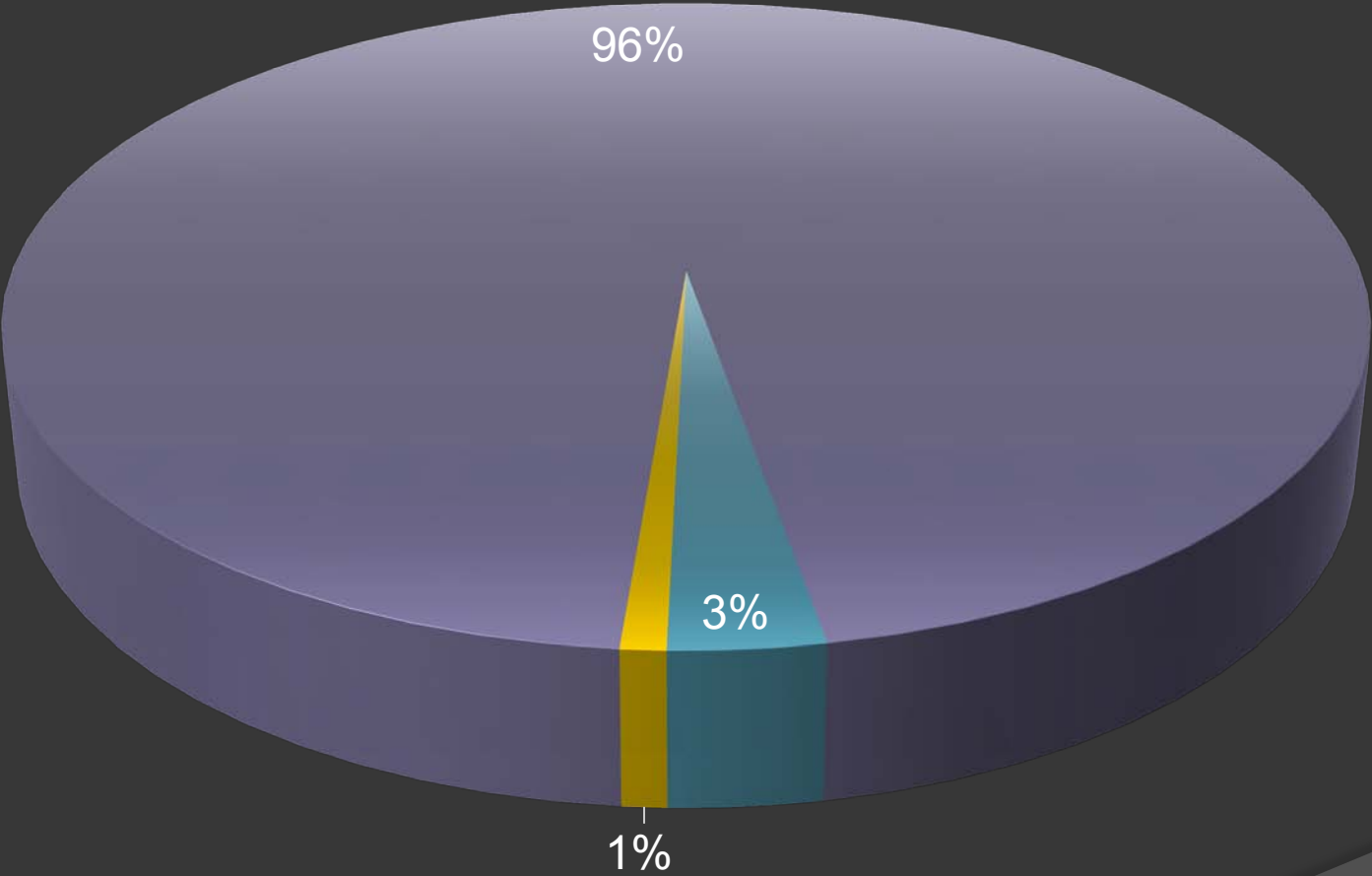


# 2010 WATER USAGE REPORT

# Water Usage By Sector



■ Municipal ■ Industrial ■ Agricultural

# Industrial Water Usage

- 1% of District Water Usage
- 39 Industries Tracked
- 16 Active Industries
- 8 Dual Usage Certifications
- Monitored Monthly
- Board approved Baseline of 369 million gallons annually.
  - 6 Active Industries have variance for baseline extension
- 300 million gallons consumed in 2010

# Municipal Water Usage

- 77% of District's population served by municipal water systems
- 3% of District water usage
- Board approved baseline for all 10 municipalities set at 1.45 billion gallons annually (45 pivots)
- Big Springs and Sidney have transfer permits
- Waste Treatment
  - 6 Full Retention
  - 4 Return water to Lodgepole Creek
- Current municipal usage is much lower than Baseline usage
  - Most towns are carryforwarding the equivalent of more than 1 years baseline.

# Agricultural Water Usage

- 96% of the District's Water Usage
- 133,000 Certified Irrigated Acres
- 32 billion gallons pumped in 2010
- 500 different landowners
- Average Usage for 2010 was 9.99"/acre
  - Average Usage for 2009 was 8.24"/acre

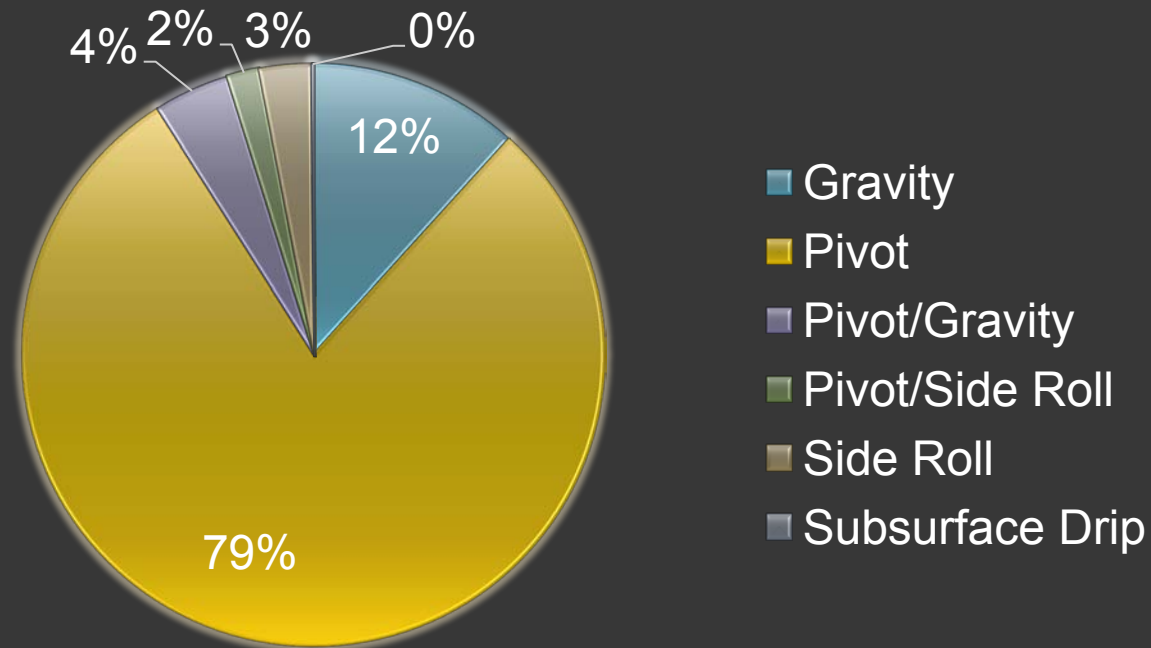
# Crop Water Usage

Crop	% of 2009 Acres	Avg. In.	% of 2010 Acres	Avg. In.
Alfalfa	10%	8.60	10%	10.5
Beans	6%	6.40	7%	9
Corn	39%	10.00	41%	11.5
Fallow	0%	0.00	1%	0
Hay	3%	6.00	3%	5.9
Other	0%	2.2	0%	7.3
Pasture	5%	6.20	5%	6.1
Potatoes	0%	9.6	0%	0
Small Grains	27%	3.90	23%	5.3
Sugar Beets	5%	11.50	5%	15.7
Sunflowers	4%	4.40	5%	6.8

# Irrigation Systems Breakdown

## Irrigation Systems in 2010

(Acre Based %)



# Irrigation Systems Breakdown

<b>TYPE</b>	<b>2010 Weighted Average</b>
Gravity	13.34"/acre
Pivot	9.6"/acre
Pivot/Gravity	10.81"/acre
Pivot/Side Roll	9.11"/acre
Side Roll	8.62"/acre
Subsurface Drip	9.7"/acre

All gravity only tracts are located in the Overappropriated Area of the District.

If the District converted all of the Gravity systems to a pivot, potentially 1600 AF water would not be pumped.

# To pool or not to pool....

- ◎ 7,400 acres currently pooled (not counting ownership poolings)
- ◎ If no poolings were allowed:
  - Average remaining allocation would go from 42.27"/acre to 41.92"/acre
  - Average Beginning allocation would go from 53.76 to 53.11.
  - Average usage would go down from 11.47 to 11.19
    - Zero Usage Tracts, flood fields that rotate between irrigated and dryland. 2010 was dryland year for most.
  - Not enough data to make any conclusions
    - Crop type change
    - Dryland rotations

# The Law of Averages.....

or what the SPNRD has seen so far



Average oil well  
(vertical)=  
265,000 gallons



Average  
gallon/cow/day =  
12 gallons

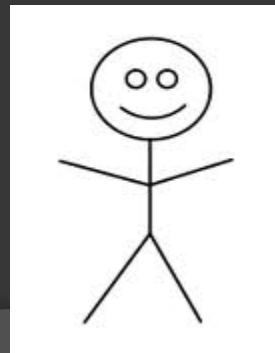


Aggregate  
Production for  
Asphalt = 370  
gallons/ ton of  
gravel



Average Sized Pivot  
of Corn = 32,600,000  
gallons (9.6"/acre)

New 2 land highway used 5,000,000 gallons per mile



Average water  
usage per person  
per day was 200  
gallons

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