

BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT



2017 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 40 new non-exempt wells were permitted during 2017. The District registered 121 exempt wells (75 in Brazos County, 41 in Robertson County, 5 oil and gas rig supply) in both counties combined. Totals for all wells ending 2017:

Domestic/Livestock (Exempt) – 1509

Gas & Oil (Exempt) – 1104

Historic Use (Permitted) – 623

Operating (Permitted) – 209

Drilling/Operating (Permitted) - 149

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: 40

Type of applications made/permits issued

- **Agricultural Irrigation – 18/18**
- **Industrial – 22/22**
- **Municipal – 0/0**
- **Rural Public Water Supply – 0/0**
- **Steam Electric – 0/0**

**2017 Permitted Water Production in Acre Feet by Aquifer/User Group
(New Permits Issued in 2017)**

| | Agricultural | Industrial | Municipal | Rural Water | Steam Electric | Transported | Total Permitted |
|----------------------|---------------------|-------------------|------------------|--------------------|-----------------------|--------------------|------------------------|
| BRA | 1,250.00 | 500.00 | | | | | 1,750.00 |
| Hooper | | | | | | | 0.0 |
| Simsboro | 400.00 | 120.00 | | | | | 520.00 |
| Calvert Bluff | 151.00 | | | | | | 151.00 |
| Carizzo | | | | | | | 0.0 |
| Queen City | | | | | | | 0.0 |
| Sparta | 84.80 | 780.00 | | | | | 864.80 |
| Yegua-Jackson | | 2.00 | | | | | 2.00 |
| Gulf Coast | | | | | | | 0.00 |
| | 1,885.80 | 1,402.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3,287.80 |

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 2017 actual water production, permitted allowance, and fees for each metered well in the District are shown below:

| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
|------------------------------------|---------------------|------------------|---------------------------|---------------------|
| Brazos River Authority | BVHU-0246 | 5.30 | 1.6943 | \$ 23.46 |
| Coomer, Melanie | BVOP-0008 | 1.10 | 0.1880 | \$ 2.60 |
| Lake Limestone Water, Inc | BVHU-0302/BVOP-0134 | 40.75 | 12.2531 | \$ 169.69 |
| Lake Limestone Water, Inc | BVHU-0303/BVOP-0135 | 80.51 | 26.2332 | \$ 363.29 |
| Nerro Supply | BVHU-0983/BVOP-0155 | 15.00 | 16.5683 | \$ 229.45 |
| Rimrock Beefmasters, LLC | BVOP-0002 | 2.69 | 0.2945 | \$ 4.08 |
| Robertson County WSC | BVHU-0015/BVOP-0130 | 259.60 | 190.5178 | \$ 2,638.42 |
| Robertson County WSC | BVHU-0016/BVOP-0131 | 236.40 | 64.0550 | \$ 887.08 |
| Robertson County WSC | BVHU-0017 | 134.50 | 2.1820 | \$ 30.22 |
| Robertson County WSC | BVHU-0018/BVOP-0132 | 71.50 | 90.0292 | \$ 1,246.78 |
| Running Creek RV Park | BVOP-0139 | 8.00 | 0.9279 | \$ 12.85 |
| Tri-County SUD | BVHU-0023 | 119.30 | 81.6469 | \$ 1,130.70 |
| Tri-County SUD | BVHU-0024 | 84.00 | 89.2586 | \$ 1,236.11 |
| Tri-County SUD | BVDO-0188 | 145.51 | 0.0000 | \$ - |
| Twin Creek WSC | BVHU-0019 | 63.31 | 41.6264 | \$ 576.47 |
| Twin Creek WSC | BVHU-0020 | 53.06 | 33.1900 | \$ 459.64 |
| Twin Creek WSC | BVHU-0021 | 96.07 | 52.5455 | \$ 727.69 |
| Twin Creek WSC | BVHU-0022 | 25.59 | 0.7611 | \$ 10.54 |
| Watson, George | BVOP-0170 | 1.60 | 1.0258 | \$ 14.21 |
| Wellborn SUD | BVDO-0014 | 1935.00 | 207.4721 | \$ 2,873.21 |
| Wellborn SUD | BVHU-0058/BVOP-0136 | 1153.35 | 904.0175 | \$ 12,519.44 |
| Wickson Creek - Robertson | BVHU-0031 | 55.00 | 36.6480 | \$ 507.53 |
| Rural Robertson County | | 4587.14 | 1853.1352 | \$ 25,663.45 |
| Brazos Valley Septic & Water | BVHU-0981/BVOP-0153 | 5.00 | 3.5900 | \$ 49.72 |
| Nasir Veerani dba Wheelock Express | BVDO-0196 | 1.00 | 0.4423 | \$ 6.13 |
| Nerro Supply | BVHU-0980/BVOP-0150 | 15.00 | 11.7750 | \$ 163.07 |
| Nerro Supply | BVHU-0982/BVOP-0151 | 30.00 | 22.4130 | \$ 310.39 |
| Nerro Supply | BVHU-0984/BVOP-0152 | 26.00 | 35.5706 | \$ 492.61 |
| Nerro Supply | BVHU-0985/BVOP-0154 | 26.00 | 26.0934 | \$ 361.36 |
| Wellborn SUD | BVHU-0053 | 278.30 | 105.3334 | \$ 1,458.73 |
| Wellborn SUD | BVHU-0054 | 258.13 | 0.0000 | \$ - |
| Wellborn SUD | BVHU-0055 | 225.87 | 241.0708 | \$ 3,338.51 |
| Wellborn SUD | BVHU-0056 | 225.87 | 266.0092 | \$ 3,683.87 |
| Wellborn SUD | BVHU-0057 | 297.125 | 324.1987 | \$ 4,489.72 |
| Wellborn SUD | BVOP-0174 | 125.815 | 0.0000 | \$ - |
| Wickson Creek - Brazos | BVDO-0042 | 700.00 | 518.0610 | \$ 7,174.45 |
| Wickson Creek - Brazos | BVDO-0142 | 400.00 | 0.0000 | \$ - |
| Wickson Creek - Brazos | BVHU-0027 | 518.00 | 523.2784 | \$ 7,246.71 |
| Wickson Creek - Brazos | BVHU-0028 | 72.00 | 0.0000 | \$ - |
| Wickson Creek - Brazos | BVHU-0029 | 335.00 | 0.0000 | \$ - |
| Wickson Creek - Brazos | BVHU-0030 | 591.00 | 577.4111 | \$ 7,996.37 |
| Wickson Creek - Brazos | BVOP-0048 | 500.00 | 360.0020 | \$ 4,985.55 |
| Rural Brazos County | | 4630.11 | 3015.2489 | \$ 41,757.18 |

| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
|----------------------------|---------------------|------------------|---------------------------|----------------------|
| Bremond, City of | BVHU-0412/BVOP-0145 | 40.00 | 0.0000 | \$ - |
| Bremond, City of | BVHU-0413/BVOP-0146 | 60.00 | 0.0000 | \$ - |
| Bremond, City of | BVHU-0414/BVOP-0147 | 84.00 | 22.7128 | \$ 314.54 |
| Bremond, City of | BVHU-0415/BVOP-0148 | 123.00 | 44.8978 | \$ 621.77 |
| Bremond, City of | BVHU-0416/BVOP-0149 | 134.00 | 42.5563 | \$ 589.35 |
| Calvert, City of | BVOP-0010 | 100.00 | 0.0000 | \$ - |
| Calvert, City of | BVOP-0011 | 182.00 | 71.9501 | \$ 996.41 |
| Calvert, City of | BVOP-0012 | 273.00 | 142.1417 | \$ 1,968.47 |
| Franklin, City of | BVDO-0054 | 126.00 | 106.9348 | \$ 1,480.90 |
| Franklin, City of | BVOP-0027 | 116.00 | 6.3569 | \$ 88.03 |
| Franklin, City of | BVOP-0028 | 116.00 | 66.7999 | \$ 925.09 |
| Franklin, City of | BVOP-0029 | 116.00 | 46.7502 | \$ 647.43 |
| Hearne, City of | BVHU-0011 | 494.00 | 487.3148 | \$ 6,748.66 |
| Hearne, City of | BVHU-0012 | 577.00 | 201.6382 | \$ 2,792.42 |
| Hearne, City of | BVHU-0013 | 312.00 | 24.0263 | \$ 332.73 |
| Hearne, City of | BVHU-0014 | 474.00 | 231.7071 | \$ 3,208.83 |
| | | | | \$ - |
| Municipal Robertson | | 3327.00 | 1495.7869 | \$ 20,714.66 |
| Bryan, City of | BVDO-0003 | 4838.00 | 2050.7348 | \$ 28,399.94 |
| Bryan, City of | BVHU-0001 | 716.00 | 0.0000 | \$ - |
| Bryan, City of | BVHU-0002 | 686.00 | 0.0000 | \$ - |
| Bryan, City of | BVHU-0003 | 2286.54 | 0.8838 | \$ 12.24 |
| Bryan, City of | BVHU-0004 | 1413.53 | 0.0000 | \$ - |
| Bryan, City of | BVHU-0005 | 3020.04 | 1521.5236 | \$ 21,071.07 |
| Bryan, City of | BVHU-0006 | 3784.56 | 2779.0984 | \$ 38,486.81 |
| Bryan, City of | BVHU-0007 | 3492.51 | 518.1426 | \$ 7,175.58 |
| Bryan, City of | BVHU-0008 | 3841.55 | 1233.4779 | \$ 17,082.03 |
| Bryan, City of | BVHU-0009 | 3297.04 | 2636.2417 | \$ 36,508.43 |
| Bryan, City of | BVHU-0010 | 3460.72 | 2908.0132 | \$ 40,272.11 |
| Bryan, City of | BVHU-0041 | 2703.70 | 0.0000 | \$ - |
| College Station, City of | BVDO-0001 | 1290.00 | 105.7085 | \$ 1,463.92 |
| College Station, City of | BVDO-0002 | 1290.00 | 161.7105 | \$ 2,239.47 |
| College Station, City of | BVDO-0013 | 4839.00 | 2783.5205 | \$ 38,548.05 |
| College Station, City of | BVDO-0053 | 2390.00 | 2027.4851 | \$ 28,077.97 |
| College Station, City of | BVDO-0152 | 2855.00 | 0.0000 | \$ - |
| College Station, City of | BVHU-0038 | 2423.00 | 2038.0725 | \$ 28,224.59 |
| College Station, City of | BVHU-0039 | 2386.00 | 1661.8309 | \$ 23,014.14 |
| College Station, City of | BVHU-0040 | 2381.00 | 1219.8408 | \$ 16,893.17 |
| College Station, City of | BVHU-0042 | 2726.00 | 2091.7492 | \$ 28,967.94 |
| College Station, City of | BVHU-0043 | 2792.00 | 1492.8932 | \$ 20,674.58 |
| Texas A&M University | BVHU-0450 | 789.68 | 417.6633 | \$ 5,784.08 |
| Texas A&M University | BVHU-0451 | 753.53 | 379.7687 | \$ 5,259.29 |
| Texas A&M University | BVHU-0452 | 235.43 | 201.1717 | \$ 2,785.96 |
| Texas A&M University | BVHU-0453 | 745.88 | 516.4600 | \$ 7,152.28 |
| Texas A&M University | BVHU-0454 | 2337.14 | 1290.3935 | \$ 17,870.23 |
| Texas A&M University | BVHU-0455 | 2864.00 | 1621.4620 | \$ 22,455.09 |
| Texas A&M University | BVHU-0456 | 2444.77 | 761.0073 | \$ 10,538.94 |
| Texas A&M University | BVOP-0003 | 185.00 | 169.9897 | \$ 2,354.13 |
| Texas A&M University | BVOP-0004 | 282.00 | 237.3784 | \$ 3,287.37 |
| Texas A&M University | BVOP-0005 | 523.00 | 53.7801 | \$ 744.78 |
| | | | | \$ - |
| Municipal Brazos | | 70072.62 | 32880.0019 | \$ 455,344.21 |

| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
|-----------------------------------|---------------------|------------------|---------------------------|--------------------|
| Arbol Exploration | BVOP-0262 | 1.10 | 1.1000 | Fee collected 2016 |
| Calvert Country Club | BVOP-0050 | 0.25 | 0.0724 | \$ 1.00 |
| Calvert Country Club | BVOP-0051 | 7.52 | 2.7668 | \$ 38.32 |
| Calvert Country Club | BVOP-0052 | 35.12 | 4.2012 | \$ 58.18 |
| Calvert Country Club | BVOP-0053 | 35.11 | 5.0050 | \$ 69.31 |
| City of College Station | BVDO-0226 | 5.00 | 0.0000 | \$ - |
| Circle X Land & Cattle (SynFuels) | BVDO-0039 | 40.00 | 0.0000 | \$ - |
| Covey Park Operating, LLC | BVOP-0137 | 125.00 | 0.0000 | \$ - |
| Covey Park Operating, LLC | BVOP-0138 | 125.00 | 0.0000 | \$ - |
| Energy Transfer | BVDO-0038 | 3.30 | 0.1455 | \$ 2.01 |
| Franklin ISD | BVDO-0056 | 65.00 | 28.8475 | \$ 399.50 |
| Franklin ISD (Sports Field) | BVDO-0119 | 141.00 | 15.6711 | \$ 217.02 |
| Neff, Charles | BVDO-0032 | 32.20 | 0.0000 | \$ - |
| Oak Grove Country Club | BVOP-0049 | 51.00 | 26.8227 | \$ 371.46 |
| Obenco, Inc. | BVOP-0280 | 150.00 | 150.0000 | \$ 2,077.30 |
| Obenco, Inc. | BVOP-0281 | 20.00 | 20.0000 | \$ 276.97 |
| Obenco, Inc. | BVOP-0282 | 30.00 | 30.0000 | \$ 415.46 |
| Obenco, Inc. | BVOP-0283 | 30.00 | 30.0000 | \$ 415.46 |
| Obenco, Inc. | BVOP-0286 | 10.00 | 10.0000 | \$ 138.49 |
| Obenco, Inc. | BVOP-0287 | 10.00 | 10.0000 | \$ 138.49 |
| Obenco, Inc. | BVOP-0288 | 8.00 | 8.0000 | \$ 110.79 |
| Obenco, Inc. | BVOP-0289 | 8.00 | 8.0000 | \$ 110.79 |
| Obenco, Inc. | BVDO-0221 | 150.00 | 150.0000 | \$ 2,077.30 |
| Obenco, Inc. | BVDO-0228 | 15.00 | 15.0000 | \$ 207.73 |
| Obenco, Inc. | BVDO-0229 | 30.00 | 30.0000 | \$ 415.46 |
| Obenco, Inc. | BVDO-0230 | 30.00 | 30.0000 | \$ 415.46 |
| Major Oak Power, LLC | BVHU-0044 | 8.10 | 1.7906 | \$ 24.80 |
| Major Oak Power, LLC | BVOP-0144 | 300.00 | 0.0000 | \$ - |
| Sanderson Farms, Inc. - Robertson | BVHU-0026/BVOP-0133 | 56.00 | 35.7151 | \$ 494.61 |
| Siegert, Paul | BVOP-0160 | 5.00 | 0.0000 | \$ - |
| Skiles, Dr. Clifford | BVDO-0136 | 750.00 | 30.0000 | \$ 415.46 |
| Sunoco Logistics | BVOP-0200 | 2.00 | 0.0000 | \$ - |
| Trend Gathering & Treating, LP | BVOP-0163 | 2.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0230 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0231 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0232 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0233 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0234 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0235 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0236 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0237 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0238 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0264 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0284 | 150.00 | 0.0000 | \$ - |
| Union Pacific Railroad | BVOP-0285 | 150.00 | 0.0000 | \$ - |
| XTO Energy | BVOP-0212 | 25.00 | 15.6847 | \$ 217.21 |
| XTO Energy | BVOP-0213 | 25.00 | 14.7543 | \$ 204.33 |
| XTO Energy | BVOP-0214 | 25.00 | 5.1299 | \$ 71.04 |
| Industrial Robertson | | 4155.70 | 678.7068 | \$ 9,383.95 |

| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
|----------------------------------|------------|------------------|---------------------------|--------------------|
| 1980 Phillips Group, LLC | BVHU-0069 | 154.60 | 137.7068 | \$ 1,907.06 |
| Borski, Dorothy | BVOP-0172 | 56.00 | 0.0000 | \$ - |
| Brooks, James M. (GEO 3) | BVDO-0099 | 20.00 | 13.2543 | \$ 183.55 |
| Brownstone Reserve | BVDO-0222 | 2.00 | 0.0866 | \$ 1.20 |
| Bryan Texas Utilities | BVHU-0154 | 177.44 | 62.5459 | \$ 866.18 |
| C-3 College Station, LLC | BVDO-0201 | 22.00 | 8.2781 | \$ 114.64 |
| Creek Meadow Partners | BVDO-0207 | 25.00 | 0.0000 | \$ - |
| Homestead U | BVDO-0124 | 22.00 | 11.6206 | \$ 160.93 |
| Circle D Nurseries | BVDO-0028 | 1.34 | 0.8976 | \$ 12.43 |
| Cotrone, Charles | BVOP-0278 | 100.00 | 0.2803 | \$ 3.88 |
| Cotrone, Charles | BVOP-0279 | 100.00 | 0.0000 | \$ - |
| DeVore, Jason | BVDO-0021 | 5.00 | 0.0000 | \$ - |
| GLP Technologies | BVHU-0092 | 5.00 | 0.2207 | \$ 3.06 |
| Grid Raceplex Holdings, Ltd. | BVOP-0177 | 30.00 | 0.0000 | \$ - |
| Grid Raceplex Holdings, Ltd. | BVOP-0178 | 30.00 | 0.0000 | \$ - |
| Grid Raceplex Holdings, Ltd. | BVOP-0179 | 30.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0157 | 70.00 | 5.4136 | \$ 74.97 |
| Hawkwood Energy Operating, LLC | BVDO-0158 | 2.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0159 | 120.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0160 | 120.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0162 | 35.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0163 | 35.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0166 | 35.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0180 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0182 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0183 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0190 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVDO-0212 | 150.00 | 28.1632 | Fee collected 2016 |
| Hawkwood Energy Operating, LLC | BVDO-0213 | 150.00 | 20.9022 | Fee collected 2016 |
| Hawkwood Energy Operating, LLC | BVDO-0218 | 150.00 | 150.0000 | \$ 2,077.30 |
| Hawkwood Energy Operating, LLC | BVDO-0219 | 150.00 | 150.0000 | \$ 2,077.30 |
| Hawkwood Energy Operating, LLC | BVDO-0223 | 150.00 | 150.0000 | \$ 2,077.30 |
| Hawkwood Energy Operating, LLC | BVDO-0224 | 150.00 | 150.0000 | \$ 2,077.30 |
| Hawkwood Energy Operating, LLC | BVOP-0176 | 100.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0184 | 80.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0185 | 120.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0186 | 200.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0187 | 200.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0194 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0195 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0196 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0197 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0198 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0205 | 70.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0216 | 30.00 | 0.0000 | \$ - |
| Hawkwood Energy Operating, LLC | BVOP-0269 | 150.00 | 64.4129 | Fee collected 2016 |
| Hawkwood Energy Operating, LLC | BVOP-0270 | 150.00 | 72.7756 | Fee collected 2016 |
| Hawkwood Energy Operating, LLC | BVOP-0271 | 150.00 | 67.9360 | Fee collected 2016 |
| Hawkwood Energy Operating, LLC | BVOP-0272 | 150.00 | 64.7474 | Fee collected 2016 |
| Hill Ranch | BVOP-0218 | 150.00 | 0.0000 | \$ - |
| Knife River Corporation | BVDO-0117 | 150.00 | 20.3151 | \$ 281.34 |
| Knife River Corporation | BVOP-0158 | 32.00 | 5.2171 | \$ 72.25 |
| Knife River Corporation | BVOP-0277 | 150.00 | 0.0000 | \$ - |
| Melvin Estate | BVOP-0182* | 110.00 | 0.0000 | \$ - |
| Millican United Methodist Church | BVDO-0143 | 5.00 | 1.2276 | \$ 17.00 |
| Miremont One Golf Course | BVOP-0024 | 78.85 | 138.5738 | \$ 1,919.06 |
| Miremont One Golf Course | BVOP-0025 | 224.28 | 245.6049 | \$ 3,401.30 |
| Miremont One Golf Course | BVOP-0026 | 432.74 | 222.8064 | \$ 3,085.57 |
| Mustang SWD Operating, LLC | BVDO-0199 | 2.00 | 0.0000 | \$ - |
| Opersteyn, Steve | BVHU-0457 | 530.00 | 0.0000 | \$ - |
| Price, David | BVOP-0173 | 19.36 | 0.0000 | \$ - |

| | | | | | |
|--------------------------------|-----------|----------------|------------------|-----------|------------------|
| Pyhrr, Walter (Fortex Grass) | BVDO-0019 | 1.00 | 0.4711 | \$ | 6.52 |
| Sahara Reality Group | BVDO-0024 | 10.00 | 0.0011 | \$ | 0.02 |
| Sanderson Farms, Inc. - Brazos | BVDO-0140 | 0.00 | 0.0000 | \$ | - |
| Sanderson Farms, Inc. - Brazos | BVHU-0025 | 2057.00 | 1327.6927 | \$ | 18,386.77 |
| Smith, Carey D. | BVDO-0215 | 25.00 | 2.9923 | \$ | 41.44 |
| Stripes, LLC | BVDO-0135 | 1.00 | 0.0005 | \$ | 0.01 |
| Stylecraft Builders Inc. | BVDO-0081 | 5.00 | 1.3122 | \$ | 18.17 |
| Industrial Brazos | | 8110.61 | 3125.4566 | \$ | 38,866.55 |

| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
|----------------------------------|---------------------|------------------|---------------------------|--------------------|
| Anderson Estate | BVHU-1070 | 600.00 | 0.0000 | \$ - |
| Anderson Estate | BVHU-1071 | 600.00 | 0.0000 | \$ - |
| Brien, James & Ellen | BVDO-0134 | 542.00 | 115.6120 | \$ 14.45 |
| Bui & Nguyen Poultry, LLC | BVDO-0227 | 30.00 | 0.0000 | \$ - |
| Burnett, David | BVDO-0009 | 242.00 | 18.1360 | \$ 2.27 |
| Carpenter, Dale | BVDO-0100 | 117.00 | 0.5322 | \$ 0.07 |
| Circle X Camp Cooley Ranch, Ltd. | BVDO-0017 | 110.00 | 0.0000 | \$ - |
| Circle X Camp Cooley Ranch, Ltd. | BVDO-0025 | 110.00 | 0.0000 | \$ - |
| Circle X Camp Cooley Ranch, Ltd. | BVDO-0026 | 110.00 | 1.0818 | \$ 0.14 |
| Circle X Camp Cooley Ranch, Ltd. | BVDO-0027 | 110.00 | 0.0000 | \$ - |
| Circle X Camp Cooley Ranch, Ltd. | BVOP-0001 | 110.00 | 0.0000 | \$ - |
| Circle X Land & Cattle | BVHU-0433* | 280.00 | 2.1130 | \$ 0.26 |
| Circle X Land & Cattle | BVHU-0434* | 280.00 | 0.0000 | \$ - |
| Circle X Land & Cattle | BVHU-0435* | 2800.00 | 47.6546 | \$ 5.96 |
| Circle X Land & Cattle | BVHU-0436* | 56.00 | 0.0000 | \$ - |
| Circle X Land & Cattle | BVHU-0438* | 56.00 | 0.0000 | \$ - |
| Circle X Land & Cattle | BVHU-0439* | 56.00 | 0.0000 | \$ - |
| Conn, Larry | BVDO-0018 | 35.00 | 11.2256 | \$ 1.40 |
| Conn, Larry | BVDO-0046 | 35.00 | 9.2067 | \$ 1.15 |
| Conn, Larry | BVOP-0094 | 35.00 | 0.0000 | \$ - |
| Corpora, Vence | BVDO-0055 | 600.00 | 121.7243 | \$ 15.22 |
| Corpora, Ryan, Sloat | BVDO-0090 | 600.00 | 158.7360 | \$ 19.84 |
| Corpora, Ryan, Sloat | BVDO-0091 | 700.00 | 49.4945 | \$ 6.19 |
| Epps, Frank N | BVOP-0047 | 30.00 | 0.0000 | \$ - |
| Fagan, James | BVDO-0098 | 100.00 | 0.0000 | \$ - |
| Fazzino, Lee | BVHU-1025 | 560.00 | 0.0000 | \$ - |
| Gregurek, Edward L. | BVDO-0037 | 26.00 | 0.2971 | \$ 0.04 |
| Liem HOA Poultry, LLC | BVDO-0184 | 35.00 | 5.7829 | \$ 0.72 |
| Liem HOA Poultry, LLC | BVDO-0185 | 35.00 | 2.6106 | \$ 0.33 |
| Liem HOA Poultry, LLC | BVDO-0186 | 35.00 | 0.0000 | \$ - |
| Liere Dairy | BVDO-0118 | 720.00 | 6.2734 | \$ 0.78 |
| Liere Dairy | BVHU-1101 | 254.00 | 67.0675 | \$ 8.38 |
| Liere Dairy | BVHU-1102 | 720.00 | 61.3777 | \$ 7.67 |
| Lockhart, Bart | BVHU-0142 | 160.00 | 3.0020 | \$ 0.38 |
| Mackey, Willis | BVDO-0103 | 20.00 | 0.1841 | \$ 0.02 |
| Neal, Murray | BVDO-0102 | 24.00 | 0.0001 | \$ 0.00 |
| Nguyen, Yen Thi | BVDO-0225 | 30.00 | 0.0000 | \$ - |
| Philipello, Nathan | BVDO-0147 | 30.00 | 0.0000 | \$ - |
| Philipello, Nathan | BVDO-0148 | 30.00 | 11.4187 | \$ 1.43 |
| Philipello, Nathan | BVDO-0149 | 30.00 | 11.7913 | \$ 1.47 |
| Philipello, Nathan | BVDO-0208 | 30.00 | 2.3986 | \$ 0.30 |
| Philipello, Nathan | BVDO-0209 | 30.00 | 4.9503 | \$ 0.62 |
| Philipello, Nathan | BVDO-0210 | 30.00 | 0.0000 | \$ - |
| Rampy, Ty | BVOP-0017 | 125.00 | 0.0000 | \$ - |
| Rampy, Ty | BVOP-0018 | 125.00 | 0.0000 | \$ - |
| Reistino, Maria & Melissa | BVDO-0092 | 894.00 | 203.1125 | \$ 25.39 |
| Rolke Ranch | BVHU-0143 | 45.00 | 0.0000 | \$ - |
| Rolke Ranch | BVHU-0144 | 15.00 | 0.0000 | \$ - |
| Rolke Ranch | BVHU-0145 | 30.00 | 0.0000 | \$ - |
| Rolke Ranch | BVHU-0146 | 45.00 | 0.0000 | \$ - |
| Skiles, Clifford III (Trey) | BVDO-0108 | 1400.00 | 1267.0000 | \$ 158.38 |
| Skiles Family Partnership, C.A. | BVHU-1058/BVDO-0111 | 20770.00 | 10351.0000 | \$ 1,293.88 |
| Smitherman, Robert | BVDO-0172 | 30.00 | 0.0000 | \$ - |
| Smitherman, Robert | BVDO-0173 | 30.00 | 0.0000 | \$ - |
| Smitherman, Robert | BVDO-0174 | 30.00 | 2.8247 | \$ 0.35 |
| Smitherman, Robert | BVDO-0214 | 30.00 | 14.5571 | \$ 1.82 |
| Watson, Richard | BVDO-0115 | 54.50 | 25.0298 | \$ 3.13 |
| Wilson, Wayne or Linda* | BVOP-0223 | 140.00 | 0.0000 | \$ - |
| Wright, Larry | BVOP-0156 | 100.00 | 31.7157 | \$ 3.96 |
| Agricultural - Robertson | | 35006.50 | 12607.9108 | \$ 1,575.99 |

| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
|--|-------------|------------------|---------------------------|----------------------|
| A&F Farms (Dobrovolny, Jason) | BVOP-0119 | 30.00 | 0.0000 | \$ - |
| A&F Farms (Dobrovolny, Jason) | BVOP-0120 | 30.00 | 0.0000 | \$ - |
| A&F Farms (Dobrovolny, Jason) | BVOP-0121 | 40.00 | 0.0000 | \$ - |
| A&F Farms (Dobrovolny, Jason) | BVOP-0122 | 40.00 | 0.0000 | \$ - |
| A&F Farms (Dobrovolny, Jason) | BVOP-0123 | 40.00 | 0.0000 | \$ - |
| Brien, Jeff | BVDO-0113 | 120.00 | 0.0000 | \$ - |
| Carrabba Brothers | BVDO-0153 | 74.00 | 8.6592 | \$ 1.08 |
| Carrabba Brothers | BVOP-0165 | 56.67 | 0.0000 | \$ - |
| Carrabba Brothers | BVOP-0166 | 56.67 | 0.0000 | \$ - |
| Carrabba Brothers | BVOP-0167 | 56.66 | 0.0000 | \$ - |
| Circle X Land & Cattle | BVHU-0437* | 56.00 | 0.0000 | \$ - |
| Dawson, Daniel | BVDO-0052 | 19.00 | 16.7691 | \$ 2.10 |
| Forsthoff, Robert G. | BVHU-0502 | 20.00 | 0.0000 | \$ - |
| Forsthoff, Robert G. | BVHU-0503 | 20.00 | 0.0000 | \$ - |
| Forsthoff, Robert G. | BVHU-0504 | 20.00 | 0.0000 | \$ - |
| Greenwood, Kyle | BVDO-0123 | 60.00 | 3.8597 | \$ 0.48 |
| Inguran, LLC dba Sexing Technology | BVDO-0126 | 280.00 | 9.7130 | \$ 1.21 |
| Lampe, Michael | BVHU-0152 | 22.40 | 6.1387 | \$ 0.77 |
| Lampe, Michael | BVHU-0153 | 22.40 | 6.1387 | \$ 0.77 |
| Lampe, Michael | BVOP-0275 | 22.40 | 6.1387 | \$ 0.77 |
| Lampe, Michael | BVOP-0276 | 22.40 | 7.6722 | \$ 0.96 |
| McGuire, Charles | BVDO-0122 | 100.00 | 14.3074 | \$ 1.79 |
| Melvin Estate | BVOP-0183* | 165.00 | 0.0000 | \$ - |
| Messina Hoff Winery | BVDO-0075 | 80.00 | 4.6033 | \$ 0.58 |
| Messina Hoff Winery | BVHU-0077A | 4.30 | 2.1482 | \$ 0.27 |
| Paull, Marcella | BVDO-0146 | 40.00 | 2.5354 | \$ 0.32 |
| Relyea, Tim | BVOP-0274 | 40.00 | 25.9492 | \$ 3.24 |
| Ruffino, Preston J. III | BVOP-0159 | 111.00 | 0.0000 | \$ - |
| Scasta, Robert Lee | BVOP-0157 | 60.00 | 0.0000 | \$ - |
| Sharp, John | BVDO-0156* | 200.00 | 22.5778 | \$ 2.82 |
| Wall, Jerry | BVOP-0164* | 150.00 | 0.7281 | \$ 0.09 |
| Wall, Jim | BVDO-0150* | 200.00 | 0.0000 | \$ - |
| Agricultural - Brazos | | 2258.90 | 137.9387 | \$ 17.24 |
| | | | | |
| Name | Permit # | Permitted Amount | Water Prod. 2017 in ac/ft | Total Assessment |
| Oak Grove Management Co., LLC | BVDO-0031** | 537.00 | 371.8182 | \$ 92.95 |
| Oak Grove Management Co., LLC | BVOP-0020** | 274.00 | 10.5960 | \$ 2.65 |
| Major Oak Power, LLC | BVHU-0045** | 2887.00 | 1476.2545 | \$ 369.06 |
| Major Oak Power, LLC | BVHU-0046** | 2508.00 | 1297.0315 | \$ 324.26 |
| Major Oak Power, LLC | BVHU-0047** | 2116.00 | 2058.0695 | \$ 514.52 |
| Steam Electric - Robertson | | 8322.00 | 5213.7697 | \$ 1,303.44 |
| Grand Total | | 140469.48 | 61007.9555 | \$ 594,626.68 |
| * 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 – **158 wells are now being monitored across the District encompassing all aquifers. Of that number, 97 lie over the Carrizo-Wilcox group, 61 over the Brazos River Alluvium, Queen City, Sparta, and Yegua-Jackson. The total number of readings for all monitoring wells was 524. 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. It should be noted the District moved away from monthly to quarterly measurements in 2016 on the advice of the District’s hydro-geologist.**

- **2016 – 149 wells in the network – 517 measurements**
- **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 on September 20, 2017. This was the culmination of work commenced in early 2013 during which GMA 12 representatives re-evaluated 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 were performed during the GMA 12 planning process to assess current and predicted future impact of production from each of the aquifers.

During the DFC planning process, it became increasingly clear that a need for an improvement to the groundwater availability model was warranted. 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. Assessment of the past five 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 speaks to the need for a more accurate prediction tool.

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 Board of the TWDB Board and began in 2017.

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 late 2018. Final payment by BVGCD under contractual obligation was made in November, 2017.

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 2017, 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 2017 based on the

DFCs. The 2017 estimates of MAG within the BVGCD are given in Table 1. The Board declared the Alluvium relevant for the 2017 DFC planning process.

Table 1. Estimates of Groundwater Availability

| Aquifer | Modeled Available Groundwater, ac-ft/yr |
|------------------------------|--|
| Carrizo | 5,494 |
| Queen City | 1,200 |
| Simsboro | 96,198 |
| Calvert Bluff | 1,757 |
| Hooper | 2,000 |
| Sparta | 9,019 |
| Yegua-Jackson | 6,854 |
| Brazos River Alluvium | 137,351 |

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

| Aquifer | 2013 | 2014 | 2015 | 2016 | 2017 |
|----------------------|------------------|------------------|------------------|------------------|------------------|
| Carrizo | 806.43 | 852.28 | 665.50 | 761.72 | 630.11 |
| Queen City | 64.40 | 496.57 | 189.78 | 99.62 | 237.46 |
| Simsboro | 64,106.92 | 62,946.34 | 56,638.46 | 54,237.29 | 53,325.82 |
| Calvert Bluff | 81.77 | 183.50 | 160.07 | 132.32 | 271.98 |
| Hooper | 794.24 | 1,065.07 | 1,084.25 | 909.16 | 756.18 |
| Sparta | 3,402.06 | 5,358.33 | 4,122.06 | 4,152.91 | 4,241.37 |
| Yegua-Jackson | 1,438.37 | 2,533.23 | 1,664.27 | 1,565.41 | 1,509.54 |

Water-Level Monitoring Data for 2009-2017

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 historical 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 historical 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 historical data were evaluated and incorporated into the program. 149 wells were measured quarterly during 2016.

Several improvements to the well measurement network were made beginning mid-2016 and throughout 2017. The improvements included:

- Removal of wells with little or no historical measurements
- Removal of wells that were difficult to obtain consistently accurate measurements
- Addition of new wells with areal distribution more properly suited to long-term measuring across the District and within aquifers.
- Reconciliation of the screened geologic zone for each of the wells being measured

By the end of 2017, measurement data was being gathered from 158 wells distributed throughout the 8 aquifers underlying the District.

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 2017.

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 2017, the District generated a gross total of \$606,030.50 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 2017 was \$595,882.03. The amount generated and actual water production for each permit type is listed below.

| <u>Type of Permit</u> | <u>Fees Generated</u> | <u>Water Used</u> |
|-------------------------------------|-----------------------|-------------------|
| Agricultural (metered) | \$1,593.23 | 12,745.85 ac ft. |
| Agricultural (non-metered) | \$11,403.82 | *91,229.63 ac ft. |
| Industrial | \$48,250.50 | 3,804.16 ac ft. |
| Municipal Water Supply | \$476,058.87 | 34,375.79 ac ft. |
| Rural Water Supply | \$67,420.63 | 4,868.38 ac ft. |
| Steam Electric | \$1,303.44 | 5,213.77 ac ft. |
| Water Transported | \$0.00 | 0.00 ac ft. |
| Total Fees Generated (2017) | \$606,030.50 | |
| Total Fees to Be Collected** | \$595,882.03 | |

*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 \$4,352.41 in rebates.

** - 7 Municipal Water Supply entities received at total of \$5,796.06 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 Correlative Rights committee met on February 22, 2017 to discuss the idea of validating existing well footprints by possible application of noncontiguous acreage. The committee met a second time to discuss questions and comments raised during the first meeting.**

During a Public Rules Hearing held June 8, 2017, the board approved a rule amendment providing exceptions to spacing requirements for new non-exempt wells from existing wells to allow the new well owner to produce their production based acreage.

On August 10, 2017, the Board discussed and approved rule amendments pertaining to:

- **Information required in a permit application**
- **Deadline dates for Desired Future Conditions adoption**
- **Production based acreage rule (authority to produce under the entire footprint created for the well rather than a majority of the acreage)**
- **Applicability of spacing requirements**

On November 9, 2017, the Board adopted wording requiring permit applicants to attest to the authority to produce groundwater from a well by completing an affidavit of legal authority to produce the production based acreage assigned to the well.

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 – 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 4th 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 4th grade classes, all 9 College Station ISD 4th grade classes. 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 2,600 were exposed to the water curriculum in 2017.

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 6,600 students were exposed to the 45-60 minute teaching session. This included presentations to 4th, 5th and 7th grade classes. District staff now conducts laboratory sessions addressing water quality to all 7th grade students in the entire District.

1,500 4th 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, 2017. 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 is a yearly activity for the District.

The District annually organizes and conducts a “Water Conservation Field Days” for all the 5th 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 years’ field day was held on October 24, 2017 with approximately 250 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 has an ongoing commitment to maintain funding for both the website and necessary maintenance to the equipment.

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 186,000 between March 15th and September 1st.

The District had a presence at both the BCS Home & Garden Show and Earth Day events to push the service to homeowners. The booth was manned February 10th-12th, 2017, and was the fifth year for the District to participate.

Several presentations were given to real estate firms addressing the need to inform potential home and landowners of the existence of the District and the need to register an existing well. The presentations included the following groups:

BCS Realtors Association | 95 attended | January 5, 2017

Century 21 Beal Realtor Associates | 10 attended | February 22, 2017

Keller Williams Realtor Group | 12 attended | August 17, 2017

Others presentations given during 2017 included:

Aggieland Rotary Club | 12 attended | February 16, 2017

Brazos County Master Gardeners | 45 attended | February 28, 2017

Extension Service Club | 20 attended | March 2, 2017

Texas Christmas Tree Growers Assoc. | 32 attended | April 1, 2017

The topic was generally about the purpose of the District and how the District accomplished its mission.

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 2017. The General Manager attended the April 5th and November 1st 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. District staff continues to search for and attempt to identify possible springs within the District boundaries. No new springs were identified during 2017.

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 2017. These included the most recent Palmer Drought Severity Index, Crop Moisture Index, U.S. Drought Monitor for Texas, and U.S. Seasonal Drought Outlook. There was no regular Board meeting held in December, 2017.

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 – 40 permit applications were received during 2017 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 2017 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 July 10, 2017. Following the annual review, the committee reported to the entire Board on September 14, 2017 there were no recommended amendments. This document is reviewed annually by the committee and a committee 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 - 40 permit applications were received during 2017. No water conservation plans were received as a result of permitting requirements. All applicants agreed to abide by the District Water Conservation Plan revised and adopted December 2, 2010.

- **Plans requiring Water Conservation Plans - 40**
- **Water Conservation Plans submitted – 0**
- **Water Conservation Plans reviewed – 0**
- **Applicants to abide by the District Water Conservation Plan – 40**

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 158 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 524 readings were taken during 2017. A report on well monitoring was given quarterly during the Board of Directors meeting. Below is a listing of monitored readings by aquifer.

| Aquifer | Readings | # Monitor Wells |
|------------------------------|-----------------|------------------------|
| | | |
| Hooper | 56 | 17 |
| Simsboro | 161 | 55 |
| Calvert Bluff | 65 | 17 |
| Carrizo | 27 | 8 |
| Queen City | 14 | 4 |
| Sparta | 79 | 25 |
| Yegua Jackson | 31 | 9 |
| Brazos River Alluvium | 91 | 23 |
| Total | 524 | 158 |

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 at the District Office June 27, 2017. A discussion was held about the District providing grant funding to research poor quality water being used by irrigators. The grant would be given to two entities; (1) Robertson County Soil & Water Conservation District, and (2) Brazos County Soil & Water Conservation District. NRCS staff would take up to 100 water samples from Brazos River Alluvium wells throughout the District and two soil samples from fields supplied by those wells. The objective is to determine if there are soil amendments available that would increase the infiltration rate of the soil supplied by poor quality containing elevated total dissolved solids, primarily sodium. \$8,200 was made available to the two districts for sampling that will begin in the spring of 2018.

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 communication on April 5, 2017 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.

The Grant Committee met on August 4, 2017 to discuss the format the committee recommends on moving forward with the grant funding program. The Board determined during 2016 that grant proposals would be brought directly to the full Board for consideration on an individual basis. The committee will vet any proposals before presentation to the full Board with a recommendation. The committee will continue to oversee and obtain updated information on ongoing grant projects. Periodic reports will be given to the full board on an as needed basis.

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 9, 2017 Board meeting. The City of Bryan is also a partner in the program providing a weather station and wireless rain gauge locations but chose not to receive any grant funds.

The Board added additional grant funds to the BVWaterSmart project to update the cellular connection from all current weather stations and wireless rain gauge locations. This is being done in order for data transfer to be

immediate, in real time, and efficient. The additional funding amounts to \$12,500 in a one-time action.

Grant contracts associated with water well plugging continued during 2017. There were 13 entities that signed grant contracts with the District to engage in the plugging of a 19 water wells. Each of these contracts was fulfilled during 2017 with a total expenditure of \$17,552.66.

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. No water samples were gathered by District staff for analysis during 2017.

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 District's 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 is included on the District website. 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 6,600 4th, 5th, and 7th 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 March 9, 2017 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 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 in 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.

The Board was given access, in book form, to all of the monitoring well data collected during 2017 on a well by well basis. The data was compiled in line

line graph form depicting the trend of the water level within the monitoring well during the entire time the water level has been measured. This will be done annually and soon will be part of the graphics displayed on the District website.

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 2017 detailed water production (updated each February) for 2009-2017. Total permitted water production is done monthly and is current the day of the board meeting.