exempt	Domestic	James & Vicki Frizzell	RC2019-0018	1/25/2019
Exempt	Domestic	James & Vicki Frizzell	RC2019-0021	2/5/2019
Exempt	Domestic	Jeremy Chiaia	RC2018-0351	10/22/2018
Exempt	Domestic	Kenneth Harris	RC2019-0042	2/15/2019
Exempt	Domestic	Kenneth Wilton	RC2019-0075	4/24/2019
Exempt	Domestic	Kevin Harris	RC2019-0076	4/29/2019
Exempt	Domestic	Kirk Harman	RC2019-0164	7/25/2019
Exempt	Domestic	Kirke Best	RC2018-0321	9/17/2018
Exempt	Domestic	Nabor Fierros	RC2018-0322	9/17/2018
Exempt	Domestic	Richard A. Huffman	RC2018-0403	12/19/2018
Exempt	Domestic	Robert & Cindy Harris	RC2018-0346	10/15/2018
Exempt	Domestic	Stephen J. Arcement	RC2018-0404	12/19/2018
Exempt	Domestic	Stephen J. Arcement	RC2019-0002	1/7/2019
Exempt	Domestic	Taylor, Deborah	RC2019-0150	7/19/2019
Exempt	Domestic	William C. Furtick	RC2019-0019	1/28/2019
Exempt	Geothermal	Ben K. Wigand	RC2019-0060	4/5/2019
Exempt	Irrigation	Ken Evans	RC2019-0034	2/12/2019
Exempt	Irrigation	Susan Gatlin	RC2018-0324	9/18/2018
Exempt	Irrigation	Verado Energy, Inc.	RC2019-0209	8/26/2019
Exempt	Livestock	Charlie W Thompson	RC2019-0122	7/12/2019
Exempt	Livestock	Matt Fowler	RC2019-0170	8/5/2019
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Exempt	Monitor	Crossroads Small Business Solutions	RC2019-0198	8/23/2019
Exempt	Monitor	Crossroads Small Business Solutions	RC2019-0199	8/23/2019
Exempt	Monitor	East Texas Salt Water Disposal Co.	RC2018-0372	11/7/2018

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Exempt	Oil & Gas	RockCliff Energy, LLC	RC2019-0225	8/30/2019
Exempt	Oil & Gas	RockCliff Energy, LLC	RC2019-0226	8/30/2019
Exempt	Oil & Gas	Verado Energy, Inc.	RC2019-0085	5/7/2019
Exempt	Oil & Gas	Verado Energy, Inc.	RC2019-0163	7/24/2019
Exempt	Other	South Fork Estates	RC2019-0020	1/31/2019
Exempt	Other	Jerry Hall Est.	RC2019-0079	4/30/2019
Exempt	Other	City of Overton	RC2019-0082	5/3/2019
Exempt	Other	Kevin Harris	RC2019-0077	4/30/2019
Exempt	Other	Kevin Harris	RC2019-0078	4/30/2019
Exempt	Other	Stephen J. Arcement	RC2019-0001	1/7/2019
Exempt	Other	Terrie Fuller Glenn	RC2019-0010	1/14/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0149	7/18/2019
Exempt	Rig Supply	Amplify Energy Corp	RC2018-0387	12/5/2018
Exempt	Rig Supply	KJ Energy, LLC	RC2018-0362	10/30/2018
Exempt	Rig Supply	KJ Energy, LLC	RC2018-0386	11/28/2018
Exempt	Rig Supply	KJ Energy, LLC	RC2018-0405	12/21/2018
Exempt	Rig Supply	KJ Energy, LLC	RC2019-0014	1/16/2019
Exempt	Rig Supply	KJ Energy, LLC	RC2019-0117	6/27/2019
Exempt	Rig Supply	KJ Energy, LLC	RC2019-0211	8/27/2019
Exempt	Rig Supply	KJE Oil & Gas	RC2019-0043	2/18/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0325	9/20/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0340	10/10/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0341	10/10/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0342	10/11/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0343	10/11/2018

Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0344	10/12/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0345	10/12/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0348	10/19/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0349	10/19/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2018-0350	10/19/2018
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0022	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0023	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0024	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0025	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0026	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0027	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0028	2/6/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0029	2/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0030	2/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0031	2/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0032	2/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0033	2/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0035	2/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0036	2/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0037	2/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0038	2/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0039	2/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0040	2/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0044	2/22/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0045	2/22/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0046	2/25/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0047	2/26/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0048	2/26/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0049	2/26/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0050	2/26/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0051	2/26/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0108	6/13/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0109	6/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0143	7/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0144	7/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0145	7/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0146	7/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0147	7/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0148	7/17/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0151	7/19/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0152	7/19/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0153	7/19/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0171	8/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0172	8/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0173	8/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0174	8/7/2019
Exempt	Rig Supply	RockCliff Energy, LLC	RC2019-0175	8/7/2019
Exempt	Rig Supply	Sabine Oil & Gas Corporation	RC2018-0377	11/12/2018

Exempt	Rig Supply	Sabine Oil & Gas Corporation	RC2019-0185	8/21/2019
Exempt	Rig Supply	Tanos Exploration II, LLC	RC2018-0306	9/4/2018
Exempt	Rig Supply	Tanos Exploration II, LLC	RC2019-0176	8/9/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0084	5/6/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0086	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0087	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0088	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0089	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0090	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0091	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0092	5/7/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0110	6/17/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0111	6/17/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0112	6/17/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0113	6/18/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0161	7/24/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0162	7/24/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0165	7/25/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0166	7/31/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0167	7/31/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0168	7/31/2019
Exempt	Rig Supply	Verado Energy, Inc.	RC2019-0169	7/31/2019
Exempt	Unknown	Whitehead, Donald	RC2019-0074	4/18/2019
Exempt	Unknown	Jackson, Peggy	RC2019-0097	5/20/2019
Exempt	Unknown	James & Vicki Frizzell	RC2019-0016	1/25/2019
Exempt	Unknown	James & Vicki Frizzell	RC2019-0017	1/25/2019
Exempt	Unknown	Julia Watkins	RC2018-0384	11/21/2018
Exempt	Unknown	Kirk Carter	RC2018-0385	11/27/2018
Exempt	Unknown	Susan Gatlin	RC2018-0323	9/18/2018
Exempt	Unknown	Tx Dot	RC2019-0080	5/2/2019
Exempt	Unknown	Donald & Angela Hyatt	RC2019-0073	4/18/2019
Non exempt	Industrial	LOMAC Production, LLC	RC2018-0339	10/10/2018
Non exempt	Industrial	Shivers, Joey	RC2018-0338	10/2/2018
Non exempt	Irrigation	Holmes, James	RC2019-0041	2/14/2019
Non exempt	Livestock	Carroll W. Hurst	RC2019-0013	1/15/2019
Non exempt	Poultry	Chien Ho	RC2019-0101	5/28/2019
Non exempt	Poultry	Chien Ho	RC2019-0102	5/28/2019
Non exempt	Poultry	Chien Ho	RC2019-0103	5/29/2019
Non exempt	Poultry	Chien Ho	RC2019-0104	5/29/2019
Non exempt	Poultry	Chien Ho	RC2019-0105	5/29/2019
Non exempt	Poultry	Chien Ho	RC2019-0106	5/29/2019
Non exempt	Poultry	Duc Huu Tran	RC2019-0098	5/22/2019
Non exempt	Poultry	Duc Huu Tran	RC2019-0099	5/22/2019
Non exempt	Poultry	Duc Huu Tran	RC2019-0100	5/22/2019
Non exempt	Poultry	Francis Nguyen	RC2019-0081	5/3/2019
Non exempt	Poultry	Jeanne S. Smith	RC2019-0057	3/21/2019
Non exempt	Poultry	Jeanne S. Smith	RC2019-0058	3/21/2019
Non exempt	PWS	Cross Roads SUD	RC2018-0388	12/7/2018

APPENDIX C

DISTRICT SELF ACCOUNTABILITY & PERFORMANCE SHEET

Rusk County Groundwater Conservation District Self Accountability & Performance Sheet

	Regulation	Description	Occurrence	Last Completed	Compliance	
					Satisfied	Not-Satisfied
State Agencies	TWC 36.1071	District shall develop a management plan that addresses 8 management goals, approved by TWDB	5 years	12/4/2018	X	
	TWC 36.061	TCEQ has the authority to enforce District's compliance with statutory requirements. May implement an enforcement action for failure to comply with TWC, Ch. 36.	n/a	n/a	n/a	
Legislature & Judiciary	TWC 36.302	Legislative Audit Review, Districts are subject to state auditor review. Determines if management plan goals are being achieved and if District is operational.	6 years+	8/1/2010	X	
Local Accountability	TWC 36.064, 36.101	Notice of Meetings & Hearings (rules for details)	as appropriate	8/5/2019	X	
	TWC 36.051	Board of Director four year terms. Elections and appointments. Avoidance of Dual-Service.	2 years	11/6/2018	X	
	TWC 36.056	Board review of GM	annually	11/6/2018	X	
	TWC 36.065	Records Retention adoption	as needed	7/11/2016	X	
	TWC 36.153	Annual financial audit (available on web)	annually	3/20/2019	X	
	Gov. Code 2256 & 2257	Requires each District to adopt a written Investment Policy with annual review.	annually	7/15/2019	X	
	Comptroller	Tax Rate to be adopted annually	annually	8/26/2019	X	
	Rule 31 TAC, 293(J)(3)	Budget to be adopted annually	annually	8/26/2019	X	
	TWC 36	Accounting Records prepared Monthly	monthly	8/6/2019	X	
	TWC 36	GMA Joint Planning, at least annually	annually	7/16/2019	X	
District Policies & Rules	TWC 36.064	At least one board meeting per Quarter	Quarterly	7/16/2019	X	
	Inv. Policy	The District shall maintain at least one investment officer and every 2 years complete at least 4hours of continual education.	2 years	6/4/2019	X	
	Inv. Policy	Investment reporting quarterly	quarterly	7/15/2019	X	
	Inv. Policy	Investment Policy to be reviewed annually	annually	7/15/2019	X	
	Rules	Election of officers in November	annually	11/12/2018	X	
	District DCP	Drought Conintgency Plan to be evaluated annually.	annually	5/13/2019	X	
	MP	Management Plan Objectives & Goals to be attained annually, documented in annual report	annually	11/12/2018	X	
	MP	Annual Report of District Operations presented within fisrt quarter of next fiscal year	annually	11/12/2018	X	
	Code of Ethics	Budget/Audit Committee to be appointed, meet & review financials, budget, tax rate, etc. at least annually	annually	5/13/2019	X	
	Emp. Handbook	Employee Evaluations	annually	9/7/2018	X	

*This list is to be inserted in the Annual Report as an additional accountability measure to ensure communication of the GM & Board in compliance of all applicable laws, rules, and policies.