

SUTTON COUNTY

**Underground Water
Conservation District**

ANNUAL REPORT 2018

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Purpose and Scope:

This Annual Report on the Sutton County Underground Water Conservation District's (District or SCUWCD) is on achieving its management goals and objectives for the year 2018. It is presented to the Board of Directors of the District (the Board) in accordance with the District's Management Plan (Methodology for Tracking Progress, pg. 18) Texas Water Code, Chapter 36.1071. The original Management Plan for the District was adopted in 2004. It has been amended and readopted, every five years, November 12, 2013 is the latest revision.

The Sutton County Underground Water Conservation District (the District) was created by the 69th Texas Legislature (1985) under the authority of Section 59, Article XVI, of the Texas Constitution, and in accordance with Chapter 51 and 52 of the Texas Water Code. Note, in 1995, by Acts of the 74th Legislature, Chapter 52 of the Texas Water Code was repealed and replaced with Chapter 36 of the Texas Water Code effective September 1, 1995. The District, a local government agency, provides for the conservation, preservation, protection, recharge and prevention of waste of the underground water reservoir, Edwards-Trinity (Plateau) Aquifer, located under the District; by consistently adhering to Chapter 36 of the Texas Water Code (TWC). The District conducts administrative and technical activities and programs to achieve these purposes by collecting, archiving and analyzing water well and aquifer data. It regulates water well drilling and production of permitted, non-exempt wells, promoting the capping or plugging of abandoned wells. The District also provides information and educational material to local property owners, interacting with other governmental or organizational entities, and undertaking other groundwater-related activities that may help meet the purposes of the District. The District also strives to maintain groundwater ownership and rights of the landowners as provided in the TWC §36.002.

District Board Meetings for Year 2018

January 9, 2018	Board Meeting
February 13, 2018	Board Meeting
March 13, 2018	Board Meeting
April 10, 2018	CANCELLED
May 8, 2018	Board Meeting / Joe David Ross Retirement
June 12, 2018	Board Meeting
July 17, 2018	Board Meeting
August 14, 2018	Board Meeting / Tax Rate & Budget Hearing
September 11, 2018	Board Meeting / Management Plan Hearing
October 9, 2018	Board Meeting / Management Plan Hearing / Audit
November 13, 2018	Board Meeting
November 13, 2018	Public Hearing on Proposed Rules
December 11, 2018	CANCELLED

Requirements of District Management Plan:

Goal 1.0 – Provide for the Efficient Use of Groundwater (36.1071(a)(1))

1.1 - Provide programs to improve public awareness of efficient use, wasteful practices and conservation measures.

DATE:	PROGRAM:	PURPOSE:	NOTES:
April 12, 2018	5 th Grade Field Day	Visit to Eddie Sawyer's ranch	Partner with AgriLife Ext. & NRCS
November 19, 2018	4 th Grade Water Fair	Water Field Day	Partner with AgriLife Ext. & NRCS

1.2 - Each year the District will publish one article or newsletter on water conservation.

DATE:	SOURCE:	TITLE:	NOTES:
February 12, 2018	Karst Khronicles	E-Newsletter	M. Allen
June 5, 2018	Karst Khronicles	E-Newsletter	M. Allen

Goal 2.0 - Control and Prevent Waste of Groundwater (36.1071(a)(2))

2.1 – The District provides educational leadership to citizens within the District concerning this subject. The activity is accomplished annually through at least one printed publication, such as a brochure, and public speaking at service organizations and public school.

DATE:	EVENT:	PURPOSE:	NOTES:
March 26, 2018	High School Pres	Mrs. Owen's Environmental Class	
July 26, 2018	4H Water Ambassador	Tour of the Caverns of Sonora – discussion on groundwater hydrology	
December 12, 2018	High School Pres	Mrs. Owen's Environmental Class	

Goal 3.0 - Natural Resource Issues (36.1071(a)(5))

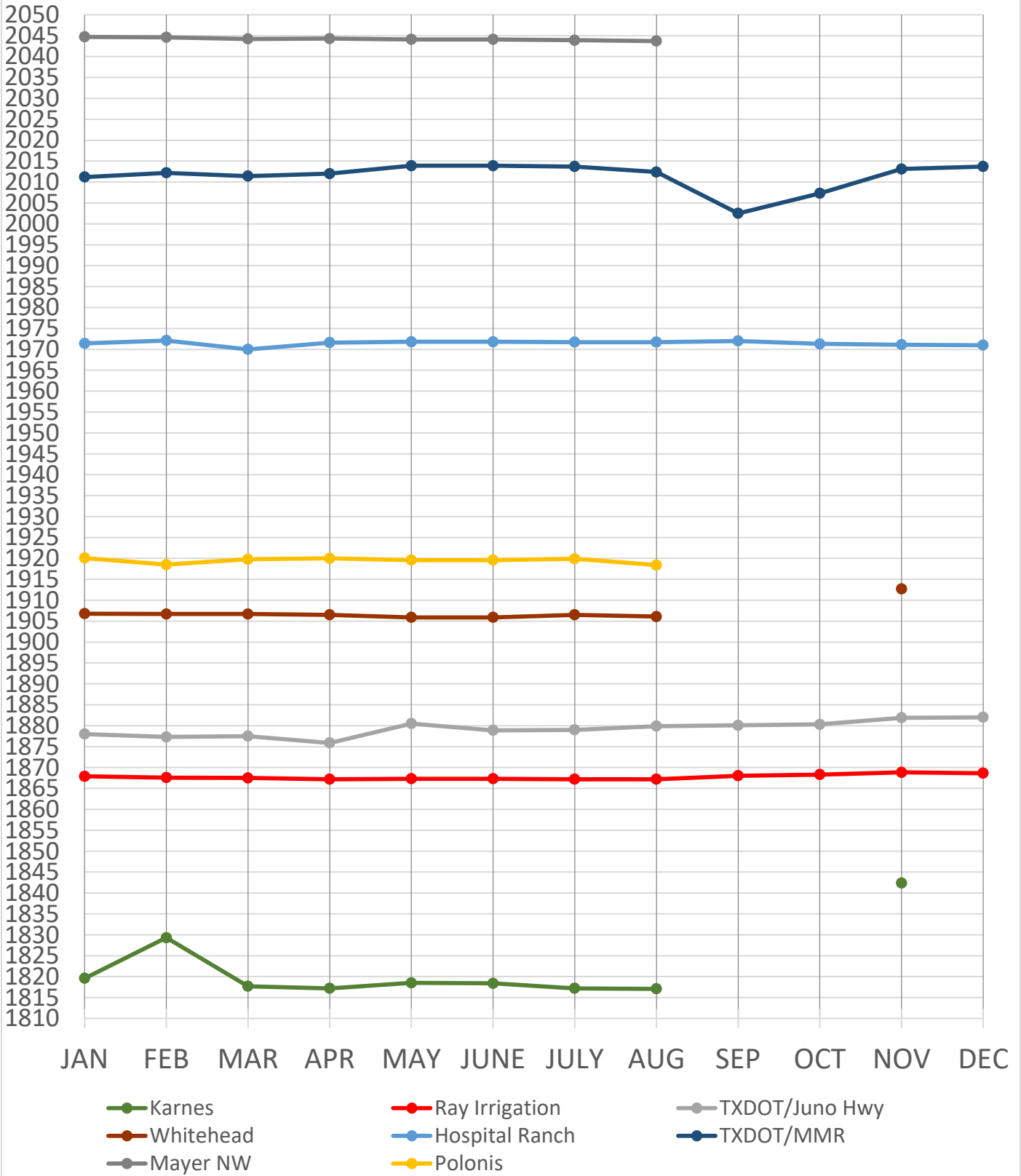
3.1 – Measure, monthly, the wells in the water level monitoring network within the District with steel tape, E (Electric)-line, and download data from electronic sensors. The table below contains this information.

OWNER	WELL #	ASL	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Archer	55-29-810	2332.0	279.7	279.0	278.5	280.3	280.6	279.2	283.4	279.1	277.9	no data	238	no data
Co. Cemetery	55-27-615	2143.7	169.9	170.3	170.3	170.8	170.8	170.8	171.2	171.3	167.1	no data	147.33	147.9
Teaff	55-27-616	2253.4	262.2	262.4	262.2	262.1	262.0	262.1	261.9	261.9	260.7	250.76	243.4	244.43
Crites	55-27-622	2133.4	166.2	166.7	166.5	167.6	167.5	168.8	169.5	168.9	156.7	no data	145.5	145.2
Karnes	55-33-806	1988.4	168.8	159.1	170.7	171.2	169.9	170.0	171.2	171.3	no data	no data	146	no data
Ray Irrigation	55-42-502	2087.6	219.7	220.0	220.1	220.4	220.3	220.3	220.4	220.4	219.6	219.28	218.76	218.96
Shurley/Hud dleston	55-35-210	2059.2	154.5	—	154.7	154.9	154.9	155.1	155.4	155.6	152.2	no data	146.3	no data
TXDOT/Juno Hwy	55-43-205	2083.0	205.0	205.7	205.5	207.1	202.5	204.1	204.0	203.1	202.9	202.7	201.1	201
Whitehead	55-25-902	2040.6	133.8	133.9	133.9	134.1	133.9	134.7	134.1	134.5	no data	no data	127.9	no data
Hospital Ranch	55-25-406	2213.6	242.2	241.5	243.6	242.0	241.9	241.8	241.9	241.9	241.6	242.3	242.5	242.62
Brockman	55-45-305	2265.2	257.2	257.4	257.7	259.1	259.1	257.0	257.5	257.0	255.3	no data	no data	no data
Ross House	55-38-402	2207.2	189.9	190.0	190.6	190.1	190.1	194.5	190.7	190.7	184.6	no data	162	no data
Robert Pfluger	55-37-705	2288.6	312.7	—	314.9	314.5	313.8	313.9	313.9	313.0	no data	no data	285	no data
Glen Fisher	55-28-302	2365.0	230.3	230.7	231.4	232.3	232.1	232.3	232.6	232.6	232.3	281.5	278.7	277.97
Bill Stewart	55-20-904	2367.3	249.4	250.0	250.8	251.9	250.8	252.1	257.8	255.7	no data	no data	227.9	no data
Dick Street	55-22-901	2456.3	275.8	276.1	277.0	277.4	277.3	266.3	266.4	266.6	no data	no data	254	no data
Bill Tittle	55-19-903	2205.6	200.8	200.7	200.8	200.9	200.9	201.0	201.1	201.1	no data	no data	194.42	183.6
Jones, Claire	55-27-909	2099.6	146.0	146.4	145.8	147.2	145.9	146.0	146.8	146.5	142.6	136.04	129.32	129.02
TXDOT/MMR	55-18-715	2158.7	147.5	146.5	147.3	146.7	145.2	144.8	145.0	146.3	156.2	151.4	145.6	145.01
Mayer NW	55-17-504	2233.6	188.9	189.0	189.4	189.3	189.4	189.5	189.7	189.9	no data	no data	176.5	no data
Hardgrave	55-30-604	2371.0	257.2	257.6	257.9	258.2	no data	257.8	257.9	No data	no data	no data	243.7	no data
Condra	55-29-607	2300.7	201.9	202.6	202.9	203.4	203.7	203.9	204.2	203.9	182.3	171.05	160.69	171.9
Ross	55-38-405	2323.0	269.6	270.2	270.4	270.6	270.4	270.6	270.3	270.5	269.8	260.4	243.7	246.78
TXDOT/427	55-39-406	2191.6	159.1	159.6	159.2	159.4	159.3	159.7	159.8	159.9	158.7	157.7	156	155.8
Highmount	55-27-223	2328.5	323.9	324.3	324.2	324.2	324.1	323.6	323.6	323.7	323.5	323.2	318.62	316.94
Fisher-Fawcett	55-26-905	2170.8	271.5	271.2	272.0	273.5	272.9	272.2	271.4	271.1	270.6	281.56	270	269.79
Polonis	55-33-205	2290.0	369.9	371.5	370.2	370.0	374.3	370.4	370.1	371.6	no data	no data	no data	no data
City Well #3	55-27-603	2260.0	288.4	288.7	288.8	289.3	289.5	289.8	289.9	289.8	no data	no data	no data	no data
SUTUWCD DCW	55-27-322	2146.0	163.4	163.5	163.6	163.7	163.8	163.9	163.9	164.0	163.5	151.56	143.27	143.2
Nolan Ryan Ft. Terrett #7	55-39-505	2148.0	128.3	128.0	127.9	128.0	128.2	127.8	128.1	no data	no data	no data	112.8	no data

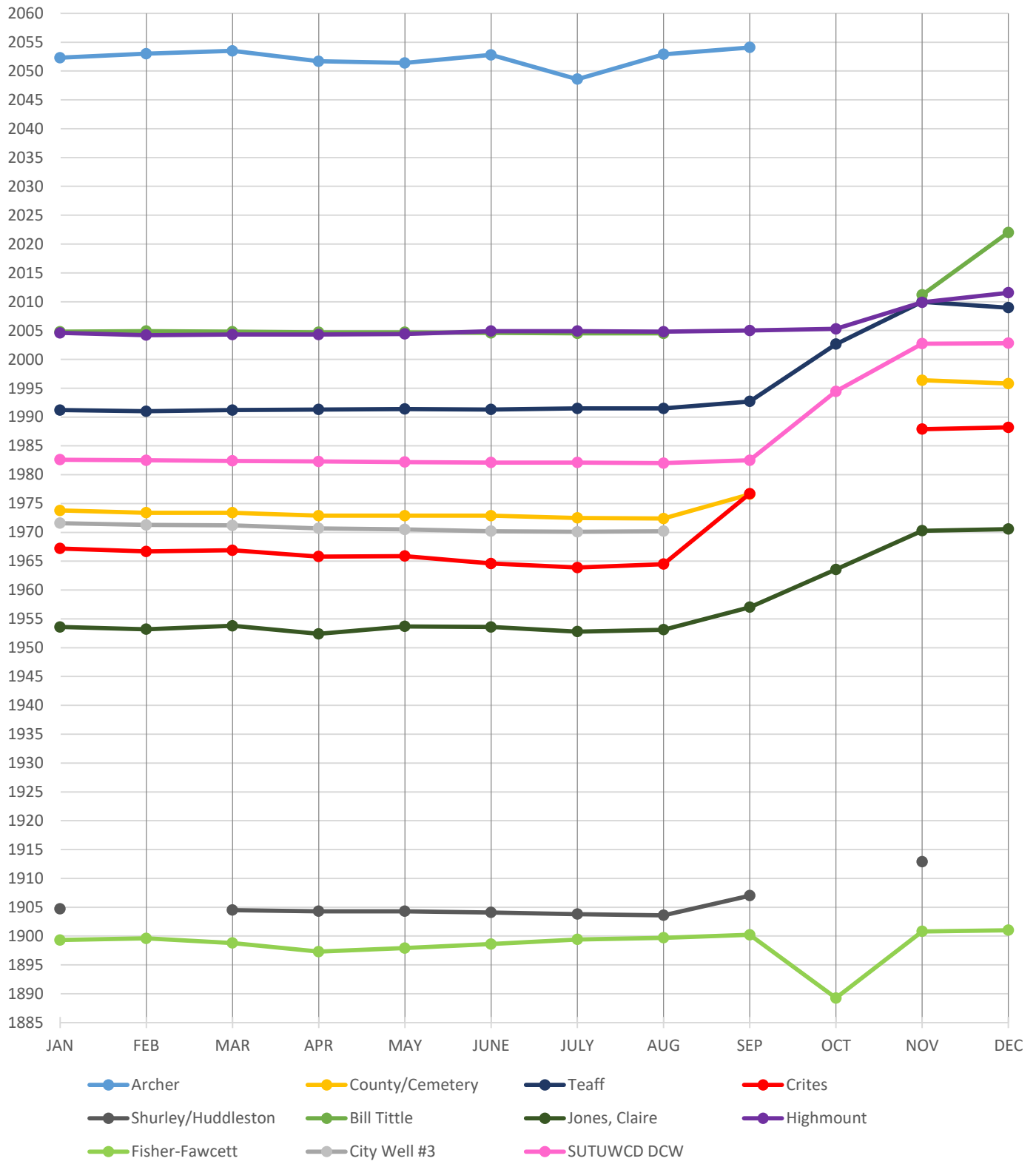
*measurements in feet below ground level

**Certain weather conditions inhibit the District’s ability to collect data and therefore are marked as ‘no data’

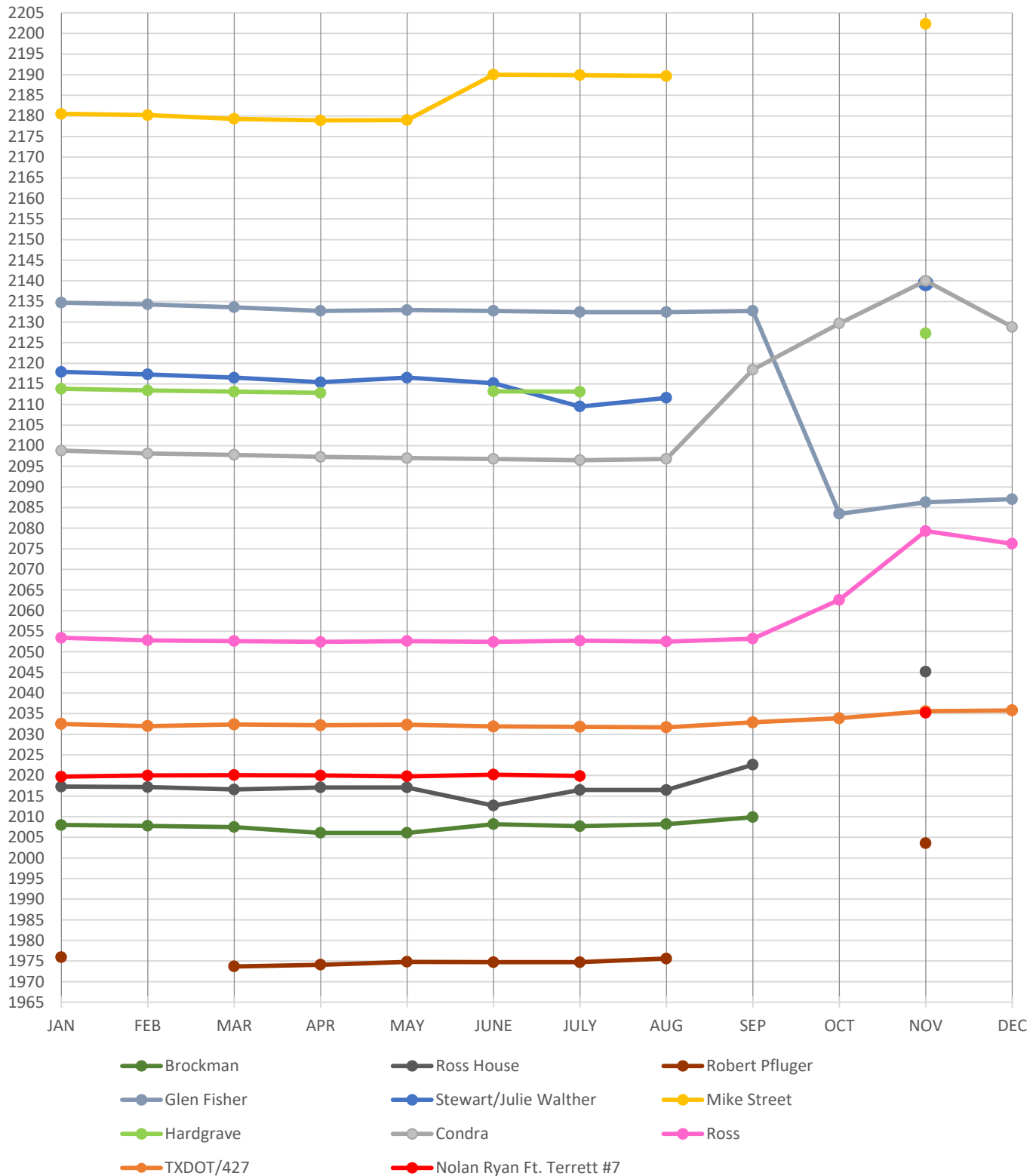
Western Section of Sutton County Water Level Monitoring Wells 2018



Central Section of Sutton County Water Level Monitoring Wells 2018

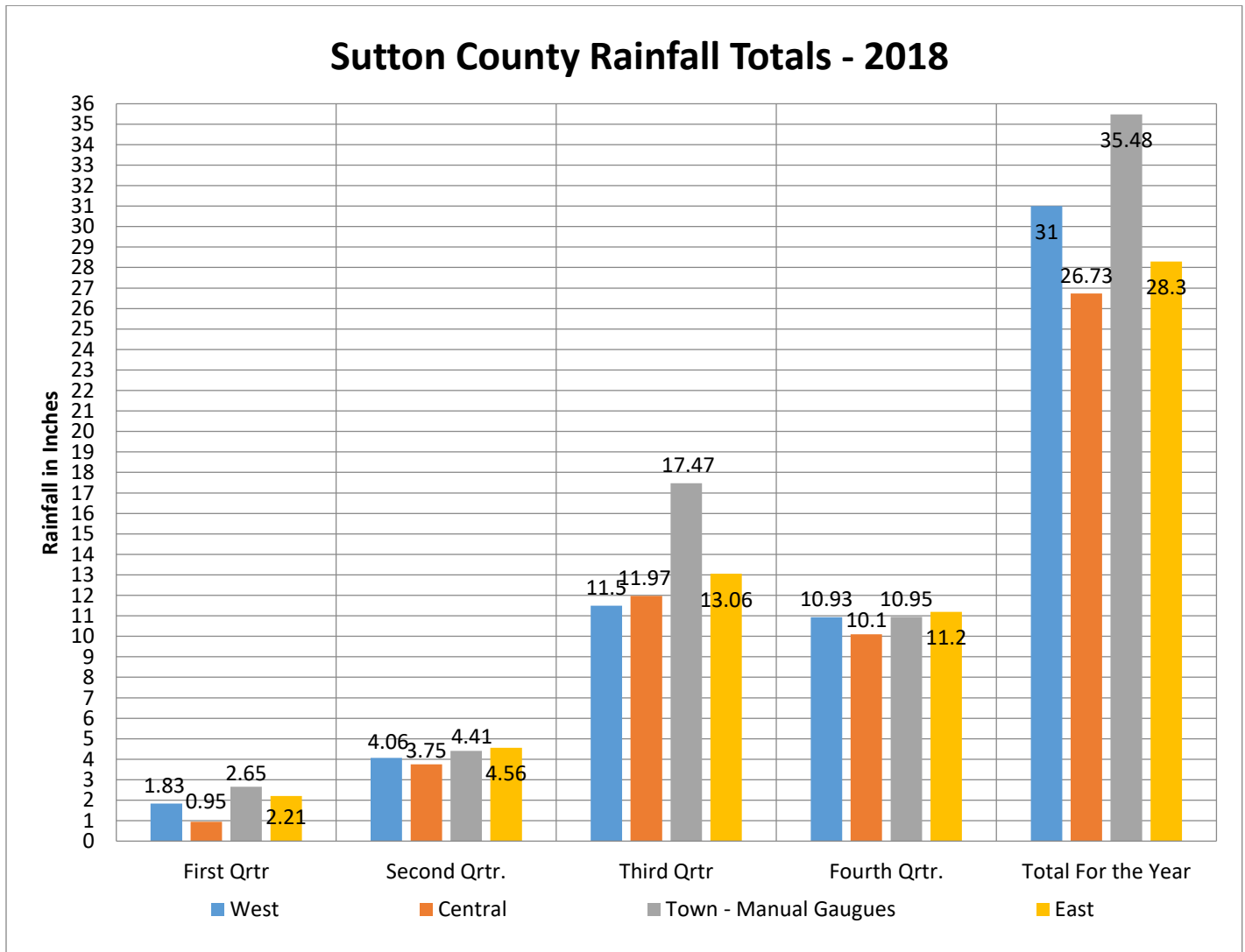


Eastern Section of Sutton County Water Level Monitoring Wells 2018



**Due to weather and/or measurement error, certain wells were not measured every month. For more details check in District files for specific well dates that are not filled.

3.2. – Maintain a district-wide rainfall event network using volunteers who monitor and report data they collect along with automatic digital rainfall collectors for the evaluation of aquifer recharge.



The District reports the monthly rainfall results on each rain gauge, then graphs this information quarterly, as shown in the figure above. This data includes the automatic rain gauges, which are measured the third week of the month.

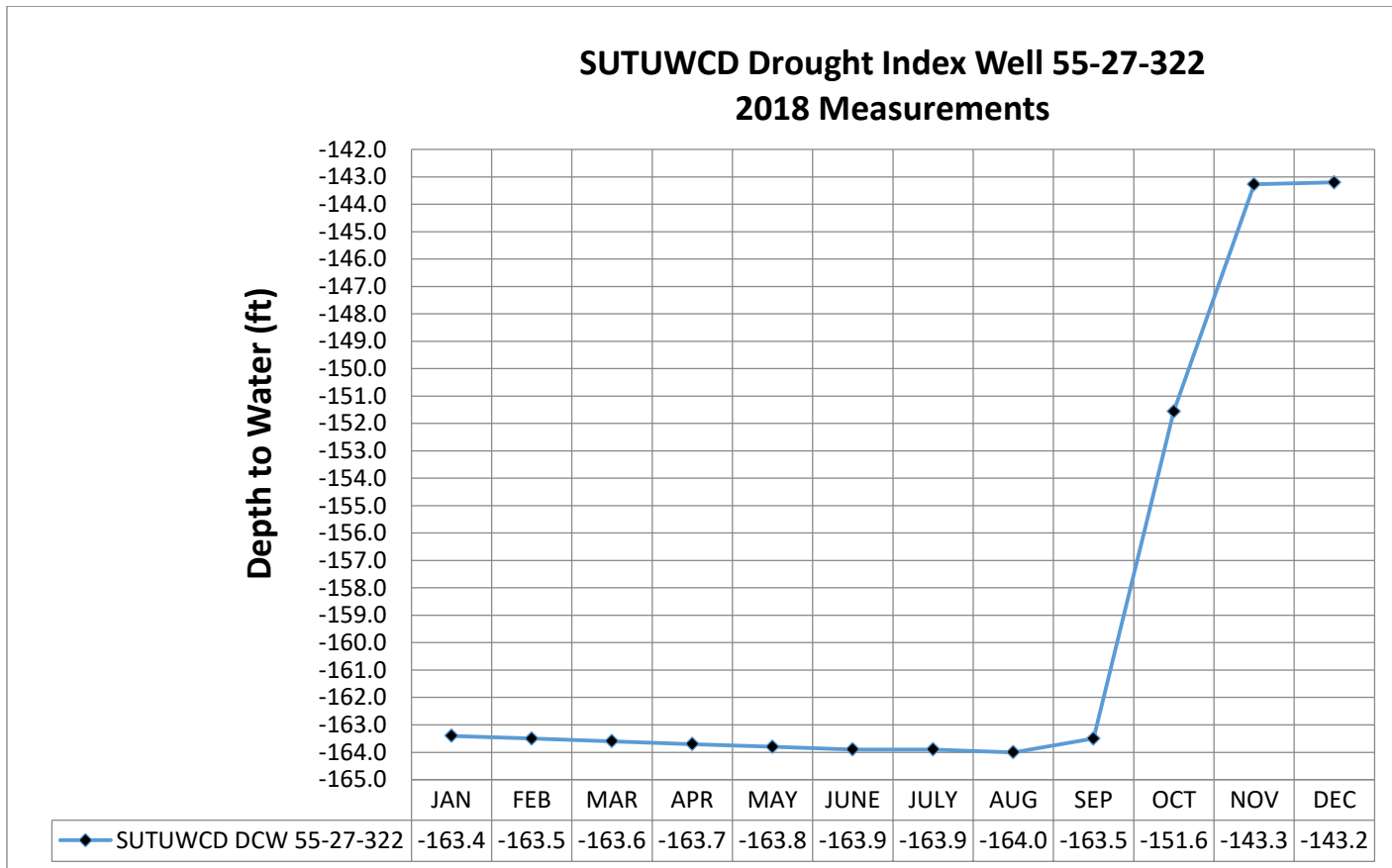
3.3 – Annually sample 33% of the 60 operating monitor wells in the District’s water quality monitoring network. The District is an active participant in the TWDB water quality program providing it with water quality information each year.

The results of the annual water quality monitoring network can be found in the District’s files. This data is analyzed by the District’s staff and the Texas Water Development Board for trends in the water chemistry of the aquifer.

Goal 4.0 - Drought Conditions (36.1071(a)(6))

4.1 – The District has an approved Drought Contingency Plan compliant with TCEQ standards, it also has a drought index well with trigger levels referenced in the plan. Water levels of monitored wells and Drought Index Well are reported monthly. If there are changes that warrant actions to restrict water usage the appropriate trigger in the plan is activated.

There were no triggers or changes that warranted actions to restrict water usage in Year 2018.



This graph illustrates the water levels, over time, in the aquifer at the Drought Index Well increased 20.2 feet during 2018. This is more than likely due to the flood that Sutton County experienced on September 21, 2018. Citizens in Sutton County, especially in the northern section of the County, reported rainfall totals up to 10 inches in 4 hours that Friday. Rainfall continued more frequently but in less quantities for the rest of the year. These rainfall events are shown in our Rainfall monitoring system data, found in Goal 3.2.

Goal 5.0 - Conservation and Precipitation Enhancement (36.1071(a)(7))

5.1 – Provide and distribute literature on water conservation by publishing at least one newsletter or newspaper article annually.

DATE:	SOURCE:	TITLE:	NOTES:
February 12, 2018	Karst Khronicles	E-Newsletter	M. Allen
June 5, 2018	Karst Khronicles	E-Newsletter	M. Allen

*“The Karst Khronicle” are distributed through email to subscribers.

5.2 - The District participates in the West Texas Weather Modification Association for precipitation enhancement.

The District’s General Manager reports monthly to the Board of Directors on West Texas Weather Modification Association activities when applicable.

The 2018 Annual Report from the West Texas Weather Modification Association can be found on their website at http://wtwma.com/analysis_and_research.htm and in the District’s files. The 2018 Annual Report has not been published. When published, the General Manager will distribute to the Board. The 2018 monthly reports can be found here: http://wtwma.com/operations_page.htm.

Seeding Events in Sutton County:

DATE:	NUMBER OF FLARES:	NUMBER OF CLOUDS:
June 3, 2018	14 (+1 hygroscopic)	1
July 6, 2018	12 (+1 hygroscopic)	6
July 7, 2018	4	12
August 20, 2018	6	4
September 2, 2018	22	8

Goal 6.0 – Addressing in a Quantitative Manner the Desired Future Conditions (DFC) of the Groundwater Resources (36.1071(a)(8))

The District covers part of the Edwards-Trinity (Plateau) Aquifer and is within Groundwater Management Area (GMA) 7. The Edwards-Trinity (Plateau) Aquifer is the largest aquifer not subdivided into multiple GMAs.

Total net drawdown for the Edwards-Trinity (Plateau)/ Pecos Valley Alluvium Aquifers are not to exceed an average of eight (8) feet in 2070, as compared with 2010 aquifer levels. Specifically for Sutton County, drawdown is not to exceed an average of six (6) feet.

Groundwater Management Area 7:

Groundwater Management Area 7: Meetings

DATE:	LOCATION:	PURPOSE:
March 23, 2018	TAMU Agrilife - San Angelo	Joint Planning
September 20, 2018	TAMU Agrilife - San Angelo	Joint Planning

Groundwater Management Area 7: Desired Future Conditions (DFC)

The District shall participate in the joint planning process in Groundwater Management Area (GMA) 7 as defined per TWC § 36.108, including establishment of Desired Future Conditions (DFCs) for management areas within the District. In its evaluation of potential DFCs, the District shall consider results from groundwater availability models, scientific reports, and the conditions of the aquifer.

Edwards-Trinity (Plateau)/ Pecos Valley Alluvium Aquifers:

Total net drawdown not to exceed an average of eight (8) feet in 2070, as compared with 2010 aquifer levels, with specific county drawdowns as follows:

COUNTY	GCD	DROWDOWN (feet)
Coke	Coke County UWCD	0
Crockett	Crockett County GCD	10
Ector	-	8
Edwards	Real-Edwards C&RD	2
Gillespie	Hill Country UWCD	5
Glasscock	Glasscock GCD	40
Irion	Irion County WCD	10
Kimble	Kimble County GCD	1
Menard	Menard County UWD	1
Midland	-	12
Pecos	Middle Pecos GCD	12
Reagan	Santa Rita UWCD	42
Real	Real-Edwards C&RD	4
Schleicher	Plateau UC&SCD	8
Sterling	Sterling County UWCD	7
Sutton	Sutton County UWCD	6
Taylor	-	0
Terrell	Terrell County UWCD	2
Upton	-	16
Uvalde	Uvalde County UWCD	2

Statewide Participation:

The District participates from time to time, as appropriate, in local and statewide events where it is beneficial to the District's goals and mission. The District participated in these statewide events in 2018 listed below:

DATE	LOCATION	TITLE	ATTENDEE	NOTES
01/31/2018	Austin	TAGD Meeting	M. Allen J. Polonis	
03/15/2018	Big Spring	Region F Meeting	M. Allen J. Polonis	
03/22/2018	San Angelo	GMA 7 Meeting	M. Allen J. Polonis	
03/26/2018	Sonora	Mrs. Owen's Environmental Studies Class	M. Allen	
04/05-06	College Station	Bush School Water Conf.	M. Allen J. Polonis	
05/09/2018	San Angelo	WTRGMA Meeting	M. Allen J. Polonis	
05/22/2018	Austin	TAGD Meeting	M. Allen J. Polonis	
05/23/2018	Menard	House Natural Interim Hearing	M. Allen	HNRC Meeting
06/04/2018	Austin	Senate Interim Hearing	M. Allen	
07/26/2018	Menard - Sonora	4-H Water Ambassadors	M. Allen	Travel to Caverns of Sonora
08/28-31	San Antonio	TAGD Groundwater Summit	M. Allen J. Polonis	
09/13/2018	Del Rio	House Natural Interim Hearing	M. Allen J. Polonis	
09/20/2018	San Angelo	GMA 7 Meeting	M. Allen	
11/15/2018	Big Spring	Region F Meeting	J. Polonis	

Permits/Registrations Issued during 2018 Year:

Well #	Owner Name	Use	GPM	Well Depth	Date Drilled
55-29-413	JL Bar- Archer	livestock	15	380	1/21/18
55-37-304	JL Bar - Archer	livestock	20	380	1/21/18
55-37-209	Evelyn Ashley	domestic	10	380	1/5/18
55-44-3xx	James & Norma Solise	domestic		425	2/22/18
55-30-708	David Knowles	livestock	10	390	4/12/18
55-44-3xx	Stockman, James G.	domestic	10	405	4/2/18
55-36-511	Vega/Altamesa (Crenwelge)	livestock	50	385	7/2/18
55-36-510	Vega/Altamesa (Crenwelge)	livestock	25	390	6/25/18
55-19-634	Hermelina Talamentez	domestic	7	410	7/24/18
55-38-212	Gene F. III Thompson	livestock		350	7/11/18
55-37-2xx	JoAnn Walker	domestic	10	385	7/19/18
55-39-327	Wesley Bean	livestock	2	220	3/7/18
55-39-328	Frijole Enterprises	domestic	2.5	100	3/15/18
55-39-329	Frijole Enterprises	livestock	2	200	3/16/18
55-43-6xx	David Feinberg (ACW)	domestic	4	405	7/24/18
55-22-7xx	Billy & Bobby Dictson	domestic	12	390	8/20/18
55-20-7xx	Donald Plummer	domestic	20	360	11/29/18
55-20-7xx	Donald Plummer	livestock	50	400	11/30/18
55-44-3xx	Steve Rieger	domestic	5	405	10/1/18
55-21-904	Michael Allemant	domestic	5	360	7/18/18
55-20-7	Anthony Mungia	livestock		380	10/3/18
55-30-9	Joe Rajchel	domestic	15	240	11/28/18
55-34-6	Mary Anne Deaton	livestock		240	10/1/18
55-20-7xx	Alvin, Carrell	domestic	8	410	12/21/18
55-18-9xx	David Walsh	domestic	10	450	10/29/18

PLUGGED WELLS IN 2018

COMPLETION DATE:	TYPE:	OWNER:	USE:	DEPTH:	SWN:	PLUG REPORT:
01/04/2018	Exempt	Evelyn Ashley	Domestic	unknown	55-37-2xx	174878

Financial Reports and Annual Financial Audit:

Financial reports are given at each meeting of the District's Board of Directors. The Financial Audit of the District for FY 2018 was presented to the Board at the September 11, 2018 Board meeting and was approved on at the October 9, 2018 Board Meeting. A copy of the Financial Audit can be found at the District Office. The FY 2018 Budget is allocated as follows:

Sutton County UWCD 2018 Budget

