

# **BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT**



## **2016 ANNUAL REPORT**

**TO**

**BVGCD BOARD OF DIRECTORS**

**ON**

**ATTAINMENT OF MANAGEMENT PLAN OBJECTIVES**

**1. Implement Strategies Providing For the Most Efficient Use of Groundwater:**

**1a. Objective** – Require all existing and new non-exempt wells constructed within the boundaries of the District to be permitted by the District and operated in accordance with District Rules. In addition, the District will encourage all exempt wells constructed within the District boundaries to be registered with the District.

**1a. Performance Standard** – The number of exempt and permitted wells registered within the District will be reported annually in the District’s Annual Report submitted to the Board of Directors of the District.

**1a. Performance Measurement** – A total of 35 new non-exempt wells were permitted during 2016. The District registered 79 exempt wells (34 in Brazos County, 22 in Robertson County, 23 oil and gas rig supply) in both counties combined. Totals for all wells ending 2016:

**Domestic/Livestock (Exempt) – 1383**

**Gas & Oil (Exempt) – 1085**

**Historic Use (Permitted) – 631**

**Operating (Permitted) – 208**

**Drilling/Operating (Permitted) - 142**

**1b. Objective** – Regulate the production of groundwater by permitting wells within the District’s boundaries based on beneficial use and in accordance with District Rules. Each year the District will accept and process applications for the permitted use of groundwater in the District, in accordance with the permitting process established by District Rules. The District will regulate the production of groundwater from permitted wells by verification of pumpage volumes using meters.

**1b. Performance Standard** –The number and type of applications made for permitted use of groundwater in the District, number and type of permits issued by the District, and amount of groundwater permitted will be included in the Annual Report given to the Board of Directors.

**1b. Performance Measurement** –

**Number of applications for permitted use: 35**

**Type of applications made/permits issued**

- **Agricultural Irrigation – 11/11**
- **Industrial – 24/24**
- **Municipal – 0/0**
- **Rural Public Water Supply – 0/0**
- **Steam Electric – 0/0**

## 2015 Permitted Water Production in Acre Feet by Aquifer/User Group

	Agricultural	Industrial	Municipal	Rural Water	Steam Electric	Transported	Total Permitted
<b>BRA</b>	4,488.00	227.5					4,715.50
<b>Hooper</b>							0.0
<b>Simsboro</b>							0.0
<b>Calvert Bluff</b>		2.65					2.65
<b>Carizzo</b>		0.0					0.0
<b>Queen City</b>		490.94					490.94
<b>Sparta</b>		723.00					723.00
<b>Yegua-Jackson</b>		26.04					26.04
<b>Gulf Coast</b>							0.00
	4,488.00	1,470.13	0.00	0.00	0.00	0.00	5,958.13

**1b. Performance Standard** – Actual annual pumpage from each metered well within the District will be reported annually and compared to the amount permitted for that well. This information will be included in the District’s Annual Report submitted to the Board of Directors of the District.

**1b. Performance Measurement** – A spreadsheet detailing the 2016 actual water production, permitted allowance, and fees for each metered well in the District are shown below:

Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
Brazos River Authority	BVHU-0246	5.30	1.92	\$ 26.59
Coomer, Melanie	BVOP-0008	1.10	0.13	\$ 1.80
Lake Limestone Water, Inc	BVHU-0302/BVOP-0134	40.75	14.39	\$ 199.28
Lake Limestone Water, Inc	BVHU-0303/BVOP-0135	80.51	21.95	\$ 303.98
Rimrock Beefmasters, LLC	BVOP-0002	2.69	0.22	\$ 3.05
Robertson County WSC	BVHU-0015/BVOP-0130	259.60	207.19	\$ 2,869.31
Robertson County WSC	BVHU-0016/BVOP-0131	236.40	77.26	\$ 1,069.95
Robertson County WSC	BVHU-0017	134.50	29.36	\$ 406.60
Robertson County WSC	BVHU-0018/BVOP-0132	71.50	88.48	\$ 1,225.33
Running Creek RV Park	BVOP-0139	8.00	0.53	\$ 7.34
Tri-County SUD	BVHU-0023	119.30	118.44	\$ 1,640.24
Tri-County SUD	BVHU-0024	84.00	75.63	\$ 1,047.37
Tri-County SUD	BVDO-0188	145.51	0.00	\$ -
Twin Creek WSC	BVHU-0019	63.31	47.94	\$ 663.91
Twin Creek WSC	BVHU-0020	53.06	51.07	\$ 707.25
Twin Creek WSC	BVHU-0021	96.07	47.76	\$ 661.41
Twin Creek WSC	BVHU-0022	25.59	0.00	\$ -
Watson, George	BVOP-0170	1.60	0.56	\$ 7.76
Wellborn SUD	BVDO-0014	1935.00	137.05	\$ 1,897.96
Wellborn SUD	BVHU-0058/BVOP-0136	1153.35	738.52	\$ 10,227.52
Wickson Creek - Robertson	BVHU-0031	55.00	35.69	\$ 494.26
<b>Rural Robertson County</b>		<b>4572.14</b>	<b>1694.09</b>	<b>\$ 23,460.89</b>
Brazos Valley Septic & Water	BVHU-0981/BVOP-0153	5.00	3.68	\$ 50.96
Nasir Veerani dba Wheelock Express	BVDO-0196	1.00	1.00	\$ 13.85
Nerro Supply	BVHU-0982/BVOP-0151	30.00	22.86	\$ 316.58
Nerro Supply	BVHU-0984/BVOP-0152	26.00	22.30	\$ 308.83
Nerro Supply	BVHU-0985/BVOP-0154	26.00	24.67	\$ 341.65
Wellborn SUD	BVHU-0053	278.30	466.02	\$ 6,453.76
Wellborn SUD	BVHU-0054	258.13	0.00	\$ -
Wellborn SUD	BVHU-0055	225.87	257.75	\$ 3,569.49
Wellborn SUD	BVHU-0056	225.87	284.42	\$ 3,938.84
Wellborn SUD	BVHU-0057	297.125	346.63	\$ 4,800.36
Wellborn SUD	BVOP-0174	125.815	0.00	\$ -
Wickson Creek - Brazos	BVDO-0042	700.00	700.86	\$ 9,705.98
Wickson Creek - Brazos	BVDO-0142	400.00	0.00	\$ -
Wickson Creek - Brazos	BVHU-0027	518.00	402.91	\$ 5,579.77
Wickson Creek - Brazos	BVHU-0028	72.00	0.00	\$ -
Wickson Creek - Brazos	BVHU-0029	335.00	0.00	\$ -
Wickson Creek - Brazos	BVHU-0030	591.00	447.53	\$ 6,197.69
Wickson Creek - Brazos	BVOP-0048	500.00	529.58	\$ 7,333.98
<b>Rural Brazos County</b>		<b>4615.11</b>	<b>3510.21</b>	<b>\$ 48,611.73</b>

Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
Bremond, City of	BVHU-0412/BVOP-0145	40.00	0.00	\$ -
Bremond, City of	BVHU-0413/BVOP-0146	60.00	0.00	\$ -
Bremond, City of	BVHU-0414/BVOP-0147	84.00	21.41	\$ 296.50
Bremond, City of	BVHU-0415/BVOP-0148	123.00	49.33	\$ 683.15
Bremond, City of	BVHU-0416/BVOP-0149	134.00	41.54	\$ 575.27
Calvert, City of	BVOP-0010	100.00	0.00	\$ -
Calvert, City of	BVOP-0011	182.00	41.56	\$ 575.55
Calvert, City of	BVOP-0012	273.00	168.27	\$ 2,330.32
Franklin, City of	BVDO-0054	126.00	141.90	\$ 1,965.13
Franklin, City of	BVOP-0027	116.00	2.03	\$ 28.11
Franklin, City of	BVOP-0028	116.00	37.47	\$ 518.91
Franklin, City of	BVOP-0029	116.00	10.48	\$ 145.13
Hearne, City of	BVHU-0011	494.00	94.08	\$ 1,302.88
Hearne, City of	BVHU-0012	577.00	478.92	\$ 6,632.40
Hearne, City of	BVHU-0013	312.00	0.00	\$ -
Hearne, City of	BVHU-0014	474.00	351.93	\$ 4,873.76
			\$	-
<b>Municipal Robertson</b>		<b>3327.00</b>	<b>1438.92</b>	<b>\$ 19,927.12</b>
Bryan, City of	BVDO-0003	4838.00	1918.26	\$ 26,565.34
Bryan, City of	BVHU-0001	716.00	0.00	\$ -
Bryan, City of	BVHU-0002	686.00	0.00	\$ -
Bryan, City of	BVHU-0003	2286.54	76.92	\$ 1,065.24
Bryan, City of	BVHU-0004	1413.53	0.00	\$ -
Bryan, City of	BVHU-0005	3020.04	1858.02	\$ 25,731.10
Bryan, City of	BVHU-0006	3784.56	2792.25	\$ 38,668.94
Bryan, City of	BVHU-0007	3492.51	626.58	\$ 8,677.30
Bryan, City of	BVHU-0008	3841.55	1816.01	\$ 25,149.32
Bryan, City of	BVHU-0009	3297.04	2547.71	\$ 35,282.39
Bryan, City of	BVHU-0010	3460.72	2400.61	\$ 33,245.25
Bryan, City of	BVHU-0041	2703.70	0.00	\$ -
College Station, City of	BVDO-0001	1290.00	302.90	\$ 4,194.76
College Station, City of	BVDO-0002	1290.00	433.43	\$ 6,002.43
College Station, City of	BVDO-0013	4839.00	3503.39	\$ 48,517.28
College Station, City of	BVDO-0053	2390.00	1446.84	\$ 20,036.81
College Station, City of	BVDO-0152	2855.00	0.00	\$ -
College Station, City of	BVHU-0038	2423.00	1806.68	\$ 25,020.11
College Station, City of	BVHU-0039	2386.00	1298.42	\$ 17,981.39
College Station, City of	BVHU-0040	2381.00	1764.21	\$ 24,431.96
College Station, City of	BVHU-0042	2726.00	2358.14	\$ 32,657.10
College Station, City of	BVHU-0043	2792.00	966.78	\$ 13,388.61
Texas A&M University	BVHU-0450	789.68	441.93	\$ 6,120.14
Texas A&M University	BVHU-0451	753.53	354.80	\$ 4,913.51
Texas A&M University	BVHU-0452	235.43	199.30	\$ 2,760.04
Texas A&M University	BVHU-0453	745.88	437.83	\$ 6,063.36
Texas A&M University	BVHU-0454	2337.14	1337.60	\$ 18,523.98
Texas A&M University	BVHU-0455	2864.00	1497.60	\$ 20,739.76
Texas A&M University	BVHU-0456	2444.77	383.02	\$ 5,304.32
Texas A&M University	BVOP-0003	185.00	183.41	\$ 2,539.98
Texas A&M University	BVOP-0004	282.00	286.96	\$ 3,974.01
Texas A&M University	BVOP-0005	523.00	20.88	\$ 289.16
<b>Municipal Brazos</b>		<b>70072.62</b>	<b>33060.48</b>	<b>\$ 457,843.59</b>

Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
Calvert Country Club	BVOP-0050	0.25	0.51	\$ 7.06
Calvert Country Club	BVOP-0051	7.52	3.64	\$ 50.41
Calvert Country Club	BVOP-0052	35.12	3.61	\$ 49.99
Calvert Country Club	BVOP-0053	35.11	5.97	\$ 82.68
Circle X Land & Cattle (SynFuels)	BVDO-0039	40.00	0.21	\$ 2.91
Covey Park Operating, LLC	BVOP-0255	0.97	0.97	\$ 13.43
Covey Park Operating, LLC	BVOP-0137	125.00	0.00	\$ -
Covey Park Operating, LLC	BVOP-0138	125.00	0.00	\$ -
Energy Transfer	BVDO-0038	3.30	0.17	\$ 2.35
Franklin ISD	BVDO-0056	65.00	28.77	\$ 398.43
Franklin ISD (Sports Field)	BVDO-0119	141.00	56.65	\$ 784.53
Neff, Charles	BVDO-0032	32.20	0.00	\$ -
Oak Grove Country Club	BVOP-0049	51.00	24.62	\$ 340.95
Major Oak Power, LLC	BVHU-0044	8.10	1.42	\$ 19.67
Major Oak Power, LLC	BVOP-0144	300.00	0.00	\$ -
Sanderson Farms, Inc. - Robertson	BVHU-0026/BVOP-0133	56.00	35.88	\$ 496.89
Siegert, Paul	BVOP-0160	5.00	0.00	\$ -
Skiles, Dr. Clifford	BVDO-0136	750.00	22.00	\$ 304.67
Tanos Exploration	BVOP-0261	1.55	1.55	\$ 21.47
Sunoco Logistics	BVOP-0200	2.00	0.00	\$ -
Trend Gathering & Treating, LP	BVDO-0004	2.00	0.00	\$ -
Trend Gathering & Treating, LP	BVOP-0163	2.00	0.00	\$ -
Union Pacific Railroad	BVOP-0230	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0231	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0232	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0233	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0234	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0235	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0236	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0237	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0238	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0239	150.00	0.00	\$ -
Union Pacific Railroad	BVOP-0254	150.00	0.00	\$ -
XTO Energy	BVOP-0212	25.00	8.81	\$ 122.01
XTO Energy	BVOP-0213	25.00	10.87	\$ 150.54
XTO Energy	BVOP-0214	25.00	24.36	\$ 337.35
<b>Industrial Robertson</b>		<b>3513.12</b>	<b>230.01</b>	<b>\$ 3,185.33</b>



Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
1980 Phillips Group, LLC	BVHU-0069	154.60	128.33	\$ 1,777.20
Anadarko Petroleum	BVDO-0204	39.00	39.00	\$ 540.10
Anadarko Petroleum	BVDO-0205	39.00	39.00	\$ 540.10
Anadarko Petroleum	BVOP-0256	39.00	39.00	\$ 540.10
Anadarko Petroleum	BVOP-0257	39.00	39.00	\$ 540.10
Borski, Dorothy	BVOP-0172	56.00	0.00	\$ -
Brooks, James M. (GEO 3)	BVDO-0099	20.00	0.00	\$ -
Bryan Texas Utilities	BVHU-0154	177.44	80.08	\$ 1,109.00
C-3 College Station, LLC	BVDO-0201	22.00	6.91	\$ 95.69
Creek Meadow Partners	BVDO-0207	25.00	0.00	\$ -
Homestead U	BVDO-0124	22.00	2.14	\$ 29.64
Circle D Nurseries	BVDO-0028	1.34	0.72	\$ 9.97
DeVore, Jason	BVDO-0021	5.00	0.00	\$ -
Fortex Grass	BVDO-0019	1.00	0.63	\$ 8.72
GLP Technologies	BVHU-0092	5.00	0.25	\$ 3.46
Grid Raceplex Holdings, Ltd.	BVOP-0177	30.00	0.00	\$ -
Grid Raceplex Holdings, Ltd.	BVOP-0178	30.00	0.00	\$ -
Grid Raceplex Holdings, Ltd.	BVOP-0179	30.00	0.00	\$ -
Halcon Resources	BVDO-0157	70.00	0.00	\$ -
Halcon Resources	BVDO-0158	2.00	0.00	\$ -
Halcon Resources	BVDO-0161	70.00	0.00	\$ -
Halcon Resources	BVDO-0162	35.00	0.00	\$ -
Halcon Resources	BVDO-0163	35.00	0.00	\$ -
Halcon Resources	BVDO-0166	35.00	0.00	\$ -
Halcon Resources	BVDO-0171	30.00	0.00	\$ -
Halcon Resources	BVDO-0175	30.00	0.00	\$ -
Halcon Resources	BVDO-0177	75.00	0.00	\$ -
Halcon Resources	BVDO-0180	70.00	0.00	\$ -
Halcon Resources	BVDO-0182	70.00	0.00	\$ -
Halcon Resources	BVDO-0183	70.00	0.00	\$ -
Halcon Resources	BVDO-0190	70.00	0.00	\$ -
Halcon Resources	BVOP-0190	70.00	0.00	\$ -
Halcon Resources	BVOP-0191	70.00	0.00	\$ -
Halcon Resources	BVOP-0192	70.00	0.00	\$ -
Halcon Resources	BVOP-0193	70.00	0.00	\$ -
Halcon Resources	BVOP-0194	70.00	0.00	\$ -
Halcon Resources	BVOP-0195	70.00	0.00	\$ -
Halcon Resources	BVOP-0196	70.00	0.00	\$ -
Halcon Resources	BVOP-0197	70.00	0.00	\$ -
Halcon Resources	BVOP-0198	70.00	0.00	\$ -
Halcon Resources	BVOP-0205	70.00	0.00	\$ -
Halcon Resources	BVOP-0216	30.00	0.00	\$ -
Hawkwood Energy Operating, LLC	BVDO-0212	150.00	150.00	\$ 2,077.30
Hawkwood Energy Operating, LLC	BVDO-0213	150.00	150.00	\$ 2,077.30
Hawkwood Energy Operating, LLC	BVOP-0176	100.00	0.00	\$ -
Hawkwood Energy Operating, LLC	BVOP-0184	80.00	0.00	\$ -
Hawkwood Energy Operating, LLC	BVOP-0185	120.00	0.00	\$ -
Hawkwood Energy Operating, LLC	BVOP-0186	200.00	0.00	\$ -
Hawkwood Energy Operating, LLC	BVOP-0187	200.00	0.00	\$ -
Hawkwood Energy Operating, LLC	BVOP-0269	150.00	150.00	\$ 2,077.30
Hawkwood Energy Operating, LLC	BVOP-0270	150.00	150.00	\$ 2,077.30
Hawkwood Energy Operating, LLC	BVOP-0271	150.00	150.00	\$ 2,077.30
Hawkwood Energy Operating, LLC	BVOP-0272	150.00	150.00	\$ 2,077.30
Hill Ranch	BVOP-0218	150.00	0.00	\$ -
Knife River Corporation	BVDO-0117	150.00	16.27	\$ 225.32
Knife River Corporation	BVOP-0158	32.00	2.18	\$ 30.19
Marlin Energy Resources, LLC	BVDO-0159	120.00	0.00	\$ -
Marlin Energy Resources, LLC	BVDO-0160	120.00	0.00	\$ -
Melvin Estate	BVOP-0182*	110.00	0.00	\$ -
Millican United Methodist Church	BVDO-0143	5.00	1.28	\$ 17.73

Miremont One Golf Course	BVOP-0024	78.85	147.07	\$	2,036.72
Miremont One Golf Course	BVOP-0025	224.28	134.86	\$	1,867.63
Miremont One Golf Course	BVOP-0026	432.74	428.58	\$	5,935.26
Mustang SWD Operating, LLC	BVDO-0199	2.00	0.00	\$	-
Opersteny, Steve	BVHU-0457	530.00	0.00	\$	-
Price, David	BVOP-0173	19.36	0.00	\$	-
Sahara Reality Group	BVDO-0024	10.00	0.00	\$	-
Sanderson Farms, Inc. - Brazos	BVDO-0140	0.00	0.00	\$	-
Sanderson Farms, Inc. - Brazos	BVHU-0025	2057.00	1277.69	\$	17,694.30
Sharp, John	BVDO-0156	200.00	18.41	\$	254.95
Stripes, LLC	BVDO-0135	1.00	0.09	\$	1.25
Stylecraft Builders Inc.	BVDO-0081	5.00	21.99	\$	304.53
<b>Industrial Brazos</b>		<b>7974.61</b>	<b>3323.48</b>	<b>\$</b>	<b>46,025.77</b>

Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
Anderson Estate	BVHU-1070	600.00	0.00	\$ -
Anderson Estate	BVHU-1071	600.00	19.82	\$ 2.48
Brien, James & Ellen	BVDO-0134	542.00	94.72	\$ 11.84
Burnett, David	BVDO-0009	242.00	0.00	\$ -
Carpenter, Dale	BVDO-0100	117.00	0.53	\$ 0.07
Circle X Camp Cooley Ranch, Ltd.	BVDO-0017	110.00	0.00	\$ -
Circle X Camp Cooley Ranch, Ltd.	BVDO-0025	110.00	0.00	\$ -
Circle X Camp Cooley Ranch, Ltd.	BVDO-0026	110.00	0.76	\$ 0.10
Circle X Camp Cooley Ranch, Ltd.	BVDO-0027	110.00	0.00	\$ -
Circle X Camp Cooley Ranch, Ltd.	BVOP-0001	110.00	0.00	\$ -
Circle X Land & Cattle	BVHU-0433*	280.00	0.12	\$ 0.02
Circle X Land & Cattle	BVHU-0434*	280.00	0.00	\$ -
Circle X Land & Cattle	BVHU-0435*	2800.00	2.62	\$ 0.33
Circle X Land & Cattle	BVHU-0436*	56.00	0.00	\$ -
Circle X Land & Cattle	BVHU-0438*	56.00	0.00	\$ -
Circle X Land & Cattle	BVHU-0439*	56.00	0.00	\$ -
Conn, Larry	BVDO-0018	35.00	9.21	\$ 1.15
Conn, Larry	BVDO-0046	35.00	11.14	\$ 1.39
Conn, Larry	BVOP-0094	35.00	0.00	\$ -
Connatser, William	BVDO-0098	100.00	0.00	\$ -
Corpora, Vence	BVDO-0055	600.00	119.56	\$ 14.95
Corpora, Ryan, Sloat	BVDO-0090	600.00	201.06	\$ 25.13
Corpora, Ryan, Sloat	BVDO-0091	700.00	137.20	\$ 17.15
Epps, Frank N	BVOP-0047	30.00	0.06	\$ 0.01
Fazzino, Lee	BVHU-1025	560.00	0.00	\$ -
Gregurek, Edward L.	BVDO-0037	26.00	1.83	\$ 0.23
Liem HOA Poultry, LLC	BVDO-0184	35.00	0.05	\$ 0.01
Liem HOA Poultry, LLC	BVDO-0185	35.00	6.73	\$ 0.84
Liem HOA Poultry, LLC	BVDO-0186	35.00	0.00	\$ -
Liere Dairy	BVDO-0118	720.00	245.62	\$ 30.70
Liere Dairy	BVHU-1101	254.00	144.61	\$ 18.08
Liere Dairy	BVHU-1102	720.00	57.37	\$ 7.17
Lockhart, Bart	BVHU-0142	160.00	2.36	\$ 0.30
Mackey, Willis	BVDO-0103	20.00	0.18	\$ 0.02
Neal, Murray	BVDO-0102	24.00	0.43	\$ 0.05
Philipello, Nathan	BVDO-0147	30.00	16.37	\$ 2.05
Philipello, Nathan	BVDO-0148	30.00	9.86	\$ 1.23
Philipello, Nathan	BVDO-0149	30.00	0.00	\$ -
Rampy, Ty	BVOP-0017	125.00	0.00	\$ -
Rampy, Ty	BVOP-0018	125.00	0.00	\$ -
Reistino, Maria & Melissa	BVDO-0092	894.00	245.38	\$ 30.67
Rolke Ranch	BVHU-0143	45.00	0.00	\$ -
Rolke Ranch	BVHU-0144	15.00	0.00	\$ -
Rolke Ranch	BVHU-0145	30.00	0.00	\$ -
Rolke Ranch	BVHU-0146	45.00	0.00	\$ -
Skiles, Clifford III (Trey)	BVDO-0108	1400.00	1293.00	\$ 161.63
Skiles Family Partnership, C.A.	BVHU-1058	20770.00	11627.00	\$ 1,453.38
Smitherman, Robert	BVDO-0172	30.00	0.27	\$ 0.03
Smitherman, Robert	BVDO-0173	30.00	10.55	\$ 1.32
Smitherman, Robert	BVDO-0174	30.00	7.26	\$ 0.91
Watson, Richard	BVDO-0115	54.50	0.00	\$ -
Wright, Larry	BVOP-0156	100.00	73.22	\$ 9.15
<b>Agricultural - Robertson</b>		<b>34686.50</b>	<b>14338.89</b>	<b>\$ 1,792.36</b>

Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
A&F Farms (Dobrovolny, Jason)	BVOP-0119	30.00	0.00	\$ -
A&F Farms (Dobrovolny, Jason)	BVOP-0120	30.00	0.00	\$ -
A&F Farms (Dobrovolny, Jason)	BVOP-0121	40.00	0.00	\$ -
A&F Farms (Dobrovolny, Jason)	BVOP-0122	40.00	0.00	\$ -
A&F Farms (Dobrovolny, Jason)	BVOP-0123	40.00	0.00	\$ -
Brien, Jeff	BVDO-0113	120.00	0.00	\$ -
Carrabba Brothers	BVDO-0153	74.00	0.00	\$ -
Carrabba Brothers	BVOP-0165	56.67	0.00	\$ -
Carrabba Brothers	BVOP-0166	56.67	0.00	\$ -
Carrabba Brothers	BVOP-0167	56.66	0.00	\$ -
Circle X Land & Cattle	BVHU-0437*	56.00	0.00	\$ -
Dawson, Daniel	BVDO-0052	19.00	14.00	\$ 1.75
Forsthoff, Robert G.	BVHU-0502	20.00	0.00	\$ -
Forsthoff, Robert G.	BVHU-0503	20.00	0.00	\$ -
Forsthoff, Robert G.	BVHU-0504	20.00	0.00	\$ -
Greenwood, Kyle	BVDO-0123	60.00	3.35	\$ 0.42
Inguran, LLC dba Sexing Technology	BVDO-0126	280.00	124.68	\$ 15.59
Lampe, Michael	BVHU-0152	22.40	12.28	\$ 1.54
Lampe, Michael	BVHU-0153	22.40	12.28	\$ 1.54
McGuire, Charles	BVDO-0122	100.00	6.18	\$ 0.77
Melvin Estate	BVOP-0183*	165.00	0.00	\$ -
Messina Hoff Winery	BVDO-0075	80.00	4.50	\$ 0.56
Messina Hoff Winery	BVHU-0077A	4.30	1.88	\$ 0.24
Paull, Marcella	BVDO-0146	40.00	0.00	\$ -
Ruffino, Preston J. III	BVOP-0159	111.00	0.00	\$ -
Scasta, Robert Lee	BVOP-0157	60.00	0.00	\$ -
Wall, Jerry	BVOP-0164*	150.00	0.74	\$ 0.09
Wall, Jim	BVDO-0150*	200.00	0.00	\$ -
Wall, Jim	BVDO-0151*	200.00	0.00	\$ -
<b>Agricultural - Brazos</b>		<b>2174.10</b>	<b>179.89</b>	<b>\$ 22.49</b>
Name	Permit #	Permitted Amount	Water Prod. 2015 in ac/ft	Total Assessment
Oak Grove Management Co., LLC	BVDO-0031**	537.00	412.47	\$ 103.12
Oak Grove Management Co., LLC	BVOP-0020**	274.00	72.15	\$ 18.04
Major Oak Power, LLC	BVHU-0045**	2887.00	1517.02	\$ 379.26
Major Oak Power, LLC	BVHU-0046**	2508.00	1537.87	\$ 384.47
Major Oak Power, LLC	BVHU-0047**	2116.00	1611.33	\$ 402.83
<b>Steam Electric - Robertson</b>		<b>8322.00</b>	<b>5150.84</b>	<b>\$ 1,287.71</b>
<b>Grand Total</b>		<b>139257.20</b>	<b>62926.81</b>	<b>\$ 602,157.00</b>
* Duel use permits				
** Steam Electric permits				
Exceeded permitted production/not aggregated				

**1c. Objective** – Conduct ongoing monitoring of the aquifers underlying the District and the current groundwater production within the District, and then assess the available groundwater that can be produced from each aquifer within the District after sufficient data are collected and evaluated. Using this data and information developed for GMA-12 the District will re-evaluate availability goals as necessary and will permit wells in accordance with the appropriate production goals.

**1c. Performance Standard** – The District will conduct the appropriate studies to identify the issues and criteria needed to address groundwater management needs within the District’s boundaries. Groundwater availability goals will take into consideration the GMA-12 planning and research of the hydrogeological and geologic characteristics of the aquifers, which may include, but not necessarily be limited to, the amount of water use, water quality, and water level declines.

**1c. Performance Measurement** – **149 wells are now being monitored across the District encompassing all aquifers. Of that number, 91 lie over the Carrizo-Wilcox group, 56 over the Brazos River Alluvium, Queen City, Sparta, and Yegua-Jackson. The total number of readings for all monitoring wells was 517. A comparison with previous years shows the well monitoring program remains robust and the most effective method to ascertain aquifer levels in relationship to the desired future conditions.**

**Total observations during 2016 decreased because the District staff moved from a monthly measurement program to quarterly at the recommendation of the District hydrologist. The total number of wells in the monitoring program decreased eliminating wells in close proximity to wells with long established measurement history and wells that were difficult to obtain accurate measurements or did not meet the strict measurement criteria adopted by the District Board during 2016.**

- 2015 – 180 wells in the network – 1,048 measurements
- 2014 – 166 wells in the network – 1,344 measurements
- 2013 – 166 wells in the network – 1,278 measurements
- 2012 – 151 wells in the network – 816 measurements
- 2011 – 114 wells in the network – 404 measurements

**Groundwater Management Area 12 (GMA 12) Desired Future Conditions (DFCs) for each of the managed aquifers were adopted in April, 2010. In early 2013, GMA 12 representatives began the re-evaluation of the DFCs as required by statute. The re-evaluated proposed DFCs were required to be adopted not later than May, 2016. GMA 12 representatives met the deadline adopting the proposed DFCs in April, 2016. Several groundwater availability model runs have been performed during the GMA 12 planning process to assess current and predicted future impact of production from each of the aquifers. The BVGCD database of readings was used to assist in verifying how well the current Groundwater Availability Model (GAM) predicts the drawdown of the aquifers. District data will also help improve prediction of the modeled available groundwater, if in fact drawdown levels are not what the model has predicted. Assessment of the past three years of monitoring well data compared to the GAM projected drawdown of the aquifers indicates the aquifers are responding more favorably than the GAM estimates. This is a positive development, but no assessment can be made at this time as to how relative the model is in predicting the drawdown as it relates to the DFC's of the regulated aquifers.**

**All hydrologists for the GMA-12 districts were instructed to analyze the current model, data developed within the respective groundwater districts, and determine if an update of the model is warranted and what costs might be associated with the update. That meeting occurred December 9, 2013 resulting in GMA-12 members instructing the hydrologists to contact the Texas Water Development Board (TWDB) about updating the model and a possible partnering with TWDB on the update. In November, 2014, TWDB published a**

**Request for Qualifications (RFQ) for the aforementioned GAM update. Work on the GAM update was approved by the TWDB Board and should begin in 2016.**

**BVGCD committed \$130,000.00 to the improvement of the Central Queen City-Sparta/Carrizo-Wilcox Groundwater Availability Model (GAM). The update will focus on better defining faults and their impacts, surface/groundwater interaction along the Brazos and Colorado River basins, and improved definition of interaction between aquifers. This is a joint effort involving financial or in-kind service from Post Oak Savannah GCD, Mid-East Texas, GCD, Lost Pines GCD, and the Texas Water Development Board (TWDB). The GAM will likely be available for use by the districts within GMA 12 by 2018.**

**The Board declared the Brazos River Alluvium relevant for this round of DFC determination. The Alluvium was declared non-relevant but self-regulating in 2010 leading to no designation of a DFC. With relevancy declared, a DFC was determined and adopted as required by statute.**

**In December, 2016, the TWDB completed work on a groundwater availability model (GAM) for the Brazos River Alluvium. The newly developed model should aid in a more accurate determination of future DFCs for the aquifer.**

**1c. Performance Standard** – A progress report on the work of the District regarding the groundwater availability will be written annually, as substantial additional data are developed. The progress report will be included in the annual report to the District Board of Directors.

**1c. Performance Measurement** – The Brazos Valley Groundwater Conservation District (BVGCD) has inventoried pumping of permit holders for several years. Obtaining accurate data regarding the quantity of groundwater pumped is an important effort with data collected on a monthly or annual basis.

Water-level data are collected from a water-level monitoring network to evaluate water-level changes that occur throughout the year or over a number of years in response to changes in groundwater pumping. The data will continue to be collected and utilized as overall groundwater availability within the BVGCD is evaluated. Data being collected has been and will continue to be utilized in the GMA-12 regional water planning effort. Prior to the final adoption of the DFCs, revised estimates of groundwater availability will be developed based on the review of the groundwater pumping and well water-level data being collected and evaluated. Results from the BVGCD's efforts also will provide data for the Texas Water Development Board (TWDB) regional groundwater availability model used as a water resources planning tool.

From 2007 through 2016, GMA-12, composed of five groundwater districts, participated in the process of developing desired future conditions (DFCs). During that time the BVGCD was enhancing its inventory of groundwater pumping and initiating a program of water-level monitoring to provide data for continued evaluation of groundwater resources. The collection of water-level monitoring data by the BVGCD began during the latter part of 2010, with data before that time for a limited number of wells collected by the TWDB.

As part of the GMA-12 effort, estimates of Modeled Available Groundwater (MAG) were developed by the TWDB in the latter part of 2010 based on the



DFCs. The estimates of MAG within the BVGCD are given in Table 1. The Brazos Alluvium Aquifer was declared non-relevant and self-regulating during the 2010 round of DFC determination. The Board declared the Alluvium relevant for the 2016 DFC planning process.

**Table 1. Estimates of Groundwater Availability**

<b>Aquifer</b>	<b>Modeled Available Groundwater, ac-ft/yr</b>
<b>Carrizo</b>	<b>5,496</b>
<b>Queen City</b>	<b>529</b>
<b>Simsboro</b>	<b>96,185</b>
<b>Calvert Bluff</b>	<b>1,755</b>
<b>Hooper</b>	<b>316</b>
<b>Sparta</b>	<b>7,923</b>
<b>Yegua-Jackson</b>	<b>7,071</b>

**Table 2. Metered Groundwater Pumping, ac-ft/yr**

<b>Aquifer</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>Carrizo</b>	<b>806.43</b>	<b>852.28</b>	<b>665.50</b>	<b>761.72</b>
<b>Queen City</b>	<b>64.40</b>	<b>496.57</b>	<b>189.78</b>	<b>99.62</b>
<b>Simsboro</b>	<b>64,106.92</b>	<b>62,946.34</b>	<b>56,638.46</b>	<b>54,237.29</b>
<b>Calvert Bluff</b>	<b>81.77</b>	<b>183.50</b>	<b>160.07</b>	<b>132.32</b>
<b>Hooper</b>	<b>794.24</b>	<b>1,065.07</b>	<b>1,084.25</b>	<b>909.16</b>
<b>Sparta</b>	<b>3,402.06</b>	<b>5,358.33</b>	<b>4,122.06</b>	<b>4,152.91</b>
<b>Yegua-Jackson</b>	<b>1,438.37</b>	<b>2,533.23</b>	<b>1,664.27</b>	<b>1,565.41</b>

**Water-Level Monitoring Data for 2009-2016**

As groundwater pumping occurs within the BVGCD, water levels are measured in wells screening the aquifers to evaluate their response to continuing pumping. The TWDB has had a program of measuring water levels in certain wells within the BVGCD for

decades. With that program, water levels were measured in about 21 wells on an annual basis. Beginning in 2009, the BVGCD also began measuring water levels in 5 additional wells screening sands of the Simsboro Aquifer.

The BVGCD expanded its water-level measuring program in the latter part of 2010 to include an additional 34 wells. The water-level was measured at least once in each of the wells and for some of the wells at least two times during the year. This water-level monitoring effort was in addition to the 21 wells that are a part of the TWDB water-level measuring network.

In 2011, the well water-level monitoring program was expanded further with water levels measured in additional wells that screened sands of the various aquifers providing water within the BVGCD. 114 wells were monitored at least once during the course of the year. Monitoring was done across all aquifers with most having at least 2 monitoring wells.

During 2012, 151 wells were monitored in the network. Several of these wells were not monitored during 2012 because steel tape measurements were ceased. This was in response to a report of possible damage done to one well.

The well monitoring program grew to 166 wells covering all eight of the relevant District aquifers during 2013. A minimum of two monitor wells are used in each of the aquifers. The City of Bryan Well #18 has been equipped with a well bubbling unit which allows the District and the city continuous to receive static water level measurements in real time.

In 2014, the well monitoring network was comprised of 164 wells covering all eight aquifers in the District. At least two wells were measured in each of these aquifers. Hydrographs were presented at each Board meeting reflecting an average of water level measurements taken each month.

**During 2015, the monitoring wells network grew to 179 wells with heavy emphasis on adding wells in the unconfined portions of the aquifers. A high level of importance was placed on locating unconfined wells in the Hooper and Simsboro aquifers. Several were also located in both the Calvert Bluff and Queen City aquifers. District staff continues to search for wells, both confined and unconfined, in the Sparta and Carrizo aquifers. Some wells were taken out of the monitoring network do to their close proximity to other monitoring wells in the same aquifer with more measurement data.**

**Measurement of water levels in monitoring wells took a significant turn during 2016. A rigid measurement protocol was developed and adopted by the Board of Directors in August, 2016 placing strong emphasis on quality of data collected. Wells with storied historic data were given preferential placement in the data collection program. Multiple wells in close proximity and screening the same aquifer were evaluated with some being deleted from the network. Others were deleted because of the inability to meet the strict protocol established by the Board. Newly identified wells this historic data were evaluated and placed in the program.**

**149 wells are now encompassed in the well monitoring network. The measurements are now taken on a quarterly basis rather than monthly. The District hydrologist determined it was appropriate to measure quarterly with no resulting loss of accuracy occurring.**

**Board members at each permit hearing and board meeting are provided a table listing the modeled available groundwater assessed for each aquifer, the amount of water permitted in each aquifer or aquifer subdivision, and the amount of water pumped from each aquifer during 2009 through 2016.**

2. **Implement Strategies to Control and Prevent Waste of Groundwater:**

**2a. Objective** – Apply a water use fee to the permitted use of groundwater in the District to encourage conservation-oriented use of the groundwater resources to eliminate or reduce waste.

**2a. Performance Standard** – Each year the District will apply a water use fee to the non-exempt permitted use of groundwater produced within the District pursuant to District rules. The amount of fees generated and the amount of water produced for each type of permitted use will be a part of the Annual Report presented to the District Board of Directors.

**2a. Performance Measurement** – In 2016, the District generated a gross total of \$613,644.24 through water production fees. Rebates to Public Water Supply permit holders were given at a rate of \$0.01/1000 gallons applying to the first 100,000,000 gallons produced. The net total water production fees generated for 2016 was **\$603,410.34**. The amount generated and actual water productions for each permit type are listed below.

<u>Type of Permit</u>	<u>Fees Generated</u>	<u>Water Used</u>
Agricultural (metered)	\$1,814.85	14,518.78 ac ft.
Agricultural (non-metered)	\$11,487.24	*91,897.90 ac ft.
Industrial	\$49,211.10	3,553.49 ac ft.
Municipal Water Supply	\$477,770.72	34,499.40 ac ft.
Rural Water Supply	\$72,072.62	5,204.30 ac ft.
Steam Electric	\$1,287.71	5,150.84 ac ft.
Water Transported	\$0.00	0.00 ac ft.
<b>Total Fees Generated (2016)</b>	<b>\$613,644.24</b>	
<b>Total Fees To Be Collected**</b>	<b>\$603,410.34</b>	

\*Unmetered agricultural irrigation permits are charged fees for the full permitted amount. No metered production is reported in the Brazos River Alluvium Aquifer.

\*\* - 8 Rural Water Supply entities received at total of \$4,559.04 in rebates.

\*\* - 7 Municipal Water Supply entities received at total of \$5,674.86 in rebates.

**2b. Objective** – Evaluate District rules annually to determine whether any amendments are necessary to decrease the amount of waste within the District.

**2b. Performance Standard** – The District will include a discussion of the annual evaluation of the District rules, and the determination of whether any amendments to the rules are necessary to prevent the waste of groundwater in the Annual Report of the District provided to the Board of Directors.

**2b. Performance Measurement** – **The Board of Directors worked throughout 2015 to formulate and adopt a rule to enforce the desired future conditions of all aquifers managed by the District and create a Conservation Credit Plan. During the November 12<sup>th</sup> Board meeting, the directors voted to move the finalized language to a Public Rules Hearing on January 14, 2016. Only the rule pertaining to the enforcement of the desired future conditions was placed of the January 14<sup>th</sup> hearing agenda. Rule 7.2 (Enforcement of DFCs) was adopted by the Board on January 14, 2016. During the July 14, 2016 Rules Hearing, the Board adopted revisions to Rule 7.2 cleaning up language to more appropriately address the enforcement of the DFCs.**

**On August 11, 2016, the Board adopted water level measurement protocols via the Public Rule Hearing process. The protocols adopted are not a part of the rules but are specifically prescribed to be adopted through the rule making process.**

**2c. Objective** – Provide information to the public and the schools within the District on the wise use of water to eliminate and reduce wasteful practices.

**2c. Performance Standard** – The District will include a page on the District’s website devoted to the wise use of water and providing tips to help eliminate and reduce wasteful use of groundwater. The District will provide information to local school districts including Texas Education Agency approved water curriculum and in-school presentations to encourage wise use of water and understanding of the significance of aquifers to District residents.

**2c. Performance Measurement** – A major reconstruction of the District website was launched early in December, 2012. One page is dedicated solely to water conservation tips for the home and homeowner landscape. The other is “Just for Kids”, an area that targets water conservation education at elementary school students.

The Palmer Drought Severity Index and the latest U.S. Drought Monitor is displayed, and refreshed weekly on the homepage. News articles relating to water and conservation are also easily accessed from the homepage. Visitors can download an application for a \$25 rebate on the purchase of a rain barrel for conservation purposes using one of the tabs. Well owners also have access to information relating to the cost share well plugging program bolstered by the District is 2014. The District now shares in the cost of plugging the well at a level of 75% of the total cost up to \$1000/well.

The “Major Rivers” water curriculum was distributed to all 4<sup>th</sup> grade students in Robertson County. This includes Mumford, Hearne, Calvert, Franklin, and Bremond ISD’s. This same curriculum was distributed to all 15 Bryan ISD 4<sup>th</sup> grade classes, all 9 College Station ISD 4<sup>th</sup> grade classes, and a few of the Bryan ISD 5<sup>th</sup> grade classes. Allen Academy, St.Joseph’s Catholic School, and Brazos Christian School also received the Major Rivers materials.

The curriculum includes sections covering water conservation and the ways to wisely use water. A total of approximately 3,000 were exposed to the water curriculum in 2016. The curriculum was distributed to every 4<sup>th</sup> grade student in both Brazos and Robertson counties and to those 5<sup>th</sup> grade classes in schools not previously serving the 4<sup>th</sup> grade.

Many of the above mentioned school districts were also provided in-class demonstrations of aquifer characteristics, the water cycle and its importance to the aquifers, and instruction on water conservation and its effect on the longevity of District aquifers. Approximately 4,900 students were exposed to the 45-60 minute teaching session. This included presentations to 4<sup>th</sup>, 5<sup>th</sup> and 7<sup>th</sup> grade classes. District staff now conducts laboratory sessions addressing water quality to all 7<sup>th</sup> grade students in the entire District.

1600 4<sup>th</sup> grade students from Bryan, College Station, and Caldwell ISDs were taught the importance of water conservation during the Brazos County Texas AgriLife Extension Service “Pizza Ranch” event held during September, 2016. The District was asked to be a part of the event and to focus on the importance of water and the conservation of the natural resource. This will be a yearly activity for the District.

The District annually organizes and conducts a “Water Conservation Field Days” for all the 5<sup>th</sup> grade students in Robertson County school districts. This included Hearne, Mumford, Calvert, Bremond, and Franklin ISD’s. The event, held at the Franklin Community Park focuses on the importance of water, water quality, how aquifers work, and water conservation. The students rotate through ten 15-minute sessions teaching the above mentioned subject matter. This year’s field day was held on October 25, 2016 with approximately 275 students attending the field day.

The District has implemented the BVWaterSmart Irrigation Network for the use

by homeowners in the District offering irrigation rates throughout the lawn growing season. This effort is a partnership between the City of Bryan, City of College Station, Wickson Creek SUD, and Wellborn SUD using funds awarded by the District for the purchase of weather stations, wireless rain gauges, establishment of a website, and a contract to gather information for homeowner use.

The District had a presence at both the BCS Home & Garden Show and Earth Day events to push the service to homeowners. The project is initially funded for three years, evaluated for effectiveness during the budgeting process and was funded for another three year period (2017-2019). The website associated with the project received over 167,000 between March 15<sup>th</sup> and September 1<sup>st</sup>.

District staff continues to press forward with public education sponsoring the Texas Well Owners Network workshop November 2, 2016 with more than 40 well owners attending. Water quality, well head protection, water conservation and aquifer characteristics were presented. The District co-sponsored the Tri-County Texas Agri-Life Extension Farm Tour held June 6, 2016 with 34 in attendance. The primary focus for the District was a presentation on the important of leaching to enhance the efficiency of irrigation. On September 21, 2016, District staff gave a presentation to The Eagle newspaper journalists (4) covering aquifers, aquifer characteristics, water conservation, and aquifer protection.



3. **Implement Strategies to Address Conjunctive Surface Water Management Issues:**

**3a. Objective** – Encourage the use of surface water supplies where available, to meet the needs of specific user groups within the District.

**3a. Performance Standard** – The District will participate in the Region G Regional Water Planning process by attending at least one BGRWPG meeting annually and will encourage the development of surface water supplies where appropriate. This activity will be noted in the Annual Report presented to the District Board of Directors.

**3a. Performance Measurement** – **The District was actively engaged in the Regional G Water Planning process during 2016. The General Manager attended the April 27th and September 14th meetings.**

4. **Implement Strategies to Address Natural Resource Issues which Impact the Use and Availability of groundwater, and which are impacted by the Use of Groundwater:**

**4a. Objective** – Determine if there are any natural spring flows within the District that may be impacted by increased groundwater pumping.

**4a. Performance Standard** – Annually monitor water levels in at least 2 wells near natural spring flows, if found, for potential impact from groundwater production. Prepare an annual assessment statement and include in annual report to the District Board of Directors.

**4a. Performance Measurement** – An active search for flowing springs within the District is an ongoing effort. During 2012, three naturally flowing springs were initially identified in mid-November on the Mose Moody Heirs/Lafayette Moody Heirs property just north of Hearne, Texas in Robertson County. The springs were identified as water of Carrizo origin by the District hydrologist. Three Carrizo monitoring wells were identified and static water level measurement taken throughout the year to note the effect, if any, of pumping on spring flow.

During the late spring of 2014, the property on which the springs manifested was leased. The lessee asked that the District neither check spring flows nor the two monitoring wells on the Moody property. The District respected the wishes of both the property owner and the lessee.

District staff continues to search for and attempt to identify possible springs within the District boundaries. No new springs were identified during 2016.

5. **Implement Strategies to Address Drought Conditions:**

**5a. Objective** – A District staff member will download at least one Palmer Drought Severity Index (PDSI) map monthly. The Palmer Drought Severity Index map will be used to monitor drought conditions and will be used by the Board to determine trigger conditions provided by the District’s Drought Contingency Plan.

**5a. Performance Standard** –The District will make an assessment of drought conditions in the District and will brief the District Board at each regularly scheduled Board meeting.

**5a. Performance Measurement** – District staff provided multiple drought assessment documents to the Board members at each of the 11 regular Board meetings in 2016. These included the most recent Palmer Drought Severity Index, Crop Moisture Index, U.S. Drought Monitor for Texas, and U.S. Seasonal Drought Outlook. Board members also are shown maps at each board meeting addressing current departure from normal precipitation. These slides show the 30-day, 60-day, and 90-day departure from the norm. There was no regular Board meeting held in December, 2016.

**5b. Objective** – Require 100 percent of entities that are mandated by the State of Texas to have drought contingency plans, to submit those plans to the District or follow the District’s plan when applying for a permit from the District for water production.

**5b. Performance Standard** – Review 100 percent of the drought contingency plans submitted as a result of permitting, whenever permit applications for water production are received. The number of drought contingency plans required to be submitted by permitted entities to the District as part of the well permitting process and the number of drought contingency plans actually submitted to the District will be described in the Annual Report to the District Board.

**5b. Performance Measurement** – **35 permit applications were received during 2016 requiring a drought contingency plan, and each was in agreement to abide by the District Water Conservation Plan (DWCP) revised and adopted December 2, 2010. No permits were received in 2016 requiring a review of an existing drought contingency plan.**

**All applicants for permitted wells are required to sign the application attesting to the submission of their own drought contingency plan or the agreement to abide by the District Plan.**

**5c. Objective** – The District drought contingency plan will be reviewed for effectiveness and needed updates once annually.

**5c. Performance Standard** – A report summarizing the findings of the annual review of the District drought contingency plan will be included in the Annual Report of the District Board of Directors.

**5c. Performance Measurement** – A District Drought Contingency Plan was developed and adopted November 4, 2010. The DDCP was reviewed by the Education/Conservation Committee on September 16, 2016. Following the annual review, the committee reported to the entire Board on October 13, 2016 there were no recommended amendments. This document is reviewed annually by the subcommittee during September or October. A subcommittee report is presented to the Board regarding any recommendations for updates, changes, or additions needed.

**6. Implement Strategies to Promote Water Conservation:**

**6a. Objective** - Require 100 percent of the water applicants requesting a permit for water production within the District to submit a water conservation plan, unless one is already on file with the District at the time of the permit application, or agree to comply with the District's adopted Water Conservation Plan.

**6a. Performance Standard** – Review 100 percent of the water conservation plans submitted as a result of permit requirements to ensure compliance with permit conditions. The number of water conservation plans required to be submitted by water permittees to the District that year as part of the well permitting process and the number of water conservation plans actually submitted to the District will be reported in the Annual Report to the District Board of Directors. If the permittee chooses to agree to follow the District's adopted Water Conservation Plan in lieu of submitting a water conservation plan, then that number will be indicated in the Annual Report to the District Board.

**6a. Performance Measurement** - **35 permit applications were received during 2016. No water conservation plans were received as a result of permitting requirements. All 35 applicants agreed to abide by the District Water Conservation Plan revised and adopted December 2, 2010.**

- **Plans requiring Water Conservation Plans - 35**
- **Water Conservation Plans submitted – 0**
- **Water Conservation Plans reviewed – 0**
- **Applicants to abide by the District Water Conservation Plan – 35**

**6b. Objective** – Develop a system for measurement and evaluation of groundwater supplies.

**6b. Performance Standard** – Water level monitoring wells will be identified for Brazos River Alluvium, Yegua-Jackson, Sparta, Queen City, Carrizo, Calvert Bluff, Simsboro and Hooper aquifers. At least two (2) wells per aquifer will be monitored on an annual basis to track changes in static water levels.

**6b. Performance Measurement** – At this time 149 wells are in the monitoring network. The Brazos River Alluvium, Simsboro, Hooper, Sparta, Yegua Jackson, Queen City, Carrizo, and Calvert Bluff aquifers all have at least 2 monitoring wells. The District staff is working to cultivate monitoring wells in all of the aquifers. A total of 517 readings were taken during 2016. A report on well monitoring was given each month during the Board of Directors meeting. Below is a listing of monitored readings by aquifer.

<b>Aquifer</b>	<b>Readings</b>	<b># Monitor Wells</b>
<b>Hooper</b>	<b>56</b>	<b>18</b>
<b>Simsboro</b>	<b>180</b>	<b>57</b>
<b>Calvert Bluff</b>	<b>37</b>	<b>11</b>
<b>Carrizo</b>	<b>27</b>	<b>7</b>
<b>Queen City</b>	<b>12</b>	<b>3</b>
<b>Sparta</b>	<b>69</b>	<b>20</b>
<b>Yegua Jackson</b>	<b>29</b>	<b>9</b>
<b>Brazos River Alluvium</b>	<b>107</b>	<b>24</b>
<b>Total</b>	<b>517</b>	<b>149</b>

**6c. Objective** – Assist in obtaining grant funds for the implementation of water conservation methods. Work with the appropriate state and federal agencies to facilitate bringing grant funds to various groups within the District boundaries to develop and implement water conservation methods. Work with local entities to help develop and implement water conservation methods. The District will meet with at least one state or federal agency annually in order to discuss bringing water conservation methods grant funds into the District.

**6c. Performance Standard** – Number of meetings held annually with at least one state or federal agency and the number of grants for water conservation methods applied for and obtained will be included in the annual report to the District Board of Directors.

**6c. Performance Measurement** – **A meeting was held with Natural Resources Conservation Service to determine if any grant money was available and, if so, what categories would be eligible. This was done to facilitate bringing grant funds into the District for development of implementation of water conservation methods.**

**The meeting was held in Franklin August 15, 2016. A discussion was held about a possible cost-share program for farmers/irrigators using poor quality water creating irrigation efficiency issues. The NRCS staff agreed to look into the issue and see if something could be done.**

**The General Manager corresponded by email to Cameron Turner, TWDB, concerning agricultural grant money available to groundwater conservation districts and projects eligible for grant consideration. The email communications in September and December indicated there would be grant money available during 2017. Districts are required to submit a proposal if a District project is identified.**



**6c. Performance Standard** – Once annually, the District will conduct a meeting to address potential District grant funding for water conservation projects. Following proposal submission, applications will be reviewed for possible District Board approval. The number of water conservation projects submitted and the number of projects approved for grant funding by the District will be reported in the Annual Report to the District Board.

**Request for Proposals for granting opportunities** was sent out to interested entities in early December, 2015. The District received 9 proposals prior to the January 23<sup>rd</sup> subcommittee meeting to discuss proposals received and develop recommendations to the Board.

The Grant Committee met on December 18, 2015 to discuss and formulate recommendations on the establishment the grant program parameters including initial funding available, sources of replenishment of grant funding, and acceptable levels of indirect costs associated with certain proposals. Recommendations were formulated and presented to the District Board during the February 11, 2016 meeting. No grant proposals were approved following independent assessments by each of the Board members.

The District renewed a commitment to continue grant obligations to The City of College Station, Wickson SUD, and Wellborn SUD regarding the BVWaterSmart Irrigation Network and its ongoing operations. This grant received approval during the November 10, 2016 Board meeting.

Grant contracts associated with water well plugging continued during 2016. There were 12 entities that signed grant contracts with the District to engage in the plugging of a water well. Each of these contracts were fulfilled during 2016.

**7. Implement Strategies to Protect Water Quality:**

**7a. Objective** - Develop baseline water quality data and a system for continued evaluation of groundwater quality.

**7a. Performance Standard** – Develop general understanding of water quality within aquifers in the District based on TCEQ and TWDB data. Coordinate with TCEQ on water quality issues.

**7a. Long term water quality reports taken by the TWDB over many years have been compiled by LBG-Guyton and made available to the directors. The material will be summarized for Board member use. Future plans are to incorporate the data into the District website and accessible to the general public.**

**Water samples are accepted at the District Office in an effort to help facilitate water sampling. Samples are delivered to the Texas A&M University Soil, Forage, and Water Laboratories. Copies of the results are obtained by the District for future reference. Four water samples were gathered by District staff for analysis during 2016.**

**7b. Objective** – Require all water permittees that are required by the TCEQ to have well vulnerability studies prior to constructing a well, to provide evidence of the study to the District prior to construction of a well within the District.

**7b. Performance Standard** – Review all vulnerability studies submitted as a result of permit requirements to help ensure water quality protection.

**7b. Performance Measurement** – There were no wells submitted for permitting or construction that required well vulnerability studies. No well vulnerability studies were reviewed.

**7c. Objective** – Provide information to the general public and the schools within the District on the importance of protecting water quality.

**7c. Performance Standard** – The District will include a page on the Districts web-site devoted to water quality issues and will provide information to water permittees on wellhead protection programs.

**7c. Performance Measurement** – A water quality page was added to the District website during the major reconstruction in December, 2012. Several pages deal with water quality protection including a well plugging page and well head protection through proper capping of unused wells.

**All new wells drilled or existing wells within the District that were registered or permitted (excluding rig supply and fracturing supply wells) were provided two brochures addressing protection of the wellhead and proper well construction.**

**Approximately 4,900 4<sup>th</sup>, 5<sup>th</sup>, and 7<sup>th</sup> grade students in the College Station, Bryan, and all Robertson County ISDs were taught about protecting aquifers from contaminants and the importance of protecting the wellhead. This was done in conjunction with a teaching session that included aquifer characteristics, the water cycle, and water conservation.**

**8. Implement Strategies to Assess Adopted Desired Future Conditions**

**8a. Objective** – At least once every three years, the District will evaluate well water level monitoring data and determine whether the change in water levels is in general conformance with the DFCs adopted by the District. The District will estimate total annual groundwater production for each aquifer based on the water use reports, estimated exempted use and other relevant information, and compare these production estimates to the MAGs.

**8a. Performance Standard** – At least once every three years, the General Manager will report to the District the water level data obtained from the monitoring wells in each aquifer, the average artesian head change for each aquifer calculated from the water levels of the monitoring wells in each aquifer, a comparison of the average artesian head change for each aquifer with the DFCs for each aquifer, and the District progress in conforming with the DFCs.

**During the September 10, 2015 Board meeting, John Seifert gave a presentation summarizing the data obtained from each of the wells monitored in all aquifers managed by the District. The presentation included the average head change in each of the aquifers calculated from data obtained from the monitoring wells within each respective aquifer, and how the artesian head calculated compared with the DFC established for each aquifer.**

**The presentation clearly indicated that the water production within the District is having a lesser effect than the current groundwater availability model predicts. The District is currently expanding the well monitoring effort is several of the minor aquifers that are not as heavily used but need more monitoring data. Unconfined wells are also being developed in each of the aquifers for incorporation into the average artesian reduction calculations. No presentation was given during 2016. The next presentation will occur during the March, 2017 Board meeting once winter water level measurements have been obtained.**

**8a. Performance Standard** – At least once every year, the General Manager will report to the District Board the total permitted groundwater production and the estimated annual groundwater production for each aquifer and compare these amounts to the MAGs.

**During each Permit Hearing, Board members are provided an informational sheet detailing the MAG, total permitted (to date) water production, and annual water production for the past year for each aquifer. The sheet for 2016 detailed water production (updated each February) for 2009-2016.**