

# MEMO



DATE: December 28, 2017  
TO: Equus-Walnut RAC and Agency Advisors  
FROM: Matt Unruh, Kansas Water Office  
RE: January 8, 2018 RAC Meeting

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Topeka, KS 66612  
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[www.kwo.org](http://www.kwo.org)

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The next meeting for the Equus-Walnut Regional Advisory Committee (RAC) is scheduled for **1:00 pm Monday, January 8, 2018, at the Harvey County Health Department, 2nd Floor Community Room, 215 South Pine Street, Newton, KS.**

The main items of discussion at the meeting will focus on action plan implementation for the Equus-Walnut Regional Goals associated with the Vision for the Future of Water Supply in Kansas as well as the status of surface and groundwater conditions within the Equus-Walnut region.

Enclosed please find:

- Agenda
- Press Release
- September 2017 Draft Meeting Notes

Please let me know if you cannot attend, or have any questions or concerns regarding the meeting please contact, me at [matt.unruh@kwo.ks.gov](mailto:matt.unruh@kwo.ks.gov); or toll-free at (888) KAN-WATE(R).



**EQUUS-WALNUT  
REGIONAL ADVISORY COMMITTEE  
MEETING AGENDA**

**DATE:** January 8, 2018

**TIME:** 1:00 PM

**LOCATION:** Harvey County Health Department  
2<sup>nd</sup> Floor Community Room  
215 Pine St, Newton

**AGENDA DETAILS**

- I. Welcome and Introductions**
- II. Regional Advisory Committee (RAC) Approval of Agenda**
- III. RAC Approval of September 2017 Meeting Notes**
- IV. Kansas Water Authority (KWA) & Budget/Legislative Update**
- V. Regional Activities**
  - a. State of the Resource Report/Vision Action Plan Implementation Report
  - b. State of the Resource Public Meeting
  - c. KDHE Technical, Financial and Managerial (TFM) Survey Discussion
    - i. Webinar Option
- VI. Other Business**
  - a. Agency reports not previously discussed
  - b. Public comments
  - c. Questions and Future Issues from RAC Members
  - d. Messages to the KWA
  - e. Future Meetings
    - i. Kansas Water Authority
      - January 23-24, 2018; Topeka
    - ii. Equus-Walnut RAC
      - TBD
      - KDHE TFM Webinar - TBD

900 SW Jackson Street  
Topeka, KS 66612



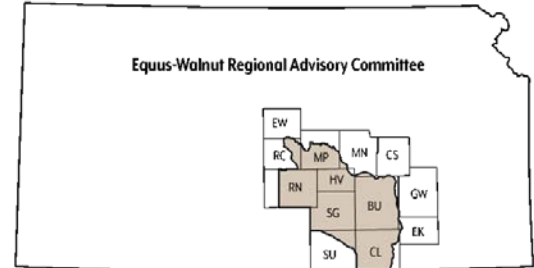
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[www.kwo.org](http://www.kwo.org)

Tracy Streeter, Director

Sam Brownback, Governor

Meeting Notice:  
December 28, 2017

For More Information:  
Katie Patterson-Ingels  
(785) 296-3185, [katie.ingels@kwo.ks.gov](mailto:katie.ingels@kwo.ks.gov)



**Equus-Walnut Regional Advisory Committee Meeting in Newton**  
*January 8, 1p.m. at the Harvey County Health Department*

The Kansas Water Office's (KWO) Equus-Walnut Regional Advisory Committee (RAC) will have a meeting to discuss current water issues affecting the region as well as the state.

The meeting will be held Monday, January 8 at 1 p.m., at the Harvey County Health Department, 215 Pine Street in Newton, Kansas. The main items of discussion will focus on action plan implementation for the Equus-Walnut Regional Goals associated with the *Vision for the Future of Water Supply in Kansas* as well as the status of surface and groundwater conditions within the region.

The agenda and meeting materials will be available at [www.kwo.org](http://www.kwo.org) or you may request copies by calling (785) 296-3185 or toll-free at (888) KAN-WATER (526-9283).

If accommodations are needed for a person with disabilities, please notify the Kansas Water Office at 900 SW Jackson Street, Suite 404, Topeka, KS 66611-1249 or call (785) 296-3185 at least five working days prior to the meeting.

Note to Editor: The Americans with Disabilities Act, (42 U.S.C. 12101) requires the Kansas Water Office to print the reasonable accommodations messages.

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*As the state's water office, KWO conducts water planning, policy coordination and water marketing as well as facilitates public input throughout the state.*

*The agency prepares the KANSAS WATER PLAN, a plan for water resources development, management and conservation.*

**Equus-Walnut Regional Advisory Committee Meeting**  
**10:00 a.m., September 21, 2017**  
**Wichita Art Museum**  
**Wichita, KS**

**Members Attendance:**

Name	City	Category	Term	Present
Steve Hieger (Chair)	Wichita, KS	Industry/Commerce (cc)	2019	Yes
Roger Black	Arkansas, City, KS	Watershed Protection	2019	Yes
Kurt Bookout	El Dorado, KS	Public Water Supply 2	2017	No
Dan Haines	Leon, KS	Conservation/Environment 2	2019	Yes
Bob Seiler	Valley Center, KS	Groundwater Management	2019	No
Don Koci	Hutchinson, KS	Public Water Supply 3	2017	No
Jesse McCurry	Colwich, KS	Agriculture (cc)	2017	No
Brian Meier	Wichita, KS	Industry/Commerce 2	2017	Yes
Denise Middleton	Burden, KS	Agriculture 2	2019	Yes
Joseph Pajor	Wichita, KS	Public Water Supply (cc)	2019	Yes
Lewjene Schneider	Maize, KS	At Large Public (cc)	2017	No
Russell Tomevi	Winfield, KS	Integrated Planning	2019	Yes
Byron Warta	Newton, KS	Conservation/Environment (cc)	2017	Yes

**Others in attendance:**

Name	Affiliation
Sandy Koontz	Butler Co. Conservation District/El Dorado WRAPS
Scott Macey	City of Wichita
David Bollenback	KCC
Calvin Kissick	Kansas Water Authority
Tim Boese	GMD2
Lisa French	Cheney Lake Watershed
Isaac Broeckelman	Upper Timber/Grouse-Silver WRAPS
Larry Close	Burns & McDonnell
Ted Saranchuk	Public
Matt Unruh	KWO

1. **Welcome and Introductions:** Chair Steve Hieger welcomed those in attendance to the meeting. Everyone present provided introductions of themselves.
2. **Approval of Agenda:** Byron Warta made the motion to approve the meeting agenda as presented, second provided by Brian Meier. Motion carried.
3. **Approval of May 2017 Meeting Notes:** Roger Black made the motion to approve the May 2017 meeting notes, second provided by Russ Tomevi. Motion carried.

#### 4. Kansas Water Authority Report

- a. May Garden City Meeting: Matt Unruh provided an update on the May 2016 KWA meeting in Garden City. The Equus-Walnut RAC's message to the KWA regarding a one-time suspension of the IPM to allow for RAC Chairs to serve consecutive terms. The KWA took action on this topic and approved a one-time suspension of the IPM regarding RAC Chair terms, allowing RAC Chairs to conserve a consecutive term from their original term which would expire August 31, 2019. RAC reports were delivered to the KWA from the Upper Arkansas, Cimarron, Red Hills, Upper Republican, Upper Smoky Hill, Solomon-Republican, and Great Bend Prairie RACs.
- b. August Pittsburg Meeting: Chair Steve Hieger and Matt Unruh provided an update on the August KWA meeting in Pittsburg. Chair Steve Hieger delivered a progress update on Equus-Walnut Action Plan implementation to the KWA.

GMD2 Manager Tim Boese also discussed ongoing efforts regarding proposed legislation to allow GMDs to increase assessment caps.

#### 5. Regional Activities

- a. City of Wichita ASR Operations Permit Update: Scott Macey from the City of Wichita delivered an update on proposed changes the City's Aquifer Storage & Recover (ASR) operating permit. Attachment 1 includes information shared regarding this proposed permit update.
- b. El Dorado Regional Water Summit: Matt Unruh, Joe Pajor, and Dan Haines discussed this meeting hosted by the City of El Dorado on July 6 to open dialogue with regional water suppliers regarding the availability of water within El Dorado Lake.
- c. Lower Quality Water Summit: Matt Unruh provided an update on the Lower Quality Water Summit which took place July 18 in Hutchinson. This event was hosted by the City of Hutchinson at their Water Treatment Center. Representatives from the Equus-Walnut, Great Bend Prairie, Red Hills and Smoky Hill-Saline RACs were all present as well as a number of agency representatives.

Roger Black discussed his recent personal experience with salt water disposal lines.

- d. State of the Resource: Matt Unruh provided an update on a document currently being drafted to characterize the current state of the water resource conditions within the Equus-Walnut Region. This State of the Resource report and potential meeting will be discussed in greater detail at the next meeting

#### 6. Other Business

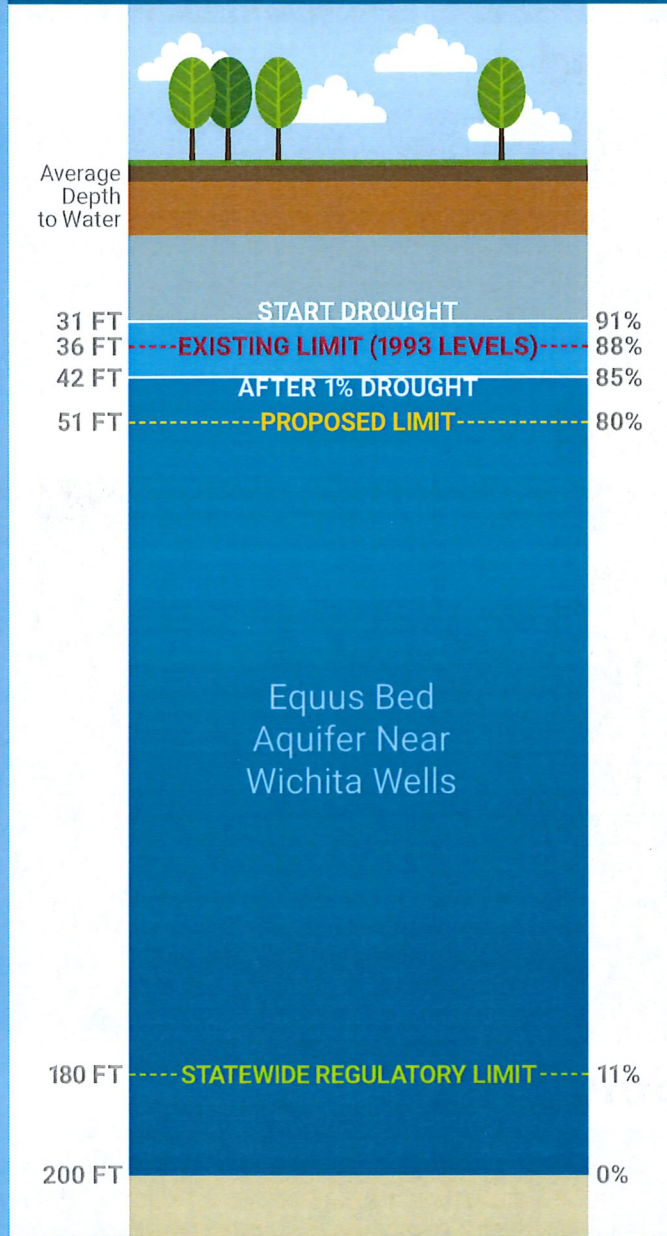
- a. Agency Reports
  - i. Tim Boese, GMD2 Manager, discussed the recent boundary expansion of the Equus Beds GMD.
- b. Messages to the Kansas Water Authority: None provided
- c. Future Meetings: Equus-Walnut RAC TBD

#### 7. Adjourn

- a. Motion made to adjourn the meeting made by Denise Middleton, seconded by Brian Meier. Motion carried and meeting was adjourned at 12:00 pm.

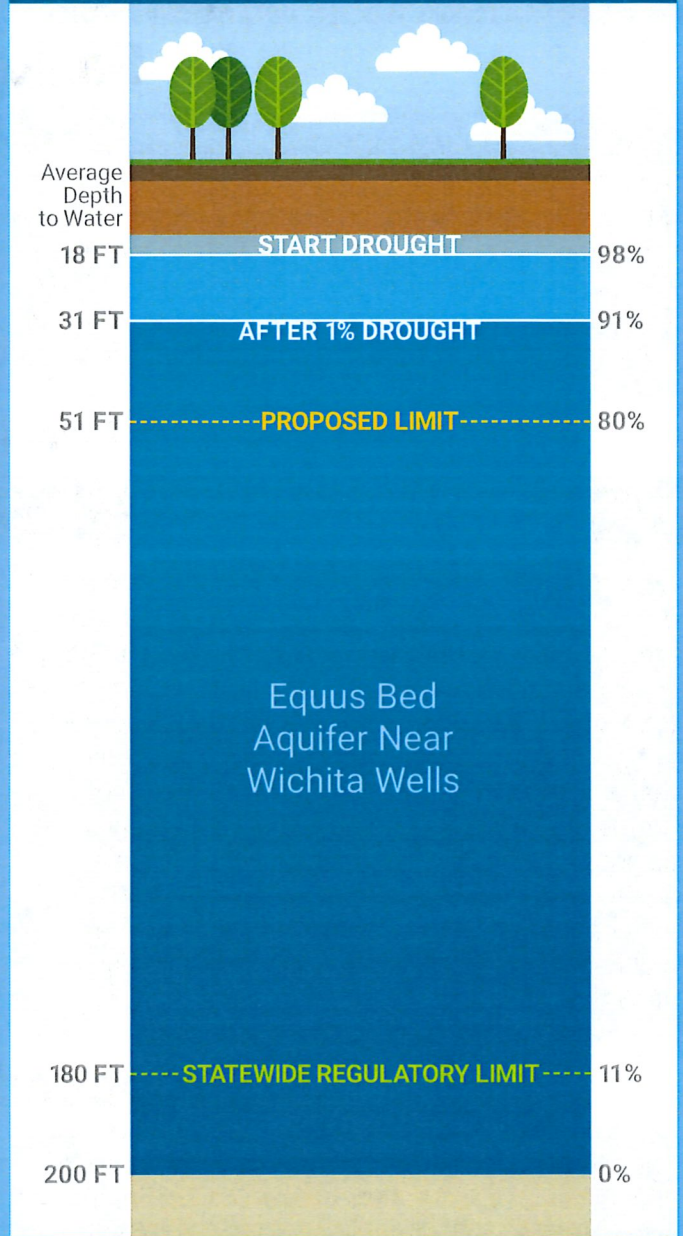
# Outcome of 1% Drought Comparisons

## Existing Permit Conditions



- The City could access their credits early in the drought while above 1993 levels
- The aquifer depth will lower to 1993 levels within 2 years
- This could occur every 10 years
- This results in lower aquifer levels on an ongoing basis

## Proposed Permit Modifications



- The aquifer would be maintained at optimum levels
- The aquifer is protected from unnecessary fluctuations
- This protects water quality – it leaves more native water in the aquifer and slows chloride intrusions

# Equus Beds Aquifer and Preparing Wichita for Drought: **Proposed Changes**



## Background

The City of Wichita's Aquifer Storage & Recovery (ASR) project diverts water from the Little Arkansas River when the river flows are high, treats it to drinking water standards and injects the processed water into the Equus Beds aquifer. By doing this, the City accumulates **recharge** credits with the Kansas Department of Agriculture allowing it to withdraw this additional water from the Equus Beds aquifer when needed. The ability to establish and utilize these credits is critical to ensuring the City can meet the demand during an extended drought (referred to as a 1% drought). There are two interrelated issues that could hamper the City and other user's drought preparedness and compromise the quantity and quality of the water supply.

## The Issues

### Water Level Limits

Current water permit regulations only allow the use of recharge credits when aquifer groundwater levels are at or above a **minimum standard**. That standard is based on the lowest level in the aquifer's history (**88% of pre-development water depths**), recorded in 1993. The unintended result of this limitation is that at the beginning of a drought, it may be necessary for the City to draw as much water out of the aquifer as possible before reaching the 1993 limit. Other aquifer users will also be making full use of their water rights, which means the 1993 limit will be reached faster before other water rights are utilized and the aquifer water level is lowered even further.

### Credit Creation

In 2017, the aquifer had recovered to 98% full. While a high groundwater level provides significant benefits to users and the aquifer, it severely limits the physical recharge capacity of the ASR system and, thereby, the creation of recharge credits and the City's drought readiness. Instead of injecting water into the aquifer, the ASR system can pump the treated water directly to the City, but permit regulations do not allow recharge credit creation through this process. The City can only accumulate recharge credits while the aquifer level is high by drawing water out for City use, then using the ASR system to inject water back into the aquifer.

## Proposed Solutions

The City proposes lowering the limit when accrued credits can be used to **80% of pre-development water depths**. This proposed modification would eliminate the need to immediately draw water from the aquifer during a drought and extend the amount time before the City would need to access credits by years, keeping aquifer water levels higher.

The City proposes that new **maintenance** credits will be accrued by using the ASR system to divert Little Arkansas River water to supply Wichita directly, allowing the City to build the credits needed during a drought. This proposed modification would allow the aquifer to be as full as possible which benefits all users and helps maintain the aquifer's water quality.

## Next Steps

The City will present the proposed changes to the public including other aquifer users during a series of public engagement meetings. The proposal will also be shared with the Chief Engineer of the Kansas Department of Agriculture who will make the final decision on whether to revise the water level permit conditions.