



# 2015 Water Usage Report

The South Platte NRD has completed its ninth year of allocations for the Lodgepole Creek Management Area and its seventh year of allocations for the District's tableland regions and the South Platte Valley subarea. This report details Industrial Water Usage and Municipal Water Usage.

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**5/10/2016**

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**South Platte Natural Resources District  
Water Usage Report**

**Lodgepole Creek Management Area**

Analysis Period: 2013 - 2015

Permitted 3-Year Allocation: 48" (for 2013 - 2015)

Average Remaining Allocation: 25.39"

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	11.33	9.12	8.49	28.94
High	45.56	38.29	28.89	
Median	10.75	8.75	7.41	
Total Acre-Feet Pumped	36,157.27	28,775.39	26,705.63	91,638.29
Total Acres-Inches Pumped	433,887.25	345,304.72	320,467.54	1,099,659.51
Total Acres-Inches Pumped ÷ By Total Acres	10.84	8.70	8.11	27.65
Total Number of Inactive Certified Irrigated Acres***	2,108.3	2,310.9	2,318.2	
Total Number of Active Certified Irrigated Acres	40,063.9	39,681.5	39,524.0	
Total Number of Certified Irrigated Acres	42,172.2	41,992.3	41,842.1	

**Range of Inches Used:**

Scale	2013	2014	2015	Scale	2013 - 2015
0 - 4	18%	22%	31%	0 - 12	21%
4.01 - 8	16%	22%	23%	12.01 - 24	19%
8.01 - 12	25%	34%	26%	24.01 - 36	37%
12.01 - 16	27%	16%	15%	36.01 - 48	19%
16.01 - 20	10%	4%	4%	48.01 - 60	4%
20+	4%	2%	1%	60+	1%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	12.6	10.8%	9.3	11.4%	8.2	12.0%
Beans	10.1	2.3%	9.5	6.4%	9.1	5.2%
Corn	13.3	49.4%	10.7	43.3%	11.0	40.4%
Fallow	0.0	0.9%	0.0	0.7%	0.0	0.8%
Hay	7.7	7.2%	6.9	4.7%	4.3	6.1%
Pasture	7.1	5.0%	6.7	5.8%	6.1	5.6%
Potatoes	10.6	0.2%	12.4	0.1%	9.4	0.1%
Small Grains	6.1	19.7%	4.2	17.3%	4.1	22.2%
Sugar Beets	13.5	3.8%	12.6	5.9%	12.6	4.7%
Sunflowers	4.6	0.4%	5.9	1.3%	4.3	2.5%
Unknown	0.0	0.3%	9.5	2.5%	0.0	0.0%
All Crops	10.8	100%	8.8	100%	8.1	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**Subarea: Pine Bluffs to Oliver Reservoir**

**Analysis Period: 2013 - 2015**

**Permitted 3-Year Allocation: 42" (for 2013 - 2015)**

**Average Remaining Allocation: 21.74"**

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	10.52	9.00	7.98	27.50
High	17.55	17.37	15.05	
Median	10.72	8.43	6.23	
Total Acre-Feet Pumped	3,316.03	2,907.87	2,631.89	8,855.78
Total Acres-Inches Pumped	39,792.34	34,894.43	31,582.64	106,269.40
Total Acres-Inches Pumped ÷ By Total Acres	10.26	9.00	8.14	27.40
Total Number of Inactive Certified Irrigated Acres***	0.0	0.0	0.0	
Total Number of Active Certified Irrigated Acres	3,878.4	3,878.4	3,878.4	
Total Number of Certified Irrigated Acres	3,878.4	3,878.4	3,878.4	

**Range of Inches Used:**

Scale	2013	2014	2015
0 - 4	16%	19%	29%
4.01 - 8	13%	26%	26%
8.01 - 12	39%	26%	29%
12.01 - 16	26%	26%	16%
16.01 - 20	6%	3%	0%
20+	0%	0%	0%

Scale	2013 - 2015
0 - 12	16%
12.01 - 24	19%
24.01 - 36	42%
36.01 - 48	23%
48.01 - 60	0%
60+	0%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	14.1	17.7%	11.5	22.0%	8.4	23.1%
Beans	12.1	3.6%	9.5	3.6%	12.2	8.0%
Corn	11.0	22.5%	9.1	22.5%	8.8	15.7%
Fallow	0.0	0.8%	0.0	0.0%	0.0	1.0%
Hay	9.9	9.4%	8.2	5.6%	4.8	3.1%
Other Crop	0.0	0.0%	0.0	0.0%	5.3	2.1%
Pasture	7.8	28.4%	8.3	28.8%	7.5	28.1%
Potatoes	10.6	1.7%	12.4	1.0%	9.4	1.1%
Small Grains	9.3	14.4%	4.1	8.9%	6.5	13.9%
Sugar Beets	13.1	1.6%	13.0	4.8%	14.5	2.3%
Sunflowers	0.0	0.0%	7.6	1.7%	9.6	1.7%
Unknown	0.0	0.0%	0.0	1.1%	0.0	0.0%
All Crops	10.3	100%	9.0	100%	8.1	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**Subarea: Oliver Reservoir to Buffalo Bend**

**Analysis Period: 2013 - 2015**

**Permitted 3-Year Allocation: 42" (for 2013 - 2015)**

**Average Remaining Allocation: 24.49"**

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	11.26	8.49	7.56	27.38
High	23.80	19.10	25.22	
Median	11.13	9.08	6.75	
Total Acre-Feet Pumped	13,681.77	10,364.55	9,715.77	34,263.41
Total Acres-Inches Pumped	164,181.22	124,374.60	116,589.30	411,160.96
Total Acres-Inches Pumped ÷ By Total Acres	11.55	8.39	7.93	27.78
Total Number of Inactive Certified Irrigated Acres***	709.9	608.2	608.2	
Total Number of Active Certified Irrigated Acres	14,734.1	14,819.2	14,704.8	
Total Number of Certified Irrigated Acres	15,444.0	15,427.4	15,313.0	

**Range of Inches Used:**

Scale	2013	2014	2015
0 - 4	17%	24%	36%
4.01 - 8	16%	18%	19%
8.01 - 12	24%	40%	28%
12.01 - 16	28%	15%	12%
16.01 - 20	12%	3%	3%
20+	3%	0%	1%

Scale	2013 - 2015
0 - 12	21%
12.01 - 24	18%
24.01 - 36	42%
36.01 - 48	15%
48.01 - 60	2%
60+	1%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	13.2	8.8%	8.0	10.9%	7.0	9.4%
Beans	9.3	3.5%	9.0	11.4%	7.5	9.3%
Corn	13.7	45.9%	10.5	35.4%	10.9	36.6%
Fallow	0.0	0.7%	0.0	0.3%	0.0	0.8%
Hay	7.3	4.3%	4.8	2.1%	2.3	5.0%
Other Crop	0.0	0.0%	0.0	0.0%	0.0	0.1%
Pasture	3.3	2.3%	1.5	4.0%	3.5	3.3%
Small Grains	6.6	24.0%	3.9	16.1%	3.9	19.6%
Sugar Beets	13.5	9.8%	12.9	13.0%	12.4	12.0%
Sunflowers	0.0	0.0%	6.0	0.9%	2.8	3.9%
Unknown	0.0	0.7%	11.0	5.9%	0.0	0.0%
All Crops	11.1	100%	8.8	100%	7.9	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**Subarea: Buffalo Bend to Sidney**

**Analysis Period: 2013 - 2015**

**Permitted 3-Year Allocation: 42" (for 2013 - 2015)**

**Average Remaining Allocation: 29.33"**

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	8.86	7.04	7.05	22.95
High	38.91	14.08	17.48	
Median	7.65	6.43	6.11	
Total Acre-Feet Pumped	6,683.35	5,088.57	4,911.94	16,683.86
Total Acres-Inches Pumped	80,200.24	61,062.83	58,943.26	200,206.33
Total Acres-Inches Pumped ÷By Total Acres	8.48	6.63	6.42	21.53
Total Number of Inactive Certified Irrigated Acres***	656.5	810.7	810.7	
Total Number of Active Certified Irrigated Acres	9,460.9	9,213.8	9,187.4	
Total Number of Certified Irrigated Acres	10,117.4	10,024.5	9,998.1	

**Range of Inches Used:**

Scale	2013	2014	2015	Scale	2013 - 2015
0 - 4	21%	27%	31%	0 - 12	31%
4.01 - 8	31%	37%	40%	12.01 - 24	30%
8.01 - 12	24%	30%	12%	24.01 - 36	27%
12.01 - 16	16%	6%	15%	36.01 - 48	11%
16.01 - 20	6%	0%	1%	48.01 - 60	0%
20+	1%	0%	0%	60+	0%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	11.6	9.9%	9.6	8.2%	10.3	10.2%
Beans	0.0	0.0%	8.8	3.1%	10.4	1.4%
Corn	11.7	46.2%	8.6	40.1%	9.1	38.4%
Fallow	0.0	1.3%	0.0	0.9%	0.0	0.6%
Hay	6.1	8.6%	6.5	5.0%	2.6	4.1%
Other	0.0	0.0%	0.0	1.4%	0.0	0.7%
Pasture	8.4	2.9%	8.1	2.9%	5.4	4.9%
Small Grains	4.1	29.3%	3.7	31.9%	3.4	38.0%
Sugar Beets	0.0	0.0%	9.7	2.7%	0.0	0.0%
Sunflowers	4.6	1.8%	3.4	2.8%	3.7	1.8%
Unknown	0.0	0.0%	0.0	0.9%	0.0	0.0%
All Crops	8.6	100%	6.6	100%	6.4	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**Subarea: Sidney to Colorado**

**Analysis Period: 2013 - 2015**

**Permitted 3-Year Allocation: 48" (for 2013 - 2015)**

**Average Remaining Allocation: 25.06"**

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	12.68	10.78	10.21	33.67
High	45.56	38.29	28.89	
Median	11.89	10.11	9.18	
Total Acre-Feet Pumped	12,395.11	10,414.41	9,446.03	32,255.55
Total Acres-Inches Pumped	148,741.31	124,972.86	113,352.34	387,066.51
Total Acres-Inches Pumped ÷ By Total Acres	12.37	10.62	9.74	32.73
Total Number of Inactive Certified Irrigated Acres***	707.6	892.0	899.3	
Total Number of Active Certified Irrigated Acres	12,024.6	11,770.0	11,637.8	
Total Number of Certified Irrigated Acres	12,732.2	12,662.0	12,537.0	

**Range of Inches Used:**

Scale	2013	2014	2015
0 - 4	16%	17%	24%
4.01 - 8	9%	18%	16%
8.01 - 12	24%	31%	29%
12.01 - 16	31%	22%	19%
16.01 - 20	12%	8%	8%
20+	8%	5%	3%

Scale	2013 - 2015
0 - 12	16%
12.01 - 24	12%
24.01 - 36	37%
36.01 - 48	26%
48.01 - 60	8%
60+	1%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	11.8	11.8%	9.2	11.0%	7.8	13.2%
Beans	10.5	2.2%	12.0	3.6%	13.3	2.2%
Corn	14.3	65.2%	12.3	62.8%	12.4	55.0%
Fallow	0.0	1.0%	0.0	1.4%	0.0	0.4%
Hay	9.1	8.7%	7.4	7.6%	6.0	10.2%
Pasture	7.7	2.4%	9.6	2.6%	7.0	1.5%
Small Grains	7.7	8.7%	5.9	10.3%	4.8	16.0%
Sunflowers	0.0	0.0%	14.0	0.6%	7.8	1.4%
Unknown	0.0	0.0%	0.0	0.1%	0.0	0.0%
All Crops	12.6	100%	10.7	100%	9.7	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**South Platte Valley**

Analysis Period: 2013 - 2015

Permitted 3-Year Allocation: 54" (for 2013 - 2015)

Average Remaining Allocation: 25.1"

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	15.41	11.06	12.30	38.77
High	62.64	44.33	43.76	
Median	14.69	10.51	12.21	
Total Acre-Feet Pumped	12,035.84	8,367.45	9,844.56	30,247.85
Total Acres-Inches Pumped	144,422.35	100,409.43	118,134.75	362,966.53
Total Acres-Inches Pumped ÷ By Total Acres	15.04	10.48	12.23	37.75
Total Number of Inactive Certified Irrigated Acres***	345.0	368.5	292.9	
Total Number of Active Certified Irrigated Acres	9,604.7	9,581.3	9,656.8	
Total Number of Certified Irrigated Acres	9,949.7	9,949.8	9,949.7	

**Range of Inches Used:**

Scale	2013	2014	2015
0 - 4	7%	9%	20%
4.01 - 8	5%	14%	9%
8.01 - 12	15%	43%	16%
12.01 - 16	34%	22%	35%
16.01 - 20	21%	5%	9%
20+	18%	7%	11%

Scale	2013 - 2015
0 - 12	10%
12.01 - 24	6%
24.01 - 36	32%
36.01 - 48	34%
48.01 - 60	9%
60+	8%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	17.6	5.7%	14.4	4.2%	13.8	4.4%
Beans	15.5	5.3%	6.9	8.6%	11.0	7.5%
Corn	14.8	73.4%	10.9	79.5%	13.3	74.5%
Fallow	0.0	0.6%	0.0	0.0%	0.0	1.6%
Hay	11.9	3.6%	7.7	1.3%	5.6	3.5%
Other	7.2	0.5%	0.0	0.0%	0.0	0.0%
Pasture	0.0	0.0%	9.5	1.6%	0.0	0.0%
Small Grains	9.0	3.3%	3.3	1.7%	3.6	4.6%
Sugar Beets	20.0	3.3%	10.1	3.1%	13.6	3.9%
Unknown	20.8	4.3%	0.0	0.0%	0.0	0.0%
All Crops	15.0	100%	10.5	100%	12.2	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.



## South Platte Natural Resources District Water Usage Report

### SPNRD Tablelands

Analysis Period: 2013 - 2015

Permitted 3-Year Allocation: 42" (for 2013 - 2015)

Average Remaining Allocation: 24.73"

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	11.25	9.18	6.98	27.41
High	25.84	22.13	17.63	
Median	11.35	9.27	6.99	
Total Acre-Feet Pumped	72,504.23	58,480.60	42,147.63	173,132.46
Total Acres-Inches Pumped	870,050.74	701,767.26	505,771.61	2,077,589.61
Total Acres-Inches Pumped ?By Total Acres	11.02	8.90	6.42	26.34
Total Number of Inactive Certified Irrigated Acres***	1,867.2	1,974.2	1,974.2	
Total Number of Active Certified Irrigated Acres	78,948.2	78,841.0	78,841.0	
Total Number of Certified Irrigated Acres	80,815.3	80,815.1	80,815.2	

### Range of Inches Used:

Scale	2013	2014	2015	Scale	2013 - 2015
0 - 4	5%	9%	29%	0 - 12	9%
4.01 - 8	14%	29%	32%	12.01 - 24	29%
8.01 - 12	38%	42%	30%	24.01 - 36	46%
12.01 - 16	31%	17%	7%	36.01 - 48	15%
16.01 - 20	11%	3%	1%	48.01 - 60	1%
20+	1%	0%	0%	60+	0%

### Crop Water Usage\*\*:

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	12.7	7.3%	11.2	7.2%	6.7	7.6%
Beans	9.3	7.5%	8.1	13.8%	6.3	11.3%
Corn	12.4	47.3%	10.1	45.0%	9.6	31.9%
Fallow	0.0	0.1%	0.0	0.3%	0.0	0.6%
Hay	9.8	4.3%	7.4	3.9%	4.8	3.4%
Other	5.0	0.2%	6.0	1.1%	6.1	0.3%
Pasture	8.4	3.4%	6.8	3.4%	4.8	3.4%
Small Grains	8.7	23.6%	6.0	19.6%	3.4	33.5%
Sugar Beets	12.5	4.1%	11.0	4.8%	10.8	4.4%
Sunflowers	8.4	2.2%	6.0	0.4%	5.2	3.7%
Unknown	0.0	0.0%	0.0	0.5%	0.0	0.0%
All Crops	11.0	100%	8.8	100%	6.4	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**Kimball County Tablelands**

Analysis Period: 2013 - 2015

Permitted 3-Year Allocation: 42" (for 2013 - 2015)

Average Remaining Allocation: 24.95"

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	11.35	8.81	6.79	26.95
High	25.84	18.65	17.63	
Median	11.18	8.94	6.96	
Total Acre-Feet Pumped	23,363.0	17,991.49	13,053.21	54,407.70
Total Acres-Inches Pumped	280,356.06	215,897.83	156,638.55	652,892.44
Total Acres-Inches Pumped ÷ By Total Acres	10.96	8.46	6.14	25.56
Total Number of Inactive Certified Irrigated Acres***	415.9	487.5	487.5	
Total Number of Active Certified Irrigated Acres	25,587.2	25,515.4	25,515.4	
Total Number of Certified Irrigated Acres	26,003.1	26,002.9	26,002.9	

**Range of Inches Used:**

Scale	2013	2014	2015
0 - 4	7%	16%	28%
4.01 - 8	11%	27%	38%
8.01 - 12	39%	41%	29%
12.01 - 16	30%	15%	3%
16.01 - 20	11%	2%	2%
20+	2%	0%	0%

Scale	2013 - 2015
0 - 12	11%
12.01 - 24	29%
24.01 - 36	47%
36.01 - 48	13%
48.01 - 60	1%
60+	0%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	12.9	13.1%	10.2	13.6%	6.1	14.3%
Beans	9.8	2.7%	8.7	7.5%	5.9	6.7%
Corn	12.0	43.9%	9.0	39.3%	8.7	27.4%
Fallow	0.0	0.0%	0.0	0.5%	0.0	0.9%
Hay	7.6	3.8%	7.8	4.0%	7.3	4.2%
Other	5.0	0.5%	5.3	2.1%	0.0	0.0%
Other Crop	0.0	0.0%	0.0	0.0%	6.1	1.0%
Pasture	7.9	8.5%	5.9	7.7%	3.8	8.5%
Small Grains	9.4	20.5%	5.6	17.1%	7.5	27.4%
Sugar Beets	13.1	4.8%	10.8	6.7%	11.0	6.0%
Sunflowers	8.0	2.2%	6.5	1.1%	4.5	3.6%
All Crops	10.9	100%	8.2	100%	6.1	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**South Platte Natural Resources District  
Water Usage Report**

**Cheyenne County Tablelands**

Analysis Period: 2013 - 2015

Permitted 3-Year Allocation: 42" (for 2013 - 2015)

Average Remaining Allocation: 25.6"

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	10.93	9.08	6.51	26.52
High	21.41	19.83	16.63	
Median	11.25	9.46	6.23	
Total Acre-Feet Pumped	39,794.50	32,644.13	21,975.80	94,414.43
Total Acres-Inches Pumped	477,534.03	391,729.52	263,709.58	1,123,973.13
Total Acres-Inches Pumped ÷By Total Acres	10.88	8.92	6.01	25.81
Total Number of Inactive Certified Irrigated Acres***	993.0	993.0	993.0	
Total Number of Active Certified Irrigated Acres	43,896.3	43,896.3	43,896.4	
Total Number of Certified Irrigated Acres	44,889.3	44,889.3	44,889.4	

**Range of Inches Used:**

Scale	2013	2014	2015	Scale	2013 - 2015
0 - 4	5%	7%	33%	0 - 12	9%
4.01 - 8	16%	31%	31%	12.01 - 24	33%
8.01 - 12	39%	45%	29%	24.01 - 36	46%
12.01 - 16	30%	16%	6%	36.01 - 48	13%
16.01 - 20	10%	1%	0%	48.01 - 60	0%
20+	0%	0%	0%	60+	0%

**Crop Water Usage\*\*:**

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	11.5	3.7%	11.3	3.2%	6.1	3.5%
Beans	9.3	10.5%	8.0	19.9%	6.3	16.2%
Corn	12.7	46.9%	10.6	45.6%	9.4	29.1%
Fallow	0.0	0.1%	0.0	0.3%	0.0	0.5%
Hay	10.6	5.2%	7.1	4.5%	3.9	2.3%
Other	0.0	0.0%	7.2	0.7%	0.0	0.0%
Pasture	12.9	0.6%	8.7	0.9%	9.0	0.6%
Small Grains	8.1	27.2%	6.2	21.0%	3.2	39.9%
Sugar Beets	11.2	3.4%	11.4	3.4%	10.6	4.0%
Sunflowers	9.0	2.3%	3.3	0.1%	5.0	4.0%
Unknown	0.0	0.0%	0.0	0.4%	0.0	0.0%
All Crops	10.8	100%	8.9	100%	6.0	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

## South Platte Natural Resources District Water Usage Report

### Deuel County Tablelands

Analysis Period: 2013 - 2015

Permitted 3-Year Allocation: 42" (for 2013 - 2015)

Average Remaining Allocation: 19.21"

	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	12.35	10.35	9.61	32.31
High	19.99	22.13	17.37	
Median	12.67	10.18	10.52	
Total Acre-Feet Pumped	9,346.72	7,845.01	7,118.62	24,310.35
Total Acres-Inches Pumped	112,160.64	94,140.13	85,423.48	291,724.25
Total Acres-Inches Pumped ÷ By Total Acres	11.85	9.98	9.06	30.89
Total Number of Inactive Certified Irrigated Acres***	458.3	493.7	493.7	
Total Number of Active Certified Irrigated Acres	9,464.6	9,429.2	9,429.2	
Total Number of Certified Irrigated Acres	9,922.9	9,922.9	9,922.9	

### Range of Inches Used:

Scale	2013	2014	2015	Scale	2013 - 2015
0 - 4	0%	2%	11%	0 - 12	9%
4.01 - 8	14%	32%	16%	12.01 - 24	11%
8.01 - 12	30%	27%	41%	24.01 - 36	42%
12.01 - 16	41%	25%	30%	36.01 - 48	33%
16.01 - 20	16%	11%	2%	48.01 - 60	4%
20+	0%	2%	0%	60+	0%

### Crop Water Usage\*\*:

Crop	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	13.8	8.9%	16.0	8.1%	10.3	8.2%
Beans	9.2	6.4%	8.9	2.7%	10.6	1.0%
Corn	12.2	58.3%	10.7	57.7%	11.3	57.1%
Hay	11.1	1.4%	7.6	0.5%	1.6	6.2%
Pasture	8.2	3.1%	10.1	3.5%	8.4	3.2%
Small Grains	10.7	15.2%	6.4	19.6%	4.5	20.4%
Sugar Beets	14.6	5.4%	10.5	6.1%	11.1	1.3%
Sunflowers	4.8	1.3%	0.0	0.0%	9.1	2.5%
Unknown	0.0	0.0%	0.0	1.9%	0.0	0.0%
All Crops	11.9	100%	10.0	100%	9.1	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

## South Platte Natural Resources District Water Usage Report

### Districtwide Water Usage Analysis Period: 2012 - 2015

	2012	2013	2014	2015	Total
Weighted Avg. Inches Pumped*	17.48	11.72	9.37	8.07	46.64
High	62.49	62.64	44.33	43.76	
Median	17.33	11.42	9.21	7.47	
Total Acre-Feet Pumped	178,373.80	120,615.68	95,623.45	78,420.20	473,033.13
Total Acres-Inches Pumped	2,140,485.65	1,447,388.2	1,147,481.41	941,042.37	5,676,397.63
Total Acres-Inches Pumped ÷ By Total Acres	16.66	11.26	8.96	7.36	44.24
Total Number of Inactive Certified Irrigated Acres***	4,414.0	4320.4	4,653.5	4,585.2	
Total Number of Active Certified Irrigated Acres	128,478.5	128,617.2	128,103.7	127,906.3	
Total Number of Certified Irrigated Acres	132,892.4	132,937.6	132,757.2	132,491.5	

#### Range of Inches Used:

Scale	2012	2013	2014	2015
0 - 4	8%	11%	15%	29%
4.01 - 8	5%	14%	25%	26%
8.01 - 12	11%	30%	38%	27%
12.01 - 16	18%	29%	17%	13%
16.01 - 20	25%	11%	3%	3%
20+	33%	4%	1%	1%

#### Crop Water Usage\*\*:

Crop	2012 Avg. In.	2012 Percent of Acres	2013 Avg. In.	2013 Percent of Acres	2014 Avg. In.	2014 Percent of Acres	2015 Avg. In.	2015 Percent of Acres
Alfalfa	20.8	8.3%	12.8	8.5%	10.8	8.2%	7.6	8.7%
Beans	15.0	9.1%	9.8	5.7%	8.3	11.2%	7.1	9.1%
Corn	18.3	52.9%	13.0	49.7%	10.2	47.4%	10.6	37.7%
Fallow	0.0	0.5%	0.0	0.5%	0.0	0.5%	0.0	0.7%
Hay	15.0	5.2%	9.1	5.1%	7.3	4.0%	4.6	4.2%
Other	1.8	0.4%	5.6	0.1%	5.2	0.8%	5.7	0.3%
Pasture	11.1	4.4%	7.7	3.7%	7.6	4.0%	5.4	3.8%
Potatoes	23.9	0.1%	10.6	0.1%	12.4	0.0%	9.4	0.0%
Small Grains	10.4	12.6%	7.9	20.9%	5.4	17.5%	3.5	27.9%
Sugar Beets	21.4	5.1%	13.2	3.9%	11.5	5.1%	11.6	4.4%
Sunflowers	10.9	0.9%	8.0	1.5%	6.0	0.7%	5.0	3.0%
Unknown	1.7	0.7%	16.5	0.4%	12.8	0.6%	0.0	0.0%
All Crops	16.6	100%	11.2	100%	9.0	100%	7.4	100%

\* Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

\*\* Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

\*\*\*Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

**2015 SPNRD Active Industries with Baselines**

<b>Well Reg. #</b>	<b>Legal</b>	<b>Use</b>	<b>Baseline Gallons</b>	<b>Baseline Year</b>	<b>2015 Gallons*</b>
G-157945 G-157946 G-031351	Sec. 5 T13N R50W Sec. 5 T13N R50W Sec. 5 T13N R50W	Livestock	299,315,624	2005-2006	137,739,449
G-091299	Sec. 30 T16N R55W	Sand & gravel mine	22,154,542	2001-2002	0
G-013034	Sec. 19 T15N R55W	Oil fields	88,605	2004-2005	0
G-051806 G-058832**	Sec. 32 T14N R55W Sec. 6 T13N R55W	Oil fields, roads, wind turbines	2,203,750	2003-2004	3,565,358
G-117269	Sec. 5 T14N R52W	Water well drilling	655,763	2002-2003	168,357
G-059572 G-119599	Sec. 15 T13N R51W Sec. 11 T14N R51W	Oil fields	2,333,334	2005-2006	12,700
G-041367***	Sec. 23 T15N R56W	Sand & gravel mine	5,650,134	2005-2006	4,907,594
G-058331 G-064838	Sec. 34 T15N R55W	Golf Course	189,569,845	2001-2002	63,937,520
A-003167A	Sec. 29 T15N R55W	Oil fields	6,348,605	2013	1,112,300
G-059901	Sec. 3 T13N R49W	Sand & gravel mine	41,925,776	2014	2,368,668
G-116176****	Sec. 32 T14N R49W	Ponds & landscape/turf	17,600,000	2014	887,100
G-131190 G-083186	Sec. 14 T13N R45W	Livestock	26,952,200	2013-2014	22,599,900
G-123698	Sec. 4 T12N R45W	Livestock	3,940,100	2012-2013	2,608,400
G-077801	Sec. 29 T14N R55W	Hazardous Waste Incinerator	35,227,000	2009-2010	36,691,000
G-003169	Sec. 22 T13N R45W	Coop	884,822	2012-2013	484,650
G-002327	Sec. 2 T12N R42W	Aerial Spraying	581,102	2010-2011	323,900
G-164175	Sec. 18 T12N R43W	Golf Course	9,437,798	2014	5,783,048

\* 2015 Gallons are calculated from the industrial water year of August 1, 2014 through July 31, 2015.

\*\* These wells are in the fully appropriated area of the District and are over their five year baseline; the SPNRD has worked through the Platte Basin Coalition to secure an offset by retiring irrigated acres.

\*\*\* Well G-041367 received a variance to establish a partial baseline because pumping did not occur during all five baseline years. If the baseline amount of 5,650,134 gallons is exceeded, all offsets will be automatically deducted from certified irrigated tract #15N56W230005. See 2/5 variance request in the 2010 report.

\*\*\*\* The baseline for this well increased this year with approved transfer TR-IND-14-Cabela's-SO-2015.

### SPNRD Active Industrial Variances 2015

<b>Well Reg. #</b>	<b>Legal</b>	<b>Use</b>	<b>Baseline Gallons</b>	<b>2015 Gallons</b>
G-054015	Sec. 6 T15N R57W	Oil Fields	TBD	3,584
G-101853	Sec. 23 T16N R50W	Coop	TBD	968,600

**SPNRD Non-Baseline Industrial Certifications 2015**

<b>Well Reg. #</b>	<b>Legal</b>	<b>Industrial Use</b>	<b>Offset Provided By</b>
G-021823	Sec. 12 T16N R57W	Oil Fields	To Be Determined (TBD)
G-022051	Sec. 24 T13N R56W	Oil Fields	TBD
G-014546	Sec. 34 T14N R53W	Oil Fields	TBD
G-022281	Sec. 11 T14N R53W	Oil Fields	TBD
G-134511	Sec. 22 T17N R52W	Oil Fields	TBD
A-002770	Sec. 28 T15N R54W	Oil Fields	TBD
G-022347	Sec. 23 T13N R57W	Oil Fields	TBD
G-022048	Sec. 34 T17N R51W	Oil Fields	TBD
G-023351	Sec. 27 T14N R50W	Oil Fields	TBD
A-004712	Sec. 11 T14N R59W	Oil Fields	irrigation allocation on tract 14N59W110001
G-022050 G-022049	Sec. 19 T14N R55W Sec. 19 T14N R55W	Oil Fields	TBD
G-074242	Sec. 1 T12N R44W	Sand & Gravel Mine	irrigation allocation on tract 12N43W130003
A-004408	Sec. 28 T15N R55W	Sand & Gravel Mine	irrigation allocation on tract 15N55W280004
G-054269	Sec. 12 T13N R56W	TBD	irrigation allocation on tract 13N56W120001
G-019421 G-019973 G-019423	Sec. 21 T14N R55W Sec. 21 T14N R55W Sec. 21 T14N R55 W	Oil Fields	TBD
G-154988 G-154989 G-154990	Sec. 6 T12N R43W Sec. 6 T12N R43W Sec. 6 T12N R43W	Sand & Gravel Mine	irrigation allocation on tract 12N43W210001
G-021178	Sec. 23 T17N R52W	Oil Fields	TBD
G-039899	Sec. 5 T15N R52W	Oil Fields	TBD
G-021179 G-021621	Sec. 23 T17N R52W Sec. 23 T17N R52W	Oil Fields	TBD
G-146042	Sec. 13 T15N R56W	Sand & Gravel Mine	irrigation allocation on tract 15N56W230005
G-030434 G-026066	Sec. 2 T12N R55W Sec. 2 T12N R55W	Oil Fields	TBD
G-041796	Sec. 13 T14N R51W	Sand & Gravel Mine	Irrigation allocation on tract 14N51W130001
G-014002	Sec. 7 T13N R47W	Sand & Gravel Mine	Irrigation allocation on tracts 13N46W080001 and 13N47W070001
G-003090	Sec. 5 T14N R52W	Interstate Construction	Irrigation allocation on tract 14N52W050002
G-094357B	Sec. 15 T12N R49W	Wind turbines & Roads	Irrigation allocation on tract 12N49W150001



### SPNRD Municipal Baselines and 2015 Usage

<b>Municipality</b>	<b>DNR Transfer Permit Gallons</b>	<b>Baseline Gallons</b>	<b>Baseline Year</b>	<b>Baseline Per Capita Use* gallons/ person/ day</b>	<b>2015 Gallons**</b>	<b>2015 Per Capita Use*** gallons/ person/day</b>
Big Springs	164,574,899	154,986,748	2002-2003	1,016	49,350,000	338
Bushnell	N/A	13,092,375	2001-2002	221	8,130,945	180
Chappell	N/A	116,968,411	2001-2002	326	95,136,400	281
Dalton	N/A	70,382,300	2001-2002	580	21,036,200	183
Dix	N/A	72,023,100	2001-2002	739	20,057,700	216
Gurley	N/A	46,085,050	2001-2002	554	21,944,827	281
Kimball	N/A	243,050,000	2001-2002	260	102,952,000	113
Lodgepole	N/A	53,443,494,	2001-2002	421	27,660,000	238
Potter	N/A	135,421,817	2001-2002	951	60,143,263	489
Sidney	1,300,000,000	633,042,003	2001-2002	276	361,360,000	147

\* Based on 2000 census population numbers

\*\* Based on August 1, 2014 through July 31, 2015 water year

\*\*\* Based on the 2010 census population numbers

### SPNRD Water Acquisitions and Water Banking Activities Through 2015

Landowner	Decertified Acres	Stream Depletion (%)	Acre Feet Accrued	Township	Range	Section	Date Retired	County	Subarea	Appropriation
Terrell Wiekhorst	43.1	18	4.6	14	52	5	9/6/2007	Cheyenne	ORBB	OA
Cliff Farms Inc.	50	32	12.2	14	52	3	9/17/2007	Cheyenne	ORBB	OA
Robert & Connie Runge	75.2	7	2.7	13	51	10	9/27/2007	Cheyenne	SIDCO	OA
Marleen E. Evans Et al	237.8	57	118.9	13	50	4	10/22/2007	Cheyenne	SIDCO	OA
Marleen E. Evans Et al	23.8	71	26.7	14	50	33	10/22/2007	Cheyenne	BBSID	OA
Fornstrom Farms LLC	109.9	23	14.1	14	59	12	11/1/2007	Kimball	PBOR	OA
Dale Dedic	29.8	25	6.2	14	52	4	12/4/2007	Cheyenne	ORBB	OA
Elizabeth Burbach	18.3	25	3.8	15	55	20	12/5/2007	Kimball	ORBB	OA
Peetz Land & Cattle Co	22.9	31	4.7	14	49	35	3/14/2008	Cheyenne	SIDCO	OA
B5 Farms LLC	10.1	78	4.9	12	45	13	4/9/2008	Deuel	SIDCO	OA
Paul & Frances Fornander	13.3	72	14.5	13	45	22	7/1/2008	Deuel	SIDCO	OA
Harvey Jung	8.7	7	1	14	53	2	7/10/2008	Cheyenne	ORBB	OA
Robert Kurz	271.5	57	88.3	13	50	4	10/23/2008	Cheyenne	SIDCO	OA
Venture Development Group Inc.	66	66	32.4*	14	49	32	7/14/2009	Cheyenne	BBSID	OA
Alan Adamson	62.6	70	63	15	57	31	9/22/2009	Kimball	PBOR	OA
Sharon A, James C. & Donna Johnson	5.6	10	0.44	15	53	34	7/1/2010	Kimball	ORBB	OA
Raymond Kuehn	83.2	73.5	49.2	14	51	12	7/1/2010	Cheyenne	BBSID	OA
Raymond Kuehn	42.3	68	23.1	14	51	13	7/1/2010	Cheyenne	BBSID	OA
Scott & Susan Lockwood	43.9	92.5	32	15	57	36	9/1/2010	Kimball	PBOR	OA
Don & Janelle Frerichs	59.6	75	30.8	14	48	27	9/22/2011	Cheyenne	SIDCO	Over
Barton Terman	99	10	14.5	14	52	34	12/28/2011	Cheyenne	BBSID	Over
The Ranch at Sidney LLC	35.1	74	28.5	14	49	33	4/8/2014	Cheyenne	SIDCO	OA
City of Chappell	37.5	45.7	36.6	13	45	23	1/1/2015	Deuel	SIDCO	OA

City of Sidney	87.4	53	92.6	14	49	33	5/12/2015	Cheyenne	SIDCO	OA
Castronics	114.4	28.4	8.7	15	55	27	12/9/2015	Kimball	ORBB	OA

Total Acre Feet Accrued = 714

Total Number of Acres Decertified = 1,651

Average Stream Depletion = 47%

Average \$/AF Accrued (Federal dollars plus SPNRD dollars): \$2,578

Average \$/Acre Retired (Federal dollars plus SPNRD dollars): \$511

## 2015 Precipitation Summary (March 1 through October 31)

### Monthly Averages for 2015

	March	April	May	June	July	August	September	October
Kimball	.19	4.26	7.66	2.36	2.63	2.84	.40	1.98
Cheyenne	.16	4.18	8.23	2.85	2.59	1.58	.39	1.54
Deuel	.24	2.96	5.53	2.59	1.95	1.79	1.19	1.28

### Comparison of 2011, 2012, 2013, and 2014 to Historical Averages

County	2012 Precip Ave.	2013 Precip Ave.	2014 Precip Ave.	2015 Precip Ave.	Historical Ave.
Kimball	6.81	13.98	19.36	25.09	16.22
Cheyenne	7.81	18.83	18.09	24.71	17.68
Deuel	6.23	14.55	18.18	18.18	17.79

# Allocation Subareas and Allocations for 2013 through 2015



Explanation	
	Pine Bluffs to Oliver Reservoir; 14"/year or 42" for 2013 through 2015
	Oliver Reservoir to Buffalo Bend; 14"/year or 42" for 2013 through 2015
	Buffalo Bend to Sidney; 14"/year or 42" for 2013 through 2015
	Sidney to Colorado; 16"/year or 48" for 2013 through 2015
	South Platte Valley; 18"/year or 56" for 2013 through 2015
	Tablelands; 14"/year or 42" for 2013 through 2015

