

Kansas Water Authority

Meeting

December 14-15, 2022

Colby, KS



MEETING AGENDA

Wednesday, December 14, 2022

Agenda

<i>Time</i>	<i>Agenda Item</i>	<i>Presenter</i>	<i>KWA Advice</i>	<i>KWA Decision</i>	<i>Page No.</i>
2:00 pm	Call to Order/Roll Call	Dawn Buehler	--	--	--
2:05 pm	Approval of Meeting Minutes				--
	October 19, 2022 Meeting	Dawn Buehler		X	2
2:10 pm	KWA Public Water Supply Committee	John Bailey			6
	CY2023 Surplus Water Report	Richard Rockel		X	8
2:30 pm	KWA Ogallala Aquifer Committee	Dawn Buehler			--
	KWA Policy Recommendations for Ogallala Aquifer	Matt Unruh		X	45
3:30 pm	BREAK				--
3:45 pm	KWA Annual Report to Governor & Legislature	Victoria Potts		X	47
4:45 pm	Day 1 Wrap Up & Adjourn	Dawn Buehler			--

Thursday, December 15, 2022

Agenda

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8:30 am	Call to Order/Roll Call	Dawn Buehler	--	--	--
8:35 am	KWA RAC Operations Committee	Jeremiah Hobbs			--
	RAC Membership			X	48
	RAC Messages to the KWA			X	49
9:20 am	Legislative Update	Victoria Potts			--
9:30 am	WaterWise Update	Weston McCary			--
10:00 am	BREAK				--
10:15 am	GMD 4 & 1 Water Conservation Success Stories	Shannon Kenyon Katie Durham			--
11:00 am	KWA Ex Officio Agency Updates	Dawn Buehler			--
11:30 am	Director's Report	Connie Owen			--
11:40 am	New Business	Dawn Buehler			--
11:45 am	Adjourn	Dawn Buehler			--

Call to Order/Roll Call

Call to Order/Roll Call; *Dawn Buehler*

Minutes

Presented by: Dawn Buehler



Action Needed

Approval of minutes from:
October 19, 2022

KWA Public Water Supply Committee

Presented by: John Bailey & Nathan Westrup



Actions Needed Following 12/5/2022 Meeting:

- Consider approval of CY2023 Surplus Water Report

KWA Ogallala Aquifer Committee

Presented by: Dawn Buehler & Matt Unruh



Actions Needed Following 11/29/2022 Meeting:

- Recommended KWA approval of the proposed policy and action statements regarding sustainability of the Ogallala Aquifer in Kansas.

MEMO



DATE: December 7, 2022
TO: Kansas Water Authority
FROM: Matt Unruh
RE: KWA Ogallala Aquifer Committee Update

900 SW Jackson Street, Suite 404
Topeka, KS 66612
Phone: (785) 296-3185
Fax: (785) 296-0878
www.kwo.ks.gov

The Ogallala Aquifer Committee of the Kansas Water Authority (KWA) met on November 29 in Hays, Kansas. Committee members present for the meeting were as follows:

- Voting (all present): Dawn Buehler, Lynn Goossen, Randy Hayzlett, Jeremiah Hobbs, and Jean Steiner.
- Ex Officio: Mike Beam (KDA), Earl Lewis (KDA-DWR), Andrew Lyon (KDA-DOC), Connie Owen (KWO), and Brownie Wilson (KGS).

This meeting was convened by Dawn Buehler, KWA Chair, as an initial KWA next step following the KWA's approval of the *Kansas Water Plan* at the August 2022 KWA meeting in Manhattan. Within the "Conserve and Extend the High Plains Aquifer" Guiding Principle section there is a *Kansas Water Plan* recommendation which states "*The Kansas Water Authority shall create a committee to consider sustainability as part of the Guiding Principle addressing the Ogallala Aquifer*". Information discussed at the meeting pertained to sustainability of the Ogallala Aquifer.

Chief Engineer Earl Lewis provided an overview of Ogallala Aquifer policy in Kansas and Brownie Wilson provided a presentation on efforts to measure High Plains Aquifer system in Kansas which includes the Ogallala Aquifer. Connie Owen provided an overview of applicable statutes and regulations on groundwater use from the Ogallala Aquifer in Kansas. Following these presentations and further discussion, the below language was drafted for consideration by the full KWA based on feedback provided by Committee members:

The Kansas Water Authority recommends

- *The policy of planned depletion of the Ogallala Aquifer is no longer in the best interest of the State of Kansas.*
- *A formal collaborative process is needed to establish data-driven goals, metrics, and actions to halt the decline of the Ogallala Aquifer while promoting flexible and innovative management within a timeframe that achieves agricultural productivity, thriving economies, and vibrant communities – now and for future generations of Kansans.*
- *The collaborative process should engage state agencies, regional advisory committees, local stakeholders, groundwater management districts, and the Kansas Water Authority.*

Committee members discussed and took action to approve the previously listed language for consideration and potential action by the full KWA at the December 2022 meeting in Colby. Four members of the committee voted to approve the recommended language for consideration by the full KWA, with one voting member abstaining from the vote.

If approved by the full Kansas Water Authority, these recommendations pertaining to sustainability of the Ogallala Aquifer in Kansas would be included within the 2023 Kansas Water Authority Annual Report to the Governor and Legislature.

The KWA Ogallala Aquifer Committee recommends KWA approval of the proposed policy and action statements regarding sustainability of the Ogallala Aquifer in Kansas.

The Kansas Water Authority recommends

- *The policy of planned depletion of the Ogallala Aquifer is no longer in the best interest of the State of Kansas.*
- *A formal collaborative process is needed to establish data-driven goals, metrics, and actions to halt the decline of the Ogallala Aquifer while promoting flexible and innovative management within a timeframe that achieves agricultural productivity, thriving economies, and vibrant communities – now and for future generations of Kansans.*
- *The collaborative process should engage state agencies, regional advisory committees, local stakeholders, groundwater management districts, and the Kansas Water Authority.*

BREAK

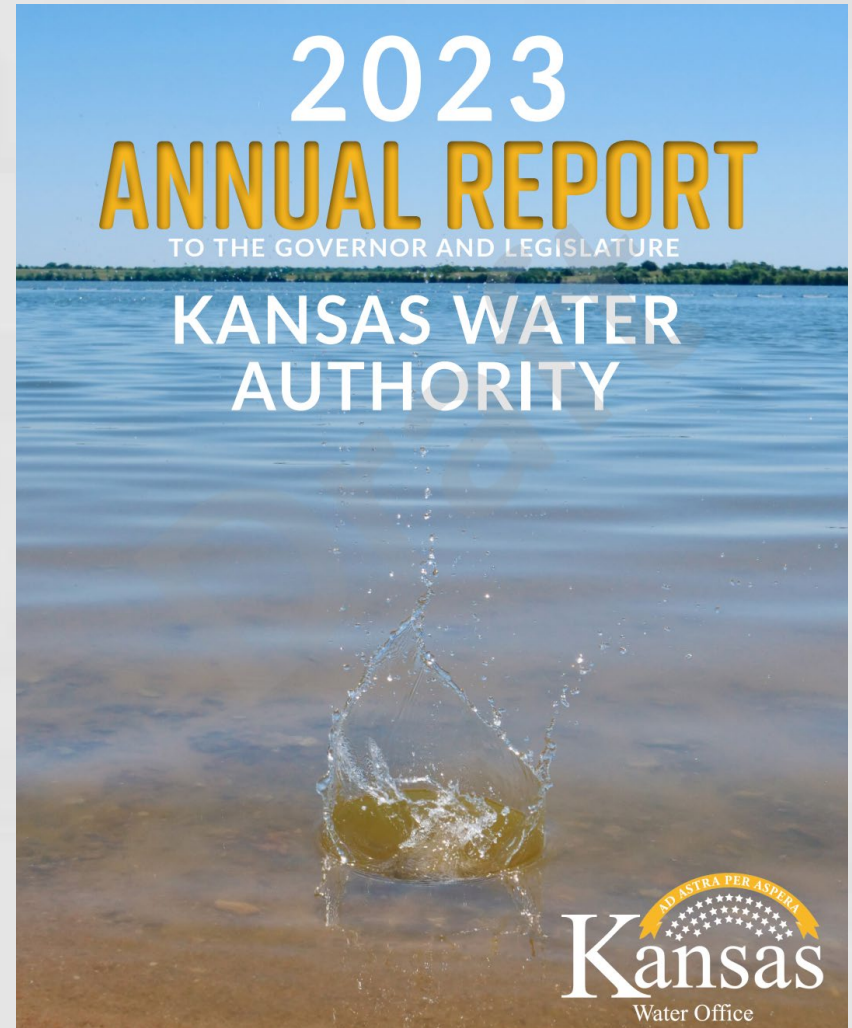
Meeting will resume soon

KWA Annual Report to the Governor and Legislature

Presented by:
Victoria Potts



Action Needed



RECOMMENDED NEXT STEPS

- KWO recommendation of KWA approval of the Annual Report to the Governor and Legislature with editorial license.
- Any additional KWA comments requested to be submitted to Victoria Potts and/or Matt Unruh by 12/23
- Following review of comments and accompanying revisions, report finalized and delivered to the Governor and Legislature at beginning of 2023 Legislative Session

Day 1 Wrap Up & Adjourn

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Call to Order/Roll Call

Call to Order/Roll Call; *Dawn Buehler*

KWA RAC Operations Committee

Presented by: Jeremiah Hobbs & Angela Anderson



Actions Needed Following 11/30/2022 Meeting:

- RAC Membership
- RAC Messages to the KWA

RAC Membership

The Committee reviewed and discussed the application of John Garris from Independence, KS for membership on the Verdigris RAC. The following membership recommendation was approved by the RAC Operations Committee:

- Recommend John Garris be considered for the *Public Water Supply (cc)* category with a term expiration of June 2023.

Upper Republican Regional Advisory Committee:

Message:

"Upper Republican Regional Advisory Committee would like to register its objection to the waste of water perpetrated by the Southwest Groundwater Management District No. 3. The Kansas Water Appropriation Act does, on numerous occasions, reference the "beneficial use of water". Most succinctly in K.S.A 82a-718 (a) All Appropriations of water must be for some beneficial purpose. Under K.A.R 5-1-1 Beneficial uses are specifically defined, please note that "Proof of Concept (POC)" is not among those listed. We feel that the act of moving water from one recognized source (surface water of the Missouri River) to another (groundwater of the Arkansas River in GMD 3 or any other basin) and simply dumping it on the ground can only be construed as a poorly disguised attempt at Artificial Recharge.

In "concept" Artificial Recharge is in fact already recognized as a beneficial use of water under K.A.R. 5-1-1. Furthermore, this "concept" is the subject of several other regulations. Specifically, K.A.R. 5-5-7 entitled Waste of water provides, "Each application for a permit to appropriate water for artificial recharge shall include a methodology of accounting for water stored in a basin storage area both on an annual basis and on a cumulative basis so that recharge credits can be calculated." K.A.R 5-12-1 through 4 provide better definition of the accounting and measurement methodologies to be used in conjunction with any permitted artificial recharge project."

It is the opinion of the Upper Republican Regional Advisory Committee, based on the statutes and regulations referenced above, that recent and previous actions by the Southwest Kansas Groundwater Management District No. 3 constitute a waste of water and should not be permitted in the future."

Background: In response to recent and previous activities from Southwest Kansas Groundwater Management District Number 3, the Upper Republican RAC has expressed opposition to the district's "Proof of Concept" water transfer proposals submitted to the Division of Water Resources; the RAC interprets state regulation as indicating these activities to be a waste of water and unauthorized under state regulation.

Staff Input: The Kansas Water Office, along with the Corps of Engineers, led the 2015 review of the potential project to transfer water from the Missouri River to western Kansas. The *Long-Term Vision for the Future of Water Supply in Kansas* included a section to "allow for the transfer of water supplies between basins where feasible and cost-effective." The project outlined in the 1982 Corps of Engineers study, and updated in 2015, was determined to not be viable or cost effective. We recognize that there are interests that continue to evaluate alternatives to the system as envisioned. No subsequent specific proposal or plan has been submitted to date.

Proposed Resolution: The Kansas Water Authority agrees with the Upper Republican RAC's objection to Groundwater Management District No. 3's proposed activity (approved under DWR Term Permit, File No. 202090910) based on the statutes and regulations cited by the Upper Republican RAC, and that all future applications for artificial recharge must meet regulatory criteria under the Kansas Water Appropriation Act.

Message:

"The Missouri Regional Advisory Committee (RAC) would like the KWA to discuss the Proof of Concept (POC) related to water transfer from the Missouri River to locations in western Kansas and Colorado. The current POC was approved on June 1, 2022. However, a letter written on July 27, 2021, asked questions of Groundwater Management No. 3 (GMD 3) that the Missouri RAC is not sure were answered in the response by Mark Rude to the letter. Mark Rude presented at the February 2, 2022 Missouri RAC meeting and was asked multiple questions, one of which was if GMD 3 would notify the Missouri RAC if any additional transfers were to take place prior to approval. The RAC was not contacted by GMD 3 concerning this transfer.

In the letter addressed to Mark Rude, GMD 3, dated July 27, 2021, from Earl D Lewis, PE, Chief Engineer, concerning an application for Interstate Water Transfer POC-Term permit No. 20209091, Mr. Lewis responded with four conditions that needed to be met before the application could be approved. The letter also asked for Mr. Rude to provide a plan with the primary steps planned to scale up to a full water transfer. A request was also made in the letter that a report summarizing what has been learned or not learned be included with the application. The Missouri RAC would like answers to some of these questions/requests and would like to have a better understanding of how KSA 82a-726, the requirement that KS coordinate with the Colorado Attorney General was accomplished before the permit was approved.

In reviewing the response dated August 2, 2021 from Mr. Rude concerning the questions above, the Missouri RAC would like to request more information concerning:

- 1. How is GMD3 showing that the source water is above base-flow stage in the stream when it is being withdrawn from the site located at 2-10-23E in Leavenworth, KS?*
- 2. Mr. Rude discusses in paragraph 5 of his letter dated August 2, 2021, "Beneficial purpose means that water must be used for legitimate, documentable needs and cannot be hoarded by, or for, those without needs for it", they also mention "unused Missouri River flows". How is GMD3 documenting that there is a beneficial purpose that is legitimate? How is GMD3 documenting if there is a need for the water to remain in the Missouri River? Were all public water users downriver from the collection site contacted beforehand to find out if the purpose would be beneficial and if there was a need for the water in its current location? What and who defines unused flows?*
- 3. What is the scientific justification for this POC? How is GMD3 showing scientifically that this POC will not degrade the ambient groundwater quality in the storage area? What are the criteria for success and how will this be measured?*
- 4. How is GMD3 proving that the POC is replenishing the water supply in the aquifer? Is there actual data proving that the previous POC helped recharge the aquifer? Or has a study been made that shows how much water would be needed annually to resupply the aquifer? If so, where is the study found? What additional adaptation strategies has GMD3 considered as alternative to the water transfer, similar to proven strategies that other GMDs are currently implementing?*
- 5. Where is the proposed plan for scaling up from the small POC to a full-scale project? What specific results and what definite future plans is this POC trying to prove?*

- 6. Why is a portion of the water from the Missouri River being transferred to the State of Colorado? Was there a coordination between KS and the Colorado Attorney General before the permit was approved? If so, why wasn't that communication included with the approval or request of the permit?"*

Background: The Missouri River is the largest river that flows through or is adjacent to the State of Kansas. It is also the longest river in North America and its basin covers one-sixth of the lower 48 states. The mainstem reservoir system includes six large dams that have the capacity to store over 74 million-acre feet (MAF), not counting exclusive flood control storage, about three times the river's average annual runoff above Sioux City, Iowa, located just downstream of the last reservoir on the mainstem reservoir system.

While issues related to the use of water from the river are complex, it potentially provides a very large water supply for use in Kansas. The history and the hydrological record indicate that the flows of the Missouri River are highly variable experiencing large floods and major droughts in the basin.

Under the Corps 1982 Study, quantification of water availability was simplified through assumptions. The 2015 update also used this simplified assumption. Availability is assumed when Missouri River flows exceeded the navigation and water supply intake structure targets; 41,000 cfs during navigation support season and 15,000 cfs outside of the navigation support season.

The Kansas Aqueduct system was evaluated for water transfer delivery systems of 2,000, 6,000 and 10,000 cfs. It is assumed that construction would occur over a 20-year period. The updated total construction costs for the system found to be the most cost efficient (6,000 cfs transfer capacity) is \$12,231,000,000. The interest during a 20-year construction period is estimated to be \$5,788,000,000 bringing the total investment cost to \$18,019,000,000. Interest during the 20-year construction period was 7.375% in the 1982 study but only 3.5% for the 2015 update.

Assuming the 6,000 cfs diversion rate, the annual costs including operation and maintenance, interest and amortization and energy costs were determined to be \$1,084,161,000. The annual energy costs were estimated to be \$395,000,000, which assumes a total of 8.78 million megawatt hours needed to operate the system annually. The very preliminary estimate of the 2014 delivered water costs is approximately \$450 per acre foot. These costs did not include costs associated with mitigation, legal challenges, or costs to get the water from the terminal reservoir to the field. Rough estimates are that these additions could double the overall cost.

The original Proof of Concept (POC) took place in September 2020 with nearly 6,000 gallons of water being pulled from the Missouri River and delivered to the dry Arkansas River bed. According to the POC, data analysis and a final report from the inter-basin transfer were supposed to be completed. Neither of these items have been submitted to date.

Staff Input: As this topic has received increased media attention, this message presents the opportunity for the KWA to have further discussion.

The Kansas Water Office, along with the Corps of Engineers, led the 2015 review of the potential project to transfer water from the Missouri River to western Kansas. The *Long-Term Vision for the Future of Water Supply in Kansas* included a section to "allow for the transfer of water supplies between basins where feasible and cost effective." As can be seen from the background information, the project outlined in the 1982 Corps of Engineers study, and updated in 2015, was determined to not be viable or cost effective.

We recognize that there are interests that continue to evaluate alternatives to the system as envisioned. No subsequent projected proposal or plan for such transfer has been submitted to date.

Proposed Resolution: The RAC Operations Committee supports the Missouri RAC's request for additional information from GMD3 and the Division of Water Resources as reflected in their message dated November 7, 2022. The RAC Operations Committee encourages the full KWA to engage in a discussion of the need for this information and any related aspect of this topic.

The KWA RAC Operations Committee recommends approval of the proposed resolutions, further discussion, and requests for additional information, as reflected in the messages from the Upper Republican and Missouri RACs.

Legislative Update

Presented by: Victoria Potts

WaterWise Update

Presented by: Weston McCary

BREAK

Meeting will resume soon

Water Conservation Success Stories

Presented by: Shannon Kenyon & Katie Durham

Legislative Update

Presented by: Matt Unruh

Kansas Water Authority Ex Officio Agency Updates

Presented by: Dawn Buehler

Director's Report

Presented by: Connie Owen

New Business

Adjourn

Upcoming Meetings:

- *January 24-25, 2023 – Kansas Water Authority, Topeka*
- *April 19, 2023 – Kansas Water Authority, TBD*
- *June 7, 2023 – Kansas Water Authority, Southwest Kansas (KGS Field Conference)*
- *August 23, 2023 – Kansas Water Authority, TBD*
- *October 18, 2023 – Kansas Water Authority, TBD*
- *December 13, 2023 – Kansas Water Authority, TBD*