

Item 6 – Agricultural Irrigation Use Estimates

David Stratta will present the 2017 agricultural irrigation estimated usage for adoption. These numbers are used by the Texas Water Development Board. One of the uses includes inclusion in the State Water Plan.

Attached is the estimated usage by county.

It is the recommendation of the General Manager to approve the presented estimated agricultural irrigation use numbers for both Brazos and Robertson counties and provide them to the Texas Water Development Board for their use.

Brazos County Annual Irrigation Water Use Calculation Chart

blue = entry fields

2017

| Crop | Acreage | Water Use % Categories | | | | | | | | | Total Inches Used | Total Acre-Feet |
|----------------------|---------|------------------------|---------|-------------|-------------|---------|-------------|-------------|---------|-------------|----------------------|--------------------|
| | | Low | | | Medium | | | High | | | | |
| | | Inches/Acre | % Acres | Inches Used | Inches/Acre | % Acres | Inches Used | Inches/Acre | % Acres | Inches Used | | |
| corn | 2,500 | 16 | 30% | 12,000 | 25.7 | 50% | 32,125 | 35.4 | 20% | 17,700 | 61,825 | 5,152 |
| cotton | 12,370 | 17 | 40% | 84,116 | 24.15 | 40% | 119,494 | 31.3 | 20% | 77,436 | 281,046 | 23,421 |
| milo | 1,420 | 12 | 50% | 8,520 | 20.65 | 50% | 14,662 | 29.3 | 0% | 0 | 23,182 | 1,932 |
| wheat, oats | 210 | 6 | 50% | 630 | 8.1 | 50% | 851 | 10.2 | 0% | 0 | 1,481 | 123 |
| soybeans | 640 | 13 | 25% | 2,080 | 23.8 | 50% | 7,616 | 34.6 | 25% | 5,536 | 15,232 | 1,269 |
| rice | 0 | 46 | 0% | 0 | 46 | 0% | 0 | 46 | 0% | 0 | 0 | 0 |
| pasture, forage, hay | 1,763 | 18 | 40% | 12,694 | 25.9 | 50% | 22,831 | 33.8 | 10% | 5,959 | 41,483 | 3,457 |
| vegetables/orchards | 479 | 14 | 0% | 0 | 14 | 100% | 6,706 | 28 | 0% | 0 | 6,706 | 559 |
| <i>Totals:</i> | 19,382 | | | 120,040 | | | 204,284 | | | 106,631 | 430,955 | 35,913 |

EXPLANATORY FOOTNOTES:

1. The District will obtain rainfall records from National Weather Service Weather Forecast Office.

| Year | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC |
|------|------|------|------|------|------|------|------|------|------|------|-----|------|
| 2017 | 3.64 | 3.66 | 1.63 | 5.51 | 2.89 | 5.83 | 7.14 | 22.1 | 0.71 | 2.05 | 1.4 | 4.26 |

2. The District will obtain crop moisture index information from the National Oceanic and Atmospheric Administration (NOAA).

3. These figures are based on a survey conducted by The Brazos Valley Groundwater Conservation District in response to the figures reported by the Texas Water Development Board whose figures were based solely on the Farm Service Administration figures and generalized estimates of water usage. These figures do not constitute the official records of the Brazos Valley Groundwater Conservation District nor records kept in ordinary course of business, but represents our best estimates based on local information.

Robertson County Annual Irrigation Water Use Calculation Chart

blue = entry fields

2017

| Crop | Acreage | Water Use % Categories | | | | | | | | | Total Inches Used | Total Acre-Feet |
|----------------------|---------|------------------------|---------|-------------|-------------|---------|-------------|-------------|---------|-------------|----------------------|--------------------|
| | | Low | | | Medium | | | High | | | | |
| | | Inches/Acre | % Acres | Inches Used | Inches/Acre | % Acres | Inches Used | Inches/Acre | % Acres | Inches Used | | |
| corn | 8,715 | 16 | 35% | 48,804 | 25.7 | 20% | 44,795 | 35.4 | 45% | 138,830 | 232,429 | 19,369 |
| cotton | 13,600 | 17 | 35% | 80,920 | 24.15 | 35% | 114,954 | 31.3 | 30% | 127,704 | 323,578 | 26,965 |
| milo | 1,870 | 12 | 40% | 8,976 | 20.65 | 55% | 21,239 | 29.3 | 5% | 2,740 | 32,954 | 2,746 |
| wheat, oats | 250 | 6 | 90% | 1,350 | 8.1 | 10% | 203 | 10.2 | 0% | 0 | 1,553 | 129 |
| soybeans | 5,833 | 13 | 20% | 15,166 | 23.8 | 25% | 34,706 | 34.6 | 55% | 111,002 | 160,874 | 13,406 |
| rice | 320 | 46 | 0% | 0 | 49.35 | 0% | 0 | 52.7 | 100% | 16,864 | 16,864 | 1,405 |
| pasture, forage, hay | 4,280 | 18 | 45% | 34,668 | 33.8 | 50% | 72,332 | 49.6 | 5% | 10,614 | 117,614 | 9,801 |
| vegetables/orchards | 420 | 14 | 0% | 0 | 28 | 100% | 11,760 | 44 | 0% | 0 | 11,760 | 980 |
| <i>Totals:</i> | 35,288 | | | 189,884 | | | 299,988 | | | 407,754 | 897,626 | 74,802 |

EXPLANATORY FOOTNOTES:

1. The District will obtain rainfall records from National Weather Service Weather Forecast Office.

| Year | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC |
|------|------|------|------|------|------|------|------|-------|------|------|-----|------|
| 2017 | 3.53 | 2.47 | 2.39 | 3.95 | 5.18 | 1.87 | 1.32 | 10.39 | 0.07 | 0.88 | 1.7 | 3.98 |

2. The District will obtain crop moisture index information from the National Oceanic and Atmospheric Administration (NOAA).

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