



Division of Water Resources

Kansas Water Issues Forum - Wichita
February 29, 2012

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Chief Engineer

What is a water right?

- A water right is a real property right appurtenant to the authorized place of use
- A water right in Kansas does not constitute ownership of the water, rather ownership of a right to use water for a specific purpose as authorized by DWR
- Water may not be pumped for hydraulic fracturing or other uses related to oil/gas production under the authority of an existing water right authorizing a different use of water such as an existing irrigation water right



Kansas Water Appropriation Act

- K.S.A. 82a-728 requires a permit from DWR for all uses of surface water or groundwater except:
 - Domestic Use (Household purposes or certain small unconfined stock wells)
 - Salt water or brine produced incidental to operating an oil/gas well (5,000 milligrams per liter chlorides)
 - **Use of less than 15 acre-feet stored in any reservoir with a total volume of less than 15 acre-feet.**
 - Withdrawal of water under contract with the State of Kansas related to conservation storage in a federal reservoir (generally municipalities)

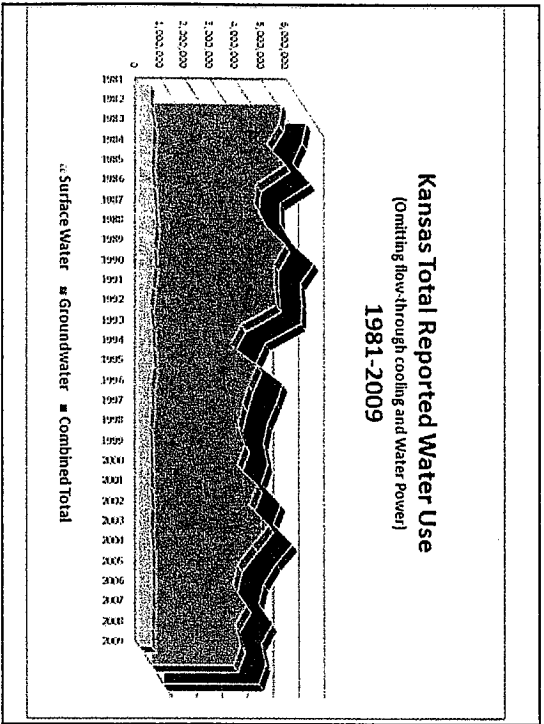


Water Use for Hydraulic Fracturing

- Approximately 8 to 10 acre-feet per project
- Expecting 100 to 200 hydraulic fracturing projects in 2012
- 200 projects x 10 acre-feet = 2000 acre-feet
- 2000 acre-feet is equivalent to about 9 fully irrigated center pivots in Western Kansas
- Approximately 0.05% of total water use in Kansas.

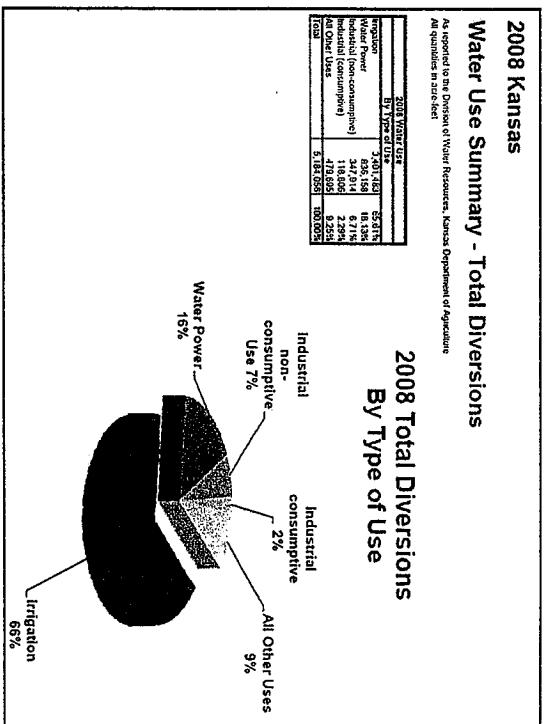


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K.S.A. 82a-727 - Temporary Permits

- Currently allows the use of up to 1.0 million gallons of water for up to 6 months
 - Generally 250,000 gallons considered reasonable for conventional oil/gas well completion
 - No permanent water right developed
 - Designed primarily for oil/gas field operations
- Authorized by statute in 1977
- Rules and Regulations implemented in 1979
 - One application per project
 - Single point of diversion and place of use
 - **Must not impair existing users**
 - Not transferable



K.S.A. 82a-708c - Term Permits

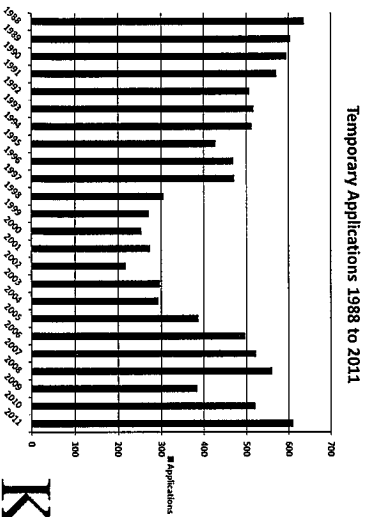
- Allows larger quantities of water and longer periods of use up to 5 years
 - Proposed quantity and time frame must be reasonable for the proposed use
 - No permanent water right is developed
 - Also not subject to safe yield requirements
 - **Must not impair existing users**

KDA/DWR Proposal

- Amend K.A.R. 5-9-3 to increase the cap on temporaries to allow up to 4.0 million gallons (12 acre-feet) to accommodate hydraulic fracturing
 - Equivalent to approximately 12.3 acre-feet
- Current temporary permit regulations allow greater control over water use at individual projects than term permits
 - One application per project
 - Single point of diversion and place of use
 - Shorter authorized time frames
 - Non-transferable
 - Meter record keeping requirement
- **GMDs may adopt rules to require offsets**



Application Trends

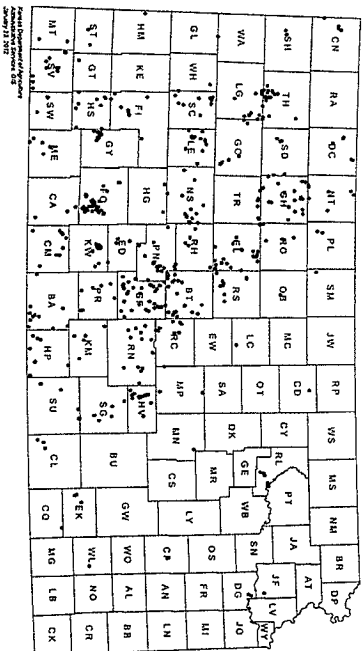


Use of Water from Municipal Suppliers

- ▣ Water may be obtained from a city or rural water district if they have the water to sell
- ▣ Water supply **cannot** be obtained through the use of effluent from public water suppliers
 - Consumptive use, once established, cannot be increased under any water right. (K.A.R. 5-5-3)
 - Place of use for municipal use is tied to the common distribution system
 - Effluent stream is not part of the common distribution system



Temporary Industrial Permits with Priority Dates Between 10/13/2010 and 10/13/2011



How much activity is DWR seeing?

- There are over 100 drilling rigs currently active in Kansas -- not just for hydraulic fracturing projects
- More than 600 temporary applications were filed with DWR in 2011 for "typical" oil and gas projects
 - Number does not include projects that fit within the exception allowed by K.S.A. 82a-728 -- no permit required from DWR
 - Highest number of temporary applications received since the late 1980's
 - DWR expects a record number of temporary applications in 2012
 - So far, during first 2 months of 2012, we have received 170 temporary applications.



Questions?



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DWR Currents

March 22, 2012

Legislative update: Remaining water bills making progress
Chief Engineer proposes to raise cap on temporary permits
MDS Administration commences on the Smoky Hill River
Upcoming events

Legislative update: Remaining water bills making progress

The past two weeks have seen continued progress on this legislature's action on water legislation.

☐ Senate Bill 310, providing for the establishment of local enhanced management areas (LEMAs), was passed by the Senate on March 15 and then by the House on March 20. The bill will go directly to the Governor for his consideration.



☐ House Bill 2516, allowing additional water banks and allowing a charter to become "permanent" was amended by the Senate Agriculture committee and passed favorably by the full Senate on March 20.

☐ House Bill 2517 originally proposed to make the water transition assistance program (WTAP) permanent. The Senate Agricultural Committee amended the bill to provide for a sunset of the program in 10 years. It was passed by the Senate on March 20.

☐ House Substitute for Substitute Senate Bill 148, providing for the division of water rights, was passed by the House on March 21. The bill also contains language that amends water right provisions for sand and gravel operators.

The three bills above – HB 2516 and HB 2517, and SB 148 – will be considered by conference committees next week.

As mentioned last week, ☐ House Bill 2451 eliminating water right abandonment for groundwater rights in areas closed to new water right development and ☐ Senate Bill 272 revising the multi-year flex account program was signed by Governor Brownback on March 5. Senate Bill 272 was published in the Kansas Register on March 15 PDF, making it immediately effective pursuant to its provisions. Additional information about MYFA, including a revised application form, will be made available on the DWR website in the coming weeks.

Chief engineer proposes to raise cap on temporary permits

A public hearing will be conducted on Tuesday, May 22, 2012, to consider revision of a rule and regulation pertaining to the maximum quantity that can be approved under a temporary water permit. The current regulation allows up to one million gallons of water under a temporary permit. The proposed amendment to the regulation would allow up to four million gallons of water to be authorized by a single temporary permit. This change is primarily to accommodate uses of water for enhanced oil and gas recovery methods, including horizontal drilling and hydraulic fracturing.

Water used for oil or gas production generally requires approval from the chief engineer under the Kansas Water Appropriation Act (KWAA). The authority to issue temporary permits was added to the KWAA in 1977 (K.S.A. 82a-727), to accommodate the need for water in oil and gas production. Additional rules and

regulations (K.A.R. 5-9-1 through K.A.R. 5-9-11) were promulgated by the chief engineer in 1979. Failure of an oil and gas producer to follow the requirements of the KWAA and receive approval of the chief engineer prior to the use of water for oil and gas production is a Class C misdemeanor and can subject the producer to civil penalties as provided in K.S.A. 82a-728, K.S.A. 82a-737 and K.A.R. 5-14-10.

It should be noted that greater quantities of water are already permissible through the filing of an application term permit, a similar type of application which carries no regulatory cap on the maximum quantity of water that may be requested. Moreover, term permits are not restricted with regard to the total number of projects that can be requested and there is no requirement for producers to specify where water will actually be used. In most cases, term permits are granted for a period of 5 years. Temporary permits are more limited with regard to authorized time frames and place of use, requiring oil and gas producers to be more specific about their water use on an as needed basis. These restrictions also give the chief engineer more oversight with regard to water used for hydraulic fracturing.

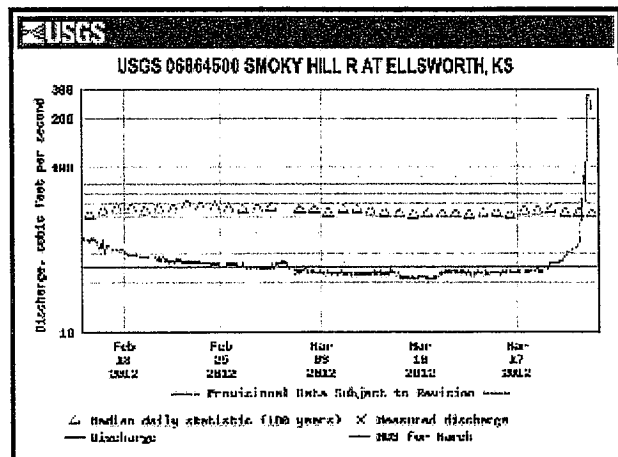
The hearing will begin at at 10:00 a.m. on May 22, in the 4th floor training room of the Kansas Department of Agriculture, 109 S.W. 9th, Topeka. The hearing notice, economic impact statement and proposed rule changes have been posted on our website, along with an online comment form.

More information about horizontal drilling and hydraulic fracturing can be found in a public information circular released by the Kansas Geological Survey. Presentation materials from the recent Kansas Water Issues Forum covering these topics, including a presentation delivered by Chief Engineer David Barfield, are available from the Kansas Water Office website.

MDS administration commences on the Smoky Hill River

On Mar. 14, Chief Engineer David Barfield issued orders to curtail water withdrawals under three surface water rights on the Smoky Hill River with priority dates after April 12, 1984. The affected area is upstream from the Smoky Hill River gage at Ellsworth to the confluence with Big Creek. Streamflow had fallen below Minimum Desirable Streamflow (MDS) levels for at least seven consecutive days before the orders were issued.

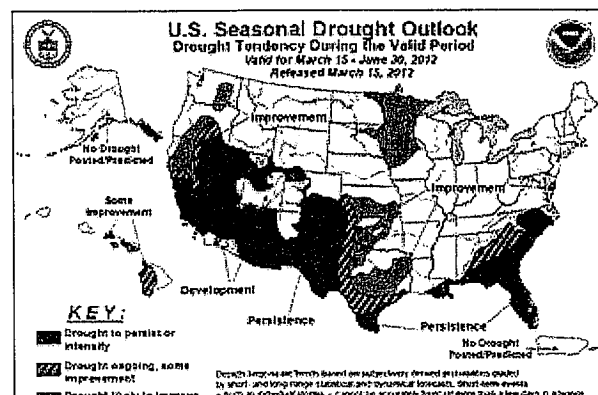
Right: Graphic showing streamflows at the Smoky Hill River gage at Ellsworth, courtesy of U.S. Geologic Survey. Click to view current data.



Precipitation events this week have caused streamflow to recover. If streamflow remains above the MDS-level for 14 consecutive days, or if flow is high enough before the 14-day criteria is met that it appears flow will remain above MDS for the foreseeable future, the chief engineer may end administration in this reach of the Smoky Hill River.

The only other stream currently under MDS Administration is the Little Arkansas River above Alta Mills, which has been under administration since May 9, 2011. MDS administration in that reach affects eight surface water rights.

The latest Drought Outlook from the National Oceanic and Atmospheric Administration, released March 15, forecasts improving drought conditions for most of Kansas during the next few months. Their latest seasonal assessment indicates that during the remainder of March, more beneficial precipitation can be expected across the Great Plains, especially across southeast Kansas. March precipitation coupled with an increasingly wet climatology favor improvement across parts of the Great Plains along with the western Corn Belt and upper Mississippi Valley.



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