2016 Reported Water Use for Kansas Counties

Use Made of Water
- Industrial
- Municipal
- Irrigation
- Recreation
- Stock

Seward: 167,329 AF
Reno: 56,190 AF
Wabaunsee: 3,869 AF

Disclaimer: Features on this map represent conditions as of the date of the map and are subject to change. The user is referred to specific policies, regulations and/or orders of the Chief Engineer. Uses of water for artificial recharge, contamination remediation, desalination, domestic, fire protection, hydraulic dredging, thermal exchange and water power use are not shown on the charts.

This map is intended for planning purposes only.

Kansas Department of Agriculture
Division of Water Resources
August 31, 2017
Kansas Water Right Development:
Points of Diversion in 1940
Aquifer declines 1996 - 2017

Change in Feet

- Decline Over -80
- 70 to -80
- 60 to -70
- 50 to -60
- 40 to -50
- 30 to -40
- 20 to -30
- 15 to -20
- 10 to -15
- 5 to -10
- 0 to -5
- 0 to 5
- 5 to 10
- Increase Over 10

1996 to 1997
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Flexibility and Conservation Tools

- **Multi-Year Flex Account (MYFA)**
  - Allows groundwater users in certain areas to have a 5-year allocation, exceed their annual appropriation, but limits overall use

- **Water Conservation Area (WCA)**
  - Streamlined and flexible tool that allows any water right owner or group of owners the opportunity to develop a management plan to reduce withdrawals

- **Local Enhanced Management Area (LEMA)**
  - Plan developed and submitted by a groundwater management district to address issues of overdevelopment for a given area
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WCAs:
- 53 plans (Wichita WCA which has 26 individual plans not included in the 53) covering 86,625 acres designed to save 11,951 acre-feet per year from recent historical use.

LEMA
- Sheridan 6
- NW Kansas GMD 4
- Wichita County

Online water user program:
- Over 90% of water users who are required by law are opting to report online. This makes the data more timely and accurate, and reduces agency costs associated with manual entry of handwritten water use reports.
GMD4
Sheridan-6 LEMA
2002-2005, 2008-2012, R²=0.76
2002-2005, 2008-2017, R²=0.88

Q_{av} = 29.9 - pre-LEMA period
Q_{av} = 18.4 - LEMA period

Average annual water-level change (ft)

Annual water use (10^3 acre-ft)
Reported and estimated* pumping for GMD 4 2000-2020

(*) predictor variables:
- ET (Jul-Aug)
- P (Mar-Jun)
Reported and estimated* pumping for GMD 3 2000-2020 based on 2006-2017 data

(*) predictor variables:
ET (Jul-Aug)
P (Mar-Jun)
Compacts:

- Compliance with all compacts and historically good relationships with our neighboring states.
- Meeting regularly with Colorado and Nebraska to stay on top of Republican River compact issues.
- Working with Colorado to find a path forward on Arkansas River water quality.
Probability of Uranium Exceeding 30 µg/L in Groundwater


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Dam Safety

- 6,154 National Inventory of Dams – June 2018
- 2,517 state regulated dams
- 258 high hazard dams
- 170 significant hazard dams

2021 ASCE Grade C+
Flood control dams are our silent protectors
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National Flood Insurance Program

- 455 communities participate
- 428 Regular Phase
- 27 Emergency Phase
- 82 communities not in the flood program
- 10,904 flood insurance policies in force
- $ 1.97 billion in property coverage
- $ 8,829,778 in annual premiums
- $ 87,978,711 in claims paid since 1978
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Water Structures Permitting

- Channel changes: 52
- Levees/floodplain fills: 188
- Stream obstructions: 128
  - Sand & gravel: 3
  - General permits: 87
- Dams: 25
- Floodplain ordinances: 8
Hot Topics

- Wichita ASR Permit
- Hays/Russell – R9 Transfer
- Rattlesnake Creek/Quivira
THANK YOU

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