

Kansas Water Authority Meeting
Lenexa, Kansas
8:00 a.m. – April 18, 2018
Agenda

<i>Time</i>	<i>Agenda Item</i>	<i>Presenter</i>	<i>KWA Advice</i>	<i>KWA Decision</i>	<i>Page No.</i>
8:00 am	Call to Order/Introductions	Gary Harshberger	--	--	--
8:05 am	Approval of Meeting Minutes	Gary Harshberger		X	2
8:10 am	KWA RAC Committee	Greg Graff		X	4
8:20 am	KWA PWS Committee	Dennis Schwartz			5
8:30 am	Vision Education Implementation	Tracy Streeter	X		
9:00 am	Research Coordination	Dan Devlin	X		6
9:15 am	KWO/KWA Operations				7
9:30 am	Drought Report	Tracy Streeter	X		9
9:50 am	KWA Budget Committee	Katie Mitchell	X		
10:10 am	Legislative Update	Earl Lewis	X		11
10:25 am	BREAK				
10:45 am	Federal Update	Earl Lewis	X		
11:15 am	Regional Advisory Committee Updates				12
11:45 am	KDA-DWR Update				
12:15 pm	LUNCH				
12:45 pm	Director's Report	Tracy Streeter	X		
1:00 pm	New Business				
1:15 pm	Adjourn				

Upcoming Kansas Water Authority Meetings: Aug 22 Dodge City, Boot Hill Casino with potential tour Aug 21

Minutes

KANSAS WATER AUTHORITY Topeka, KS

January 24, 2018

Regular Meeting

CALL TO ORDER: Chairman Gary Harshberger called the **January 24, 2018** Kansas Water Authority meeting to order at **8:01** a.m. at the Ramada Inn, Topeka, KS

MEMBERS PRESENT: Gary Harshberger, Chairman; Mike Armstrong; John Bailey; Mark Fischer; Greg Graff; Randy Hayzlett; Calvin Kissick; Brad Loveless; Karma Mason; Dennis Schwartz; Ted Nighswonger; David Barfield, Rolfe Mandel; Dan Devlin; Robin Jennison; Ed Martinko; John Mitchell; Susan Metzger; Rob Reschke; Sue Schlapp; Tracy Streeter

MEMBERS ABSENT: Alan King; Lynn Wobker; Pat Apple;

APPROVAL OF MINUTES:

Motion No. 01-18-01 It was moved by **Mark Fischer** and seconded by **Greg Graff** the **December 12, 2017** Minutes for the Regular Meeting of the Kansas Water Authority be approved as presented. **Motion carried with no dissenting votes.**

KWA/KWO OPERATIONS:

Clinton Lake Users

Motion No. 01-18-02 It was moved by **Dennis Schwartz** and seconded by **Karma Mason** to authorize the Director of the Kansas Water Office to enter into negotiations with the City of Lawrence for a new water marketing contract from Clinton Lake with the understanding that the negotiated contract will not result in a significant impact to the overall water marketing program and its customers.
Motion carried with no dissenting votes.

KWA RAC Committee

Motion No. 01-18-03 It was moved by **Greg Graff** and seconded by **Ted Nighswonger** to approve the application for membership on the Upper Republican RAC from Sue Evans.
Motion carried with no dissenting votes.

Legislative Update

Motion No. 01-18-04 It was moved by Karma Mason and seconded by Mike Armstrong that the KWO Staff shall draft principles on proposed legislation for reviews at the end of the meeting.
Motion carried with no dissenting votes.

SGF/EDIF Projects

Earl Lewis presented

*SWPF/Water Vision Research
Priorities Update*

Dan Devlin presented

Milford RCPP Update

Matt Unruh presented

Federal Activities

It was moved by **Brad Loveless** and seconded by **Dennis Schwartz** to enter into water SMART Grant to be used in the Missouri Region for healthy watersheds.

DIRECTOR'S REPORT: **Tracy Streeter** provided the Director's Report.

NEW BUSINESS:

UPCOMING MEETINGS: April 18, 2018 in Lenexa, KS

Adjournment

The KWA adjourned at **11:27** a.m.

Gary Harshberger, Chairman

Tracy Streeter, Secretary

MEMO



DATE: April 12, 2018
TO: Kansas Water Authority
FROM: Greg Graff
RE: KWA RAC Operations Committee

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Topeka, KS 66612
Phone: (785) 296-3185
Fax: (785) 296-0878
www.kwo.ks.gov

The KWA RAC Operations Committee met on April 6, 2018, via conference call to consider one Regional Advisory Committee (RAC) membership action item. Discussion during the conference call focused on the following topic:

- Upper Smoky Hill Regional Advisory Committee (RAC) Membership Application

The Committee reviewed and discussed the application of Kyle Spencer from Scott City for membership on the Upper Smoky Hill RAC as the At-Large Public (cc) representative. This vacant position currently has a 2021 term expiration date. After discussion the Committee took action to recommend to the KWA that Kyle be appointed to serve in this position.

The KWA RAC Operations Committee recommends KWA approval of the application for membership on the Upper Smoky Hill RAC from Kyle Spencer.

MEMO



DATE: April 18, 2018
TO: Kansas Water Authority
FROM: Dennis Schwartz, Chair, Public Water Supply Committee
Cara Hendricks, P.E.
RE: Public Water Supply Committee Update

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The following summarizes the goals of the KWA Public Water Supply Committee (PWS Committee) with regard to the items presented herein:

Action Items:

- Set the CY 2019 Water Marketing Variable Rate

Informational Items:

- 2018 PWS Comprehensive Capital Development Plan Updates

Water Marketing Program Variable Rate for Calendar Year 2019

At the meeting held on April 13, 2018, the PWS Committee acted to recommend that the KWA set the Calendar Year (CY) 2019 water marketing variable rate at \$0.405/1000 gallons, which is a 3.2% increase from the CY 2018 rate. This rate increase is consistent with the projected water marketing program variable rate included in the previously approved 2017 Public Water Supply Comprehensive Capital Development Plan (CCDP). The 2017 CCDP can be accessed through the “Reservoir” tab at KWO’s website at www.kwo.ks.gov.

The table below indicates the 5-year projected water marketing program variable rate recommended by the PWS Committee, and as included in the 2017 CCDP.

Calendar Year	2017	2018	2019	2020	2021	2022
Variable Rate	\$0.38	\$0.392	\$0.405	\$0.418	\$0.431	\$0.445
Increase	n/a	3.2%	3.2%	3.2%	3.2%	3.2%

The PWS Committee further recommends that a portion of the annual marketing revenue be utilized to pay down debt and to fund reservoir protection and restoration projects as described in the 2017 CCDP.

Based on the PWS Committee action on April 13, 2018, the PWS Committee recommends that the Kansas Water Authority set the CY 2019 Water Marketing variable rate at \$0.405/1000 gallons.

2018 Public Water Supply Program Comprehensive Capital Development Plan (CCDP) Update

The CCDP includes several components that require periodic updating. These include adjustments to O&M costs based on updates provided by the Corps of Engineers, forecasted water use projections based on actual reported use, reflections of debt payments made, and other program changes. An updated 2018 CCDP is anticipated to be provided to the PWS Committee for review sometime later this calendar year.

This item is for information only. No action is needed at this time.

MEMO



Water Office

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DATE: April 18, 2018
TO: Kansas Water Authority
FROM: Earl Lewis
RE: Research Coordination

As previously presented and discussed by the Kansas Water Authority (KWA), a research coordination workgroup has continued to meet to identify priorities for research needed to support implementation of the Vision. No action is being sought at this time.

Efforts focused on the specific areas of research previously identified by the group have continued, which include streambank stabilization effectiveness, irrigation technologies and crop genetic research, and harmful algal blooms. Each of the small research teams focused on these specific research areas are currently working to provide and submit a detailed, specific scope of work and future fiscal year funding recommendations. These will be developed into a short paper for dissemination. If funded, the workgroup plans to provide this information to the Authority at the August KWA meeting for input and approval on research to be implemented.

At the last meeting, the development of a Water Research Newsletter was also discussed, with KWO compiling ongoing water-related research from universities and disseminating the newsletter once a quarter, which could be posted on KWO's website.

No action is needed at this time. Information is provided for discussion purposes only.

MEMO



DATE: April 18th, 2018
TO: Kansas Water Authority
FROM: Earl Lewis, Cara Hendricks
RE: Federal Cooperative Agreements – Streamgaging, Kansas River Water Quality Monitoring, Neosho River Sediment Monitoring, Kansas River Study and Cottonwood/Neosho River Sediment Study

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There are three potential agreements between the KWO and U.S. Geological Survey (USGS) for review and consideration by the Kansas Water Authority (KWA) and two potential Planning Assistance to States (PAS) agreement between the KWO and the Corps of Engineers. Approval by the KWA, under KSA 74-2622, is required before the Kansas Water Office (KWO) enters into agreements with the federal government.

Streamgaging Network (USGS)

The USGS, in cooperation with the KWO and other cooperators, maintains streamgages across the state. Under this Joint Funding Agreement (JFA), funding for the streamgaging program will be provided for FY 2019. Streamgages provide near real-time information about stream and river conditions. This information is used daily by numerous local, state and federal agencies and research entities to plan, protect and conserve water resources.

The non-federal contribution to cover the part of costs necessary to continue operations in FY 2019 will total \$431,282 from the SWPF, we continue to be in discussions with USGS on finding additional funding sources. As a portion of the administration and enforcement costs to the public water supply program, Water Assurance Districts pay for the streamgages that monitor flow in the Assurance Districts and Water Marketing will pay for streamgages that monitor flow within the marketing customers these equal two gages per WAD and Marketing Program. Final agreement will be determined after further discussions with USGS.

Kansas River Water Quality Monitoring (USGS)

Through a Joint Funding Agreement, the USGS, the cities of Topeka, Lawrence, Olathe and Water District No. 1 of Johnson County, will continue the Water Quality Monitoring agreement, the characterization of the sources, frequency and causes of cyanobacteria and associated toxins and taste-and-odor compounds in the Kansas River. This contract includes the operation of water-quality monitors on the Kansas River at De Soto and Wamego, routine sample collection at these 2 sites over a range of hydrologic conditions, event-based sample collection at reservoir outflows, and development of statistical relationships between collected samples and sensor values. This cooperative study will also evaluate the opportunity for an advanced notification system with sufficient lead time to alert water suppliers that use the Kansas River as a source of water supply of changing water quality conditions that may affect treatment processes or cause cyanobacteria-related toxin and taste-and-odor events.

The proposal is being re-scoped and we will provide additional information regarding the scope and funding at the KWA meeting.

Neosho River Sediment Monitoring (USGS)

Through a Joint Funding Agreement, the KWO and USGS will include continued operation of four water quality monitors and suspended sediment sampling at Plymouth, Burlingame Road, Neosho Rapids, and Burlington. The sites at Plymouth, Burlingame Road and Neosho Rapids are used to evaluate the efficacy of streambank stabilization efforts on the Upper Neosho and Cottonwood rivers as well as the overall sediment load entering John Redmond Reservoir. The Burlington site continues to be used to monitor the downstream effects of continued dewatering of the confined disposal facilities from the dredging project and the overall sediment load released from John Redmond Reservoir.

The non-federal contribution to cover the cost of the necessary field and analytical work directly related to this program will not exceed \$100,000 from the KWO in FY2019.

Kansas River Study (Corps PAS)

The U.S. Army Corps of Engineers-Kansas City District has funding available for a Planning Assistance to States (PAS) agreement relative to the Kansas River. The study would cover continued development of a comprehensive Kansas River sediment analysis and transport model, development of a Water Injection Dredging (WID) demonstration and Kansas Basin Drought Planning.

- Kansas River Sediment Analysis and Transport Model (Ongoing effort funded under last FY PAS)
 - Completing additional river cross sections in the river reach from Manhattan to the Missouri River,
 - LiDAR for channel mapping from Manhattan to Kanopolis, and
 - Scenario runs of the transport model
- Tuttle Creek Water Injection Dredging demonstration project in conjunction with the Corps of Engineers Engineering Research and Development Center (ERDC)
 - Collection of sediment cores and surface sediment samples at the lake,
 - Velocity current transects at selected locations within the reservoir,
 - Development of a WID Monitoring Plan, and
 - Communication and outreach with permitting agencies and downstream stakeholders.
- Kansas Basin Drought Planning
 - Development of methodology to estimate reservoir inflows for the 1930's drought period that acceptable to the Corps that can be used in reservoir modeling and drought planning.

KWO is continuing to work with the Corps to refine the scope and project costs. At this time, it is anticipated to be a one-year agreement totaling \$260,000, with KWO providing \$130,000 in cash and work in kind (WIK). Final agreement will be determined after further discussions with the Corps.

Cottonwood/Neosho River Sediment Study (Corps PAS)

The Tulsa District Army Corps of Engineers has funding available for a Planning Assistance to States (PAS) agreement for a study to investigate and evaluate sedimentation in the Upper Neosho Basin, above Burlington, Kansas. This work will include collaboration with the USGS, KBS and KWO. Activities will included:

- Leveraging state-funded streambank stabilization projects,
- Continuous turbidity and streamflow monitoring performed by USGS,
- Bathymetric surveys planned to be collected for Council Grove and Marion reservoirs, and
- Streambank stabilization effectiveness evaluation funded under the Vision Implementation Research.

KWO is continuing to work with the Corps to refine the scope and project costs. Final agreement will be determined after further discussions with the Corps.

The Kansas Water Office recommends KWA give approval to the Director to enter into agreements with U.S. Geological Survey for the Streamgaging Network, Kansas River Water Quality Monitoring, Neosho River Sediment Monitoring, and with the Corps of Engineers for the Kansas River Study, and Cottonwood/Neosho River Sediment Study.

DATE: April 18th, 2018
 TO: Kansas Water Authority
 FROM: Tracy Streeter
 RE: Drought Report

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Drought is once again affecting Kansas. Kansas Water Office (KWO) monitored conditions through February and consulted with the Governor’s Drought Response Team to recommend the Governor take action to notify citizens of the drought conditions. Governor Jeff Colyer, MD issued Executive Order 18-11 on March 13, 2018 declaring drought in all 105 counties of Kansas. Counties were placed in emergency status (28), warning status (29) or watch status (48) based on existing water and soil conditions and wildfire potential as well as forecasted precipitation and temperatures. The county declarations are shown Figure 1.

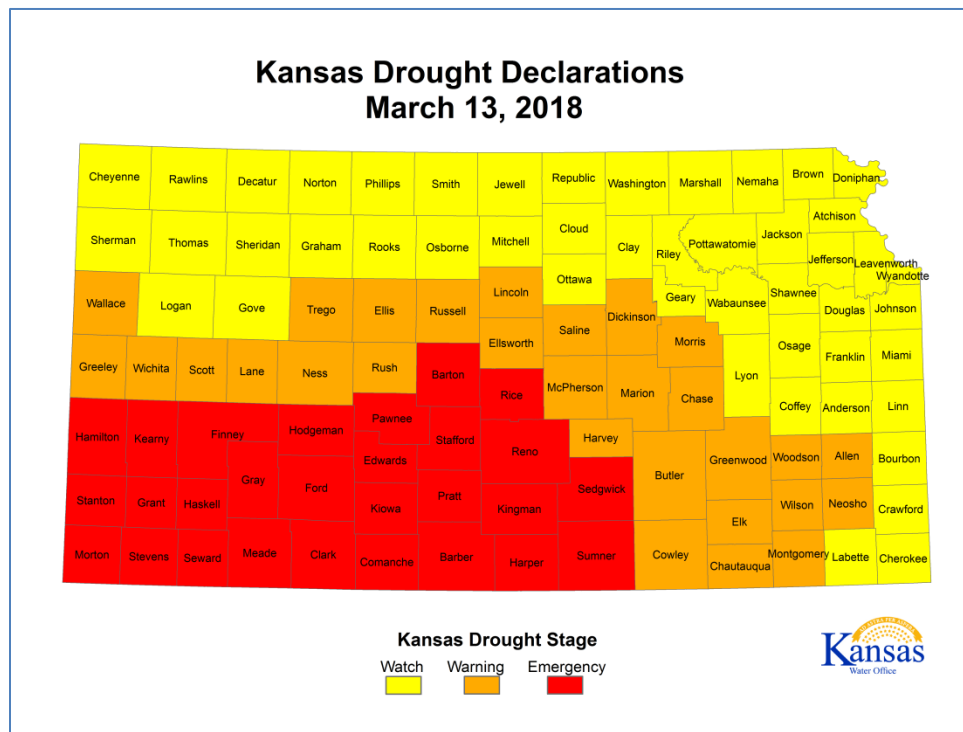


Figure 1. Governor Drought Declarations, EO-18-11

Drought conditions have continued in most of the state and worsened in many areas as moisture deficits increase. This has been due to below normal precipitation as well as above normal temperatures. The USDA National Agricultural Statistic Service reports (April 8th report) topsoil moisture as adequate in only 30% of the state, subsoil moisture adequate in 29%. The remaining soils, the vast majority, are considered very short or short on moisture.

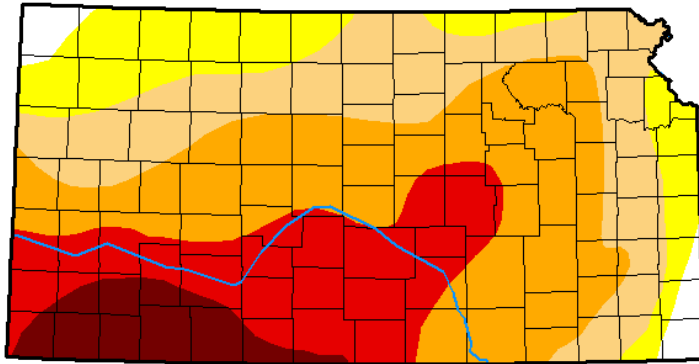
Conditions summarized by the U.S. Drought Monitor for Kansas are shown in Figure 2. Exceptional Drought (D4) has expanded into Kansas from the south over the past two-three weeks. D4 now includes the majority of Haskell, Grant, Morton, Stevens, Seward, Meade and Clark counties as well as portions of Gray, Ford, Comanche and Barber counties.. The Extreme Drought (D3) that has occurred in south west and south central Kansas expanded the week ending April 3rd to the north east as far as Marion County.

U.S. Drought Monitor
Kansas

April 10, 2018
(Released Thursday, Apr. 12, 2018)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2.64	97.36	83.37	59.47	27.06	7.09
Last Week <i>04-03-2018</i>	2.64	97.36	81.66	56.19	25.59	4.32
3 Months Ago <i>01-09-2018</i>	0.00	100.00	52.43	17.23	1.50	0.00
Start of Calendar Year <i>01-02-2018</i>	0.00	100.00	32.70	8.75	0.00	0.00
Start of Water Year <i>09-26-2017</i>	59.89	40.11	10.08	1.35	0.00	0.00
One Year Ago <i>04-11-2017</i>	49.35	50.65	8.55	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

David Miskus
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

Figure 2. Most Recent U.S. Drought Monitor for Kansas

The KWO continues monitoring conditions and posting drought reports on the KWO website <http://www.kwo.ks.gov/reports2/climate-and-drought-monitoring-response>. Reports are being compiled twice a month now that drought conditions have intensified. Additional information, previous reports and information links are also available on the website.

This memo is for informational purposes only. No KWA action necessary

MEMO



DATE: April 18, 2018
TO: Kansas Water Authority
FROM: Earl Lewis
RE: Kansas Legislative Update

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The 2018 session of the Kansas Legislature has been relatively light on water policy issues. Two bills that passed the legislature and may be of interest to the Kansas Water Authority are SB 194 and HB 2691.

SB 194 permits groundwater management district (GMD) boards to increase the maximum water withdrawal charge from \$1.00 for each acre-foot to \$2.00 for each acre-foot. This charge will continue to be used to finance the operations of the GMD.

In addition, the bill eliminates a requirement that permits the boards of GMDs to assess a greater annual water withdrawal charge if more than 50.0 percent of the authorized place of use of the water is outside the district. (This provision had been subject to the maximum charge for groundwater withdrawal.)

HB 2691 changes the deadline to file an application for a multi-year flex account (MYFA) with the Chief Engineer from on or before October 1 to on or before December 31 of the first year of the MYFA term for which the application is being made.

In addition to the two bills that passed, there were a number of other bills that did not successfully move through the process. Those include:

HB 2513 - Surface Water Protection Fees

HB 2528 - State water plan fund and the economic development initiatives fund

HB 2564 - Authorizing the division of water resources to regulate the use of end guns on irrigation systems

HB 2452 - Limiting the duration of certain conservation easements

SB 379 - Establishing a Kansas water law study commission

HB 2665 - Establishing a Kansas water law study commission

HB 2726 - Establishing the non-corn irrigation grant program and the low-water-use crop grant program and authorizing the Kansas water office to issue bonds for the purpose of providing funding to such programs.

HB 2732 - Authorizing the division of conservation of the department of agriculture to create and administer water banks.

More information on these bills can be found on the Kansas Water Office website under [News and Events/Legislative News](#) or on the Kansas Legislature's site at http://www.kslegislature.org/li/b2017_18/measures/bills/.

No action is needed at this time. Information is provided for discussion purposes only.

MEMO



DATE: April 12, 2018
TO: Kansas Water Authority
FROM: Matt Unruh
RE: Regional Advisory Committee Updates

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Regional Goal Action Plan implementation continues to be a priority of all 14 of the Regional Advisory Committees (RAC). The committees continue to engage with stakeholder groups as well as local, state and federal partners to identify methods to advance implementation activities as well as evaluate ways to begin to make progress on action plans where limited activity has taken place up to this point. The following information provides a brief overview of recent activities taking place for all RACs.

Cimarron RAC: Chair Nick Hatcher

The Cimarron RAC has discussed potential ways to improve communication methods within the region and RAC member operated social media. Have been some discussions about having stakeholder led meetings with Oklahoma to discuss water situation and path forward. Has been discussion of ways to create a baseline of conservation that goal progress could be measured against in the future, a producer survey has been developed and ways to get feedback have been debated. Ways to increase producer involvement with the RCPP Advanced Irrigation Management GMD3 grant were had.

Equus-Walnut RAC: Chair Steve Hieger

The Equus-Walnut RAC last met on March 26 in El Dorado where a number of items were discussed, including the City of Wichita's Aquifer Storage and Recovery (ASR). The RAC continues to maintain an interest on this topic and is planning to have a meeting in early May to discuss this proposal and what role or interest the RAC has in provide input to DWR during a public comment period.

The RAC is also actively working to advance regional goal action plan implementation activities on regional goals related to long term public water supply planning, and water use efficiency for irrigation as well as municipal, commercial and industrial water users. The South Central Kansas Water Summit hosted by Wichita State University's Environmental Finance Center in May will be holding a brainstorming session with several different water use groups represented to discuss ongoing water conservation activities as well as incentives for users to implement water efficiency improvements. Planning efforts are also ongoing to establish 2 Water Technology Farms within the Equus-Walnut Region for the 2018 growing season. These farms would both look at technology and water management scenarios which could be utilized to decrease water application resulting in a potentially less saline environment for crop growth during the growing season.

Great Bend Prairie RAC: Chair Berry Bortz

A series of meetings with various agencies, organizations and stakeholder groups have been held over the past few months to consider voluntary incentive based programs such as a Conservation Reserve Enhancement Program (CREP) as a tool to address long term sustainability of water use. At their March 12 meeting, the Great Bend Prairie RAC formally endorsed the development of new voluntary incentive based programs such as a CREP in the proposed Local Enhanced Management Area (LEMA) in the Big Bend Groundwater Management District #5 (GMD5). Other ongoing efforts to reduce pumping

and reach long term sustainable withdrawal levels in the region include the Central Kansas Water Bank, the GMD5 LEMA proposal, and phreatophyte removal along the Arkansas River and Rattlesnake Creek under a Kansas Forest Service project Restoring Arkansas River Water Quality and Quantity.

Efforts continue to keep awareness of other regional issues and needs in front of appropriate agencies. The most recent being the Great Bend Prairie RAC formal suggestion, at their March 12th meeting, to work with the Red Hills and Equus Walnut RACs to develop a presentation for the Kansas Corporation Commission Oil & Gas Advisory Committee to request the development of requirements for tracer lines on salt water disposal pipelines and their addition to Dig-Safe. Because of potential applicability beyond the boundaries of the Great Bend Prairie Regional Planning Area, the general consensus of the RAC is that it would be justified for the saltwater disposal line and public water supply-related goals and associated action plans to be considered as multi-regional or even statewide implementation items.

Kansas RAC: Chair Brad Bradley

The Kansas Regional Advisory Committee held a meeting on April 9th in Topeka. The focus of the meeting was report outs from the three subcommittees that were established after the January meeting. The three subcommittees that were organized are: Finance and Governance, Best Management Practices (BMPs) and the Kansas Basin Water Management (KBWM) system and the last is the Education and Outreach group. Each has met since January and developed some objectives tied back to the RAC Goals. The RAC continues to advocate for following the Blue Ribbon Funding Task Force recommendations for funding the State Water Plan Fund. They would also like to see the transfer of monies from SGF and EDIF to the State Water Plan Fund continued. The RAC is currently developing a power point that can be used by RAC members while making public presentations, which they suggest be made at least one/year by each RAC member. There will also be a presentation from NRCS on programs in the Kansas region, which ties directly back to the Milford Lake Watershed RCPP dealing with one of the RAC's goals on HABs. The BMP subcommittee has been heavily involved from the early stages of the RCPP, offering suggestions to proposals and participating in partner meetings.

Public outreach for this RAC will be very important with current water issues and its geographic location.

Marais des Cygnes RAC: Chair Lori Kuykendall

The Marais des Cygnes RAC, in cooperation with local WRAPS groups, local Conservation Districts, KDHE, and KDA-DOC has begun to plan hosting their own cover crop and no-till field days. Members of the RAC have attended and also help plan local field days. By hosting their own field day the RAC hopes to educate those in the Region on the sedimentation and nutrient reduction benefits of those Best Management Practices (BMPs).

As a way to address other portions of their goals and plans, the Marais des Cygnes RAC is evaluating the demand and water supply within the region that is not served by the mainstem Marais des Cygnes River. The RAC has asked the KWO to assess demand in the Region, as well as where non-federal PWS lakes are located and what population they serve. The KWO is working to complete the list of non-federal PWS lakes and to determine if there are populations within the Region that do not have access to a reliable source of water.

Missouri RAC: Chair Carl Johnson

The Missouri Regional Advisory Committee held their last meeting in Atchison on March 27th. This RAC has formed two subcommittees: Missouri River and Agriculture that reported on the most recent MRRIC meeting and the Ag industry as it is related to improving infrastructure and using rivers to increase the movement of commodities. The focus of the meeting was to see what the different agencies were doing in the Missouri Region. Presentations were given by KDHE, KDWPT, NRCS, KFS, KDA-DOC and KSU Extension. The KDHE talked about load reductions in the region with an emphasis on soil health and biology. There is a Sediment Reduction RCPP that was developed by the Doniphan County Conservation District and is the final stages of review before the contract is signed. KDWPT presented on the Missouri River mitigation sites and their importance to re-establishing river lowland habitat. There are five mitigation properties in the Missouri Region that total 6,095 acres. NRCS presented that from 2015-2017 they had 73 contracts covering 7,318 acres and totaling nearly \$3.3

million. They encouraged involvement in local work groups to help guide practices in the region. KFS presented on their current RCPP and the effects that could have in the Region through streambank and forestry work which ultimately impacts water quality. KDA-DOC presented on the State Water Plan Fund and how much of those dollars is spent in the region. Soil health workshops and assisting in funding of those was stress. A couple well attended workshops have been held in the region with an eye towards a Water Quality Technology Farm. A landowner has been identified and a BOR grant, if funded will help make this a reality. KSU Extension presented on water quality and economics. A good deal of this work had to do with livestock operations in Nemaha County. This county was identified as a potential problem area in a Phase I study of groundwater completed KGS. This study was completed in 2017 and addressed the #1 & #3 goals of the RAC however insufficient information was available. A Phase II of the study has been contracted with KGS with funding secured for the first year.

This RAC made an exceptional effort to reach out to the Conservation Districts in their Region and present at the Annual meetings. With presentations at 4 Annual meetings over 200 individuals received a message on who the MO RAC is and what they are up to. General information about the water resource in the region was presented with hopes of delivering State of the Resource information at future Annual Conservation District meetings.

Neosho RAC: Chair Angela Anderson

The Neosho RAC held their March 5th meeting in Hillsboro where presenters from KDHE, KBS, USGS, and USACE gave an overview of the HAB issue in Kansas, with information specific to Marion Reservoir and review of the work done at Milford Reservoir. Individuals from Grand River Dam Authority (GRDA) also attended the meeting. During the meeting, RAC members, presenters, and GRDA discussed the possibility of collaborating on a study of the HAB issue in the Neosho Region, looking at areas above Marion Reservoir down to Grand Lake in Oklahoma. To further this discussion, GRDA offered to host the Neosho RAC's June meeting at their facility in Langley, OK. In working with two states, state and federal agencies, and the EPA, the RAC hopes to fully study the HAB issue in the Region and find ways to reduce blooms in Marion, as per their goal and action plans.

The Neosho RAC is also planning a Water Quality Technology Farm (WQTF) within the Neosho Region per their goal and action plans. The WQTF will look at ways to improve soil conditions and reduce sediment and nutrient runoff and accumulation in John Redmond Reservoir. The WQTF will incorporate Best Management Practices (BMPs) such as cover crops, no-till, streambank stabilization, etc. On April 5th members of the RAC and KWO met with 3 landowners in the Region to evaluate their land and to discuss the WQTF idea with the landowners. Follow-up will be made with these landowners, as well as with KSU to determine the best locations for a WQTF. Private industries are also being approached to help sponsor the WQTF and to assist with monitoring parameters.

Red Hills RAC: Vice Chair Mark Watts

Red Hills RAC continues to support the pilot produced water project and reuse of produced water; a new regional lake; and encourage water conservation including removal of Eastern Red Cedars. The pilot produced water treatment project has been delayed due to the restructuring of the contracting firm and elevated costs. Local leadership works to define a new regional lake; holding meetings regarding investors, landowner interest, and opportunities to fund the needed studies and construction. The rangeland Regional Conservation Partnership Program (RCPP) project sponsored by the Nature Conservancy addresses a portion of the Conservation Goal, reported an increase in signups this year. The project will run another 2-3 years. The hydrologic evaluation portion of the RCPP project is in the process of identifying willing participants/landowners to try to quantify the change in water resources with removal of eastern red cedar trees and other rangeland management practices.

March 21st, the Red Hills RAC responded to Great Bend Prairie (GBP) RAC motion to include the Red Hills in the GBP salt water disposal lines/water quality goal activities. After much discussion and information sharing the Red Hills RAC did not support the GBP action. Instead the Red Hills RAC supports GBP requesting KCC define the saltwater pipeline leakage issue to determine if the GBP activities are appropriate in the Red Hills region. Interest in facts such as leak locations, degree of problem, quantities not cleaned up under current regulations and other items were indicated.

Smoky Hill-Saline RAC: Chair Martha Tasker

The Smoky Hill RAC's February 2018 meeting focused on Kanopolis Lake's importance to the regional water supply. Information and discussion on pool rise, reallocation, evaporation rates, sedimentation, potential methods to reduce sedimentation, and efficient operations and management lead to interest in hydro suction, the passing through sediment and other techniques to reduce the sediment accumulation and their relative costs.

On the sediment prevention side, locally lead WRAPs projects continue on the Smoky Hill River above and below Kanopolis Lake. Evaluation of water quality above Kanopolis has shown some reductions in sediment and nutrient loads since 2006. Below Kanopolis seven woody revetment projects are being monitored for effectiveness. These are less expensive than traditional revetments and could allow practices be put in place in more streambanks locations.

Solomon-Republican RAC: Chair Donald Hellwig

The Solomon-Republican Advisory Committee held their last meeting in Downs on April 3rd. The focus of the meeting was cover crops with presentations from RMA, NRCS, KDA-DOC and KSU Extension. The RMA presentation dealt with cover crop termination as related to irrigated and non-irrigated land. Also one of the RAC members had direct involvement in adjusting the corn planting deadline to May 31st to qualify for crop insurance. With the amount of surface water irrigation that takes place there is continued anticipation of the completion of the Fort Hays Economic Study on Norton Reservoir, completed shortly. Two of the RAC members are assisting in the formation of the Lower Republican Access District which will allow Jr. water right holders along the Republican River to take advantage of water owed to Kansas by Nebraska from the Republican River Compact. The NRCS presented on soil sampling and several studies that KSU had been conducting, in particular the Nathan Nelson study on cover crops. This is important to this RAC with their involvement in the Milford Lake Watershed RCPP, portions of 3 counties lie within the RAC boundaries. There continues to be a concerted effort to involve local Conservation Districts in the RAC meetings. KDA-DOC talked about the State Water Plan Fund and where money is generated and what agency is using it. Of particular interest was the discussion of the Waconda WRAPS area and the practices that were implemented and the value of those practices. The KSU Extension presentation centered around cover crops as well and how much of Kansas has cover crops planted every year. Most of the work is tied to annual precipitation, economic benefit to the producer and cost of some of the mixtures. Several of the RAC members have been using cover crops for years and had several suggestions: timing of planting, use of seed mixtures and that many producers aren't reporting the use of cover crops. All of this cover crop information ties directly back to the goal of water quality improvement. Public outreach for this RAC is difficult with low attendance at the public meetings that have been held.

Upper Arkansas RAC: Chair Fred Jones

The Upper Arkansas RAC has had recent discussions in regards to industrial water use efficiency gains, CREP acreage limitations and removal of some county acreage limits for the Upper Arkansas River CREP. There have been discussions about the impact of invasive species on Arkansas River flows and the need to support Kansas defending its Arkansas River allocation in the Arkansas River interstate compact. The RAC took a position to support the funding of a Division of Water Resources staff position to work on interstate compact activities, as requested in the Kansas Water Authority 2019 Water Management budget request. A water conservation day was held in Garden City on April 13, updates were given on water reuse efforts by Garden City, a Kansas Health Institute Health Impact Assessment study, and Water Technology Farm updates.

Upper Republican RAC: Chair Sid Metcalf

The Upper Republican RAC has had recent discussions on how to conduct public outreach and the need for education of water users, including how to spread State of the Resource information throughout the region. With the recent passage of the Northwest Kansas Groundwater Management District No. 4 (GMD4) LEMA, the GMD4 has conducted a series of public informational meetings and is providing information to water right holders on how the LEMA will impact them. GMD4 has provided additional funding to the Northwest Kansas Technical College's Water Technology Farms and there has been

continued expansion of the Precision Agriculture program. The program is expanding in 2018 with the addition of a mobile soil and irrigation management laboratory and development of an irrigation research center, which includes a building, pivot irrigation field, and drip irrigation field a couple blocks from the college campus. The Water Technology Farm project here now encompasses 18 fields where Precision Agriculture students can gain in the field experiences using irrigation technology and soil mapping/sampling. With additional funding, participating fields would see additional technologies added and students would gain exposure to more technology options.

Upper Smoky Hill RAC: Chair Shane Mann

The Upper Smoky RAC has had recent discussions about increasing education and public outreach within its area. There has been much progress within the Wichita County area, led by the Wichita County Water Conservation Area group, there are now 19 individual water conservation area agreements which represent around 10% of the irrigated acreage within the county. At the last RAC meeting, representatives of the Wichita County WCA group requested that Local Enhanced Management Areas (LEMA) be discussed at the next Western Kansas Groundwater Management District No. 1 (GMD1) meetings. On March 20th the GMD1 board discussed options for developing a new LEMA plan for the district, and on April 2nd held a standalone LEMA discussion meeting to begin development of the district's next LEMA plan. A high school level educational project has been started in collaboration with 3 high schools within the region. Pilot projects are being developed for water education and an educator seminar is planned for Summer 2018.

Verdigris RAC: Chair John Black

The Verdigris RAC, in effort to put their action plans into motion, is focusing on federal reservoirs, mostly Fall River and Elk City. In their focus, they are working with the KWO and USACE to determine if changes in lake management can adequately extend water supply for the Region, or if additional measures need to be taken to ensure a reliable source of water into the future. To achieve their goals, the RAC is also interested in working with local watershed districts, NRCS, KDA-DOC, and KWO to evaluate the possibility of constructing a new (previously planned) watershed dam above the federal reservoirs to reduce sedimentation and to increase access to water supply. This endeavor could look at using RCPP funds as a way to accomplish this. The RAC is also working with these entities to determine the possibility of rehabilitating PL-566 structures to incorporate water supply in order to create another way to increase access to a reliable water source.

This memo is for informational purposes only. No KWA action necessary
