

Kansas Water Authority

Conference Call/Virtual Meeting April 26, 2021

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CONFERENCE CALL/MEETING AGENDA

<i>Time</i>	<i>Agenda Item</i>	<i>Presenter</i>	<i>KWA Advice</i>	<i>KWA Decision</i>	<i>Page No.</i>
9:00 am	Call to Order/Roll Call	Dawn Buehler	--	--	--
9:05 am	Introductory Comments from the Chair	Dawn Buehler	--	--	--
9:10 am	Approval of Meeting Minutes	Dawn Buehler			
	December 1, 2020 Meeting (Conference Call/GoToMeeting)			X	2
	December 11, 2020 Meeting (Conference Call/GoToMeeting)			X	3
	December 17, 2020 Meeting (Conference Call/GoToMeeting)			X	5
9:15 am	Legislative & Budget Update				
	FY 2022 SWPF Budget Status	Cara Hendricks	X		6
	RAC Informational Budget Webinar Preview	Cara Hendricks	X		6
	House Water Committee Update	Matt Unruh	X		8
10:00 am	KWA RAC Operations Committee	Jeremiah Hobbs			
	RAC Messages	Jeremiah Hobbs		X	11
	RAC Membership	Jeremiah Hobbs		X	11
10:20 am	KWA Public Water Supply Committee Update	John Bailey	X		
	Douglas Co. RWD No. 3 Application & Request to Negotiate	John Bailey		X	13
10:45 am	BREAK				
11:00 am	Vision/Kansas Water Plan Update				
	KWP Update Timeline/Schedule & Status	Kirk Tjelmeland	X		18
	Regional Background Sections Overview	Kirk Tjelmeland	X		18
	Review and Approval of RAC Goals/Action Plans	Kirk Tjelmeland		X	--
11:45 pm	Federal Cooperative Agreements				
	Overview of USGS Cooperative Funding Agreements	Josh Olson	X		25
11:55 am	KWA Annual Calendar for 2021	Connie Owen	X		--
12:05 pm	Director's Report	Connie Owen	X		--
12:20 pm	New Business				
12:30 pm	Adjourn				

Call to Order/Roll Call

Call to Order/Roll Call; *Dawn Buehler*

Introductory Comments from the Chair

Presented by: Dawn Buehler



Minutes

Presented by: Dawn Buehler



Action Needed

Approval of minutes from:

December 1, 2020*

December 11, 2020*

December 17, 2020*

*Webinar/Conference Call

Legislative & Budget Update

Presented by: Cara Hendricks
& Matt Unruh

- FY 2022 SWPF Budget Status
- RAC Informational Budget Webinar Preview
- House Water Committee Update

Legislative & Budget Update

- SWPF FY 2021 & FY 2022 Appropriations
 - Sub HB 2397 for Governor's approval/signature
 - FY 2021 includes various adjustments based on carryforward/lapses and Governor's July 2020 allotments
 - FY 2022 Includes:
 - \$4,005,632 SGF demand transfer
 - \$1,729,264 EDIF demand transfer

FY 2021 & 2022 State Water Plan Fund

State Water Plan Fund

Agency/Program	FY 2021 GOV Recs	FY 2022 KWA Base Recs	FY 2022 KWA Recs Full Restoration	FY 2022 GOV Recs	FY 2022 Conference Committee
Kansas Department of Health and Environment					
Contamination Remediation	\$ 1,090,340	\$ 1,088,301	\$ 1,088,301	\$ 1,088,301	
Nonpoint Source Program	\$ 406,157	\$ 303,208	\$ 303,208	\$ 303,208	
TMDL Initiatives	\$ 340,068	\$ 280,738	\$ 280,738	\$ 280,738	
Harmful Algae Bloom Pilot	\$ 1,148,761	\$ 150,000	\$ 150,000	\$ 450,000	
Watershed Restoration/Protection (WRAPS)	\$ 752,128	\$ 730,884	\$ 1,000,000	\$ 730,884	
Drinking Water Protection Program	\$ 350,000	\$ 650,000	\$ 800,000	\$ 350,000	
Total--KDHE	\$ 4,087,454	\$ 3,203,131	\$ 3,622,247	\$ 3,203,131	\$ -
Kansas Department of Agriculture					
Interstate Water Issues	\$ 685,138	\$ 490,007	\$ 490,007	\$ 473,184	
Subbasin Water Resources Management	\$ 838,906	\$ 608,949	\$ 608,949	\$ 584,023	
Water Use	\$ 136,839	\$ 72,600	\$ 72,600	\$ 72,600	
Water Resources Cost Share	\$ 2,631,243	\$ 2,248,289	\$ 2,248,289	\$ 2,248,289	
Nonpoint Source Pollution Asst.	\$ 2,127,289	\$ 1,857,836	\$ 1,857,836	\$ 1,853,185	
Aid to Conservation Districts	\$ 2,192,637	\$ 1,973,373	\$ 1,973,373	\$ 1,973,373	\$ 250,000
Watershed Dam Construction	\$ 550,000	\$ 550,000	\$ 1,000,000	\$ 550,000	
Water Quality Buffer Initiative	\$ 529,454	\$ 100,000	\$ 100,000	\$ 100,000	
Riparian and Wetland Program	\$ 582,295	\$ 54,024	\$ 54,024	\$ 54,024	
Water Transition Assistance Program/CREP	\$ 454,936	\$ 402,046	\$ 627,046	\$ 396,593	\$ 50,000
Irrigation Technology	\$ 151,224	\$ 200,000	\$ 200,000	\$ 200,000	\$ 50,000

FY 2021 & 2022 State Water Plan Fund

Agency/Program	FY 2021 GOV Recs	FY 2022 KWA Base Recs	FY 2022 KWA Recs Full Restoration	FY 2022 GOV Recs	FY 2022 Conference Committee
Kansas Department of Agriculture (Cont.)					
Crop and Livestock Research	\$ 350,000	\$ 250,000	\$ 250,000	\$ 250,000	
Transfer for KRPI* (Water Supply/Lake Rest.)	\$ 820,177	\$ -	\$ -	\$ -	
Streambank Stabilization	\$ 1,320,700	\$ 794,264	\$ 1,044,264	\$ 794,264	
Total--KDA	\$ 13,370,838	\$ 9,601,388	\$ 10,526,388	\$ 9,549,535	\$ 350,000
Kansas Water Office					
Assessment and Evaluation	\$ 599,177	\$ 658,919	\$ 858,919	\$ 858,919	
MOU - Storage Operations & Maintenance	\$ 586,452	\$ 526,081	\$ 526,081	\$ 526,081	
Stream Gaging	\$ 413,580	\$ 423,130	\$ 423,130	\$ 423,130	
Technical Assistance to Water Users	\$ 341,391	\$ 325,000	\$ 325,000	\$ 325,000	
Vision Education Strategy	\$ 100,000	\$ 125,000	\$ 125,000	\$ 125,000	
Reservoir and Water Quality Research	\$ 402,304	\$ 350,000	\$ 350,000	\$ 350,000	
Water Tech Farms	\$ 79,125	\$ 100,000	\$ 200,000	\$ 200,000	\$ (100,000)
Watershed Conservation Practice Imp	\$ -	\$ 500,000	\$ 1,000,000	\$ 860,000	\$ (310,000)
Equus Beds Chloride Plume Project	\$ 9,141	\$ -	\$ -	\$ -	
Milford Lake Watershed RCPP	\$ 400,000	\$ 200,000	\$ 200,000	\$ 200,000	
Water Injection Dredging (WID)	\$ 150,000	\$ 125,000	\$ 1,500,000	\$ 125,000	\$ 850,000
Flood Response Study	\$ 100,000				
Arbuckle Study	\$ 68,000		\$ 150,000	\$ -	\$ 60,000
Total--KWO	\$ 3,249,170	\$ 3,333,130	\$ 5,658,130	\$ 3,993,130	\$ 500,000

FY 2021 & 2022 State Water Plan

Agency/Program	FY 2021 GOV Recs	FY 2022 KWA Base Recs	FY 2022 KWA Recs Full Restoration	FY 2022 GOV Recs	FY 2022 Conference Committee
Kansas Department of Wildlife, Parks & Tourism					
Aquatic Nuisance Species (ANS) Program	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -
University of Kansas--Geological Survey	\$ 26,841	\$ 26,841	\$ 26,841	\$ 26,841	\$ -
KPERS Reamortization				\$ (36,260)	\$ 36,360
Governor's COLA				\$ 36,014	\$ (36,014)
State Water Plan FY 2022 Funding	\$ 20,734,303	\$ 16,214,490	\$ 19,883,606	\$16,772,391	\$ 850,346
SGF & EDIF Demand Transfers					
State General Fund Transfer	\$ 6,000,000	\$ 4,005,632	\$ 6,000,000	\$ 4,005,632	\$ -
Economic Development Fund Transfer	\$ 913,325	\$ 500,000	\$ 2,000,000	\$ 500,000	\$1,219,264
<i>FY 2021 Governor's Allotment**</i>	<i>\$ (2,407,699)</i>				
Total SGF & EDIF Demand Transfers	\$ 4,505,626	\$ 4,505,632	\$ 8,000,000	\$ 4,505,632	\$1,219,264

FY 2021 & 2022 SWPF Revenue

STATE WATER PLAN FUND REVENUE SOURCE	FY 2021 GOV Recs	FY2022 KWA Base Budget Recs	FY 2022 GOV Recs	FY 2022 Conference Committee
Beginning Balance	\$ 5,558,775	\$ 795,601	\$ 795,601	\$ 795,601
Transfers and Adjustments				
State General Fund Transfer	\$ 6,000,000	\$ 4,005,632	\$ 4,005,632	\$ 4,005,632
Economic Development Fund Transfer	\$ 913,325	\$ 500,000	\$ 500,000	\$ 1,719,264
Release of Prior Year Encumbrance	\$ -	\$ -	\$ -	\$ -
Other Service Charges	\$ 51,482	\$ 51,482	\$ 51,482	\$ 51,482
FY 2021 Governor's Allotment	\$ (2,407,699)	\$ -	\$ -	\$ -
Transfers to SGF - John Redmond Bond	\$ (1,260,426)	\$ (1,260,426)	\$ (1,260,426)	\$ (1,260,426)
SUBTOTAL--Adjustments	\$ 3,296,682	\$ 3,296,688	\$ 3,296,688	\$ 4,515,952
Receipts				
Municipal Water Fees	\$ 3,305,836	\$ 3,174,791	\$ 3,174,791	\$ 3,174,791
Clean Drinking Water Fee Fund	\$ 2,800,000	\$ 2,830,876	\$ 2,830,876	\$ 2,830,876
Industrial Water Fees	\$ 930,000	\$ 916,874	\$ 916,874	\$ 916,874
Stock Water Fees	\$ 350,000	\$ 384,120	\$ 384,120	\$ 384,120
Pesticide Registration Fees	\$ 1,390,000	\$ 1,362,734	\$ 1,362,734	\$ 1,362,734
Fertilizer Registration Fees	\$ 3,638,611	\$ 3,781,386	\$ 3,781,386	\$ 3,781,386
Pollution Fines and Penalties	\$ 230,000	\$ 200,000	\$ 200,000	\$ 200,000
Sand Royalties	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
SUBTOTAL--Receipts	\$ 12,674,447	\$ 12,680,781	\$ 12,680,781	\$ 12,680,781
Total Available	\$ 21,529,904	\$ 16,773,070	\$ 16,773,070	\$ 17,992,334
Less: Expenditures	\$ 20,734,303	\$ 16,214,490	\$ 16,772,391	\$ 17,622,391
Ending Balance	\$ 795,601	\$ 558,580	\$ 679	\$ 369,943

Legislative & Budget Update

Presented by: Cara Hendricks

- RAC Informational Budget Webinar Preview/Discussion

FY 2023 SWPF Budget Process

April

- RAC Informational Budget Webinar for RACs (KWO will coordinate agency participation)
 - Review current SWPF programs/initiatives – agency, purpose/goal, accomplishments

May

- Agencies develop funding requests
 - Vision or RAC Goal Action Items identified
- Agencies convene to develop recommendations to KWA Budget Committee

May-June

- Research Coordination Group meets to develop research funding recommendations
- Recommendations provided to agencies and KWA Budget Committee

June

- KWA Budget Committee meets to develop draft recommendations

June/July

- RAC's review budget recommendations and suggest changes if necessary

July/August

- KWA Budget Committee finalizes recommendations to full Authority
- Full KWA acts on recommendations

September

- KWA SWPF budget recommendations are submitted as part of administration budget process

RAC Information Budget Webinar

Who?

- Provided for all RACs
- Coordinate with agencies
- Will be recorded for future viewing

RAC Information Budget Webinar

What will be provided?

- Review of SWPF FY 2023 budget development timeline and involvement of RACs
- Additional SWPF budget information
 - SWPF expenditure and revenue maps
 - Programs/projects categorized by SWP/Vision categories
 - Tie to KWA KWP Budget Guidelines

RAC Information Budget Webinar

Where/When?

- Webinar will take place via Zoom on
Friday, April 30, 2021
11:00 PM - 12:00 PM (CDT)

<https://zoom.us/j/94042295217?pwd=ZnAvVDI0ZFoveXBsM0dRYkQ5MDVuQT09>

Meeting ID: 940 4229 5217

Passcode: 061671

For Phone Audio:

Dial: 1-346-248-7799 with Meeting ID and Passcode listed above

RAC Information Budget Webinar

Why is the information being provided?

- Provide information in advance of summer RAC meetings (budget recommendations)
- Allow RACs to ask questions, provide feedback on information provided
- Give RACs the information necessary to start looking at how the currently-funded projects/programs line up with their regional goals and action plans

RAC Information Budget Webinar

How will this information be utilized?

- RACs will be asked to answer the following questions:
 1. Which projects/programs are the highest priorities for your region based on your goals/action plans?
 2. What is an appropriate level of funding for those high priority items that will be effective and can be implemented?
 3. Are there actions, projects or programs that your RAC feels should be included that are not, or that are getting too much attention?
- Feedback provided will be summarized and provided to the KWA for consideration as part of the FY 2023 SWPF budget recommendations

Kansas Water Plan Budget Guidelines

Water Plan Funds should be allocated to maximize accomplishing the goals and objectives established by the Kansas Statutes, the Kansas Water Authority and the Regional Advisory Committees. Fundamental to the budget process shall be a prioritization of expenditures that are required to do legally, necessary to implement the Vision/State Water Plan, and discretionary expenditures that can be justified based upon defined benefits.

In particular, budgeted funds should be allocated with the following principles:

- Statutory Obligations shall be met first.
 - For instance, K.S.A. 82a-2101 requires that proceeds from the Clean Drinking Water Fee be allocated by providing not less than 15% to provide on-site technical assistance for public water supply systems, with the remainder being used to renovate and protect lakes which are used directly as a source of water for such public water supply systems
- All budgeted funds should be tied to one of the projects and initiatives established by the 50-year Water Vision/State Water Plan. Allocation of funds should be supported by appropriate metrics and benchmarks, which clearly demonstrate the past (where applicable), current and future benefit of such expenditures.
- Per K.S.A. 82a-951, State Water Plan funding “shall not be used for . . . replacing full-time equivalent positions of any state agency.” Positions have been added for programs to implement the Kansas Water Plan. The Kansas Water Authority should encourage funding for staff positions supporting State Water Plan programs and projects to be from the State General Fund removing any confusion and allowing additional funds to be used for implementation activities.
- Funds raised through fees on specific users, such as K.S.A. 82a-954, K.S.A. 2-1205 and K.S.A. 2-2204 should be used to fund projects or initiatives that benefit the users paying those fees, or mitigate environmental impacts caused by said users, including:
 - Agricultural users
 - Public water supply systems
 - Industrial users
 - Stock watering
- Allocation of funds should be reasonably related to:
 - The source of the funds,
 - Geographical balance (i.e. NE, NW, SE & SW), including consideration for RAC Regional balance
 - Hydrological (ground water vs. surface water) resource balance
 - An equitable mix of rural vs. urban interests.Exceptions will be considered for high-priority or time-sensitive cases requiring significant funding for the implementation of an individual priority project.
- Priority must be given to long term contractual, or multi-year obligations such as:
 - Contracts with the Corps of Engineers for O&M costs of federal reservoirs
 - Bonded indebtedness for projects such as the 15-year bond issue for the 2018 dredging of John Redmond Reservoir
 - Contracts with the USGS for stream gages
- Consideration may be given to projects or initiatives that involve cost shares from other sources, such as Federal, state, local and private funding.
- Consideration may be given to expenditures that can be justified based upon emerging threats to water resources, including appropriate research initiatives.

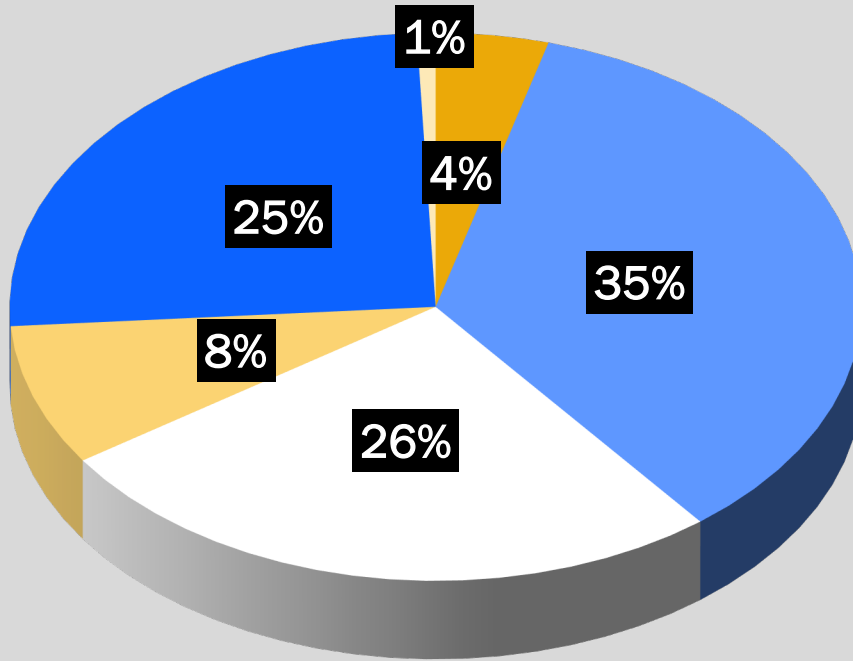
Kansas water Plan fund – Budget category breakdown

- Budget lines assigned to Primary State Water Plan and Vision Categories
- Main Categories:
 - Groundwater Initiatives
 - Reservoir Water Supply and Sedimentation
 - Water Quality
 - Education
- Blend of multiple categories:
 - Groundwater & Water Quality
 - Reservoir & Water Quality
 - Groundwater, Reservoir, & Water Quality

	Budget Category		
	Groundwater Initiatives	Reservoir Water Supply & Sedimentation	Water Quality
Department of Health and Environment			
Contamination Remediation			•
Nonpoint Source Program			•
TMDL Initiatives			•
Harmful Algae Bloom Pilot			•
Watershed Restoration/Protection (WRAPS)			•
Drinking Water Protection Program			•
Department of Agriculture			
Interstate Water Issues	•		•
Subbasin Water Resources Management	•		•
Water Use	•		•
Water Resources Cost Share		•	
Nonpoint Source Pollution Asst.			•
Aid to Conservation Districts		•	•
Watershed Dam Construction		•	
Water Quality Buffer Initiative		•	
Riparian and Wetland Program		•	•
Water Transition Assistance Program/CREP	•		
Irrigation Technology	•		
Crop and Livestock Research	•		
Streambank Stabilization		•	
Water Supply Restoration Program		•	
Kansas Water Office			
Assessment and Evaluation	•	•	•
MOU - Storage Operations & Maintenance		•	
Stream Gaging		•	•
Technical Assistance to Water Users		•	•
Vision Education Strategy	•	•	•
Reservoir and Water Quality Research		•	•
Water Tech Farms	•		
Watershed Conservation Practice Imp		•	
Equus Beds Chloride Plume Project			•
Milford Lake Watershed RCPP			•
University of Kansas--Geological Survey	•		

State Water Plan Expenditures Fy 2015-2019 - Budget Categories

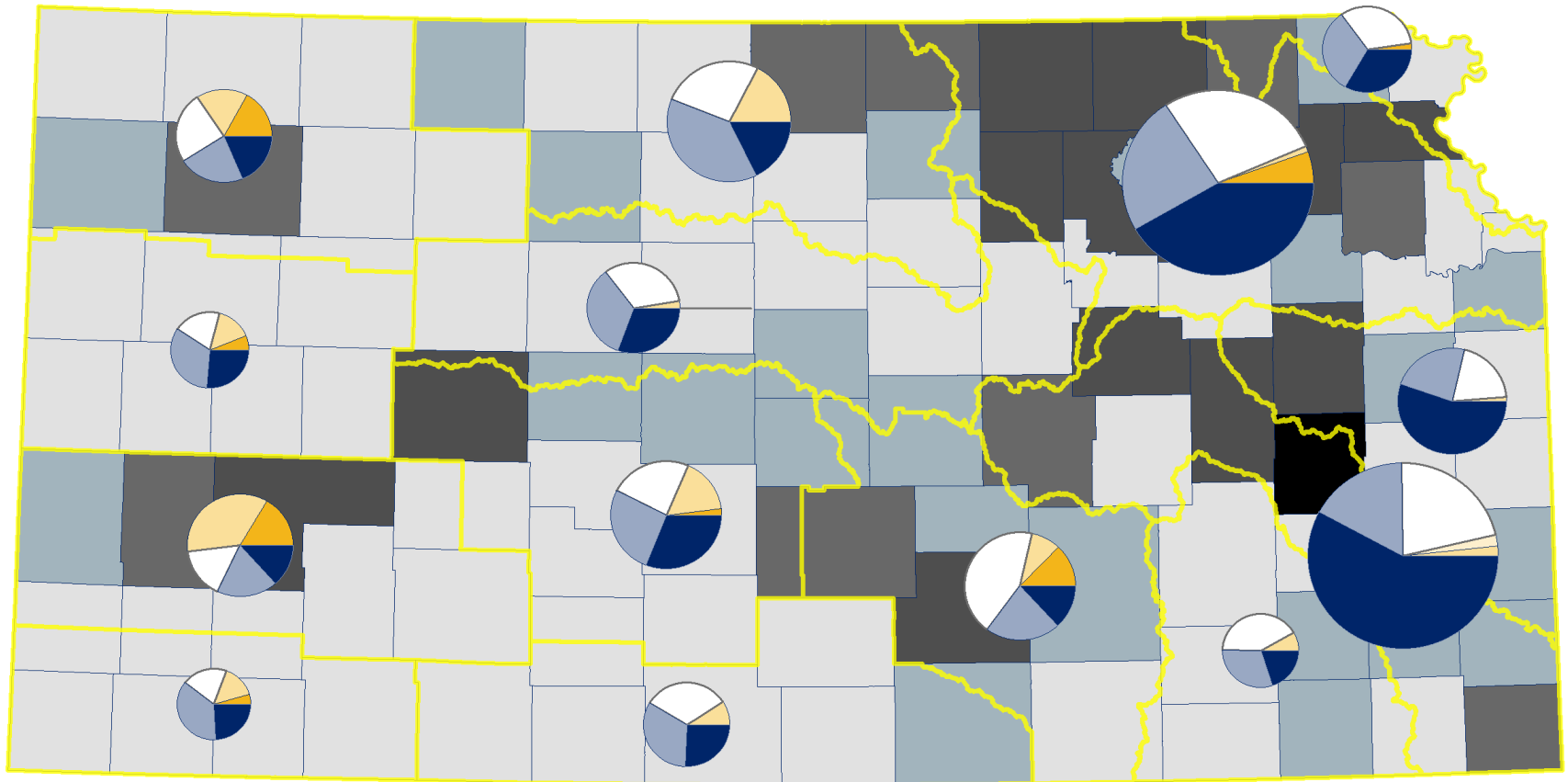
- 1 Groundwater Initiatives (WTF, Wichita ASR)
- 2 Reservoir Water Supply & Sedimentation (O&M, SBS, dredge, study)
- 3 Water Quality
- 4 Groundwater Initiatives & Water Quality
- 5 Reservoir & Water Quality Totals



Total State Water Plan Fund

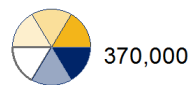
Total State Water Plan Fund		Average FY15-19	Percent Total
1 Groundwater Initiatives (WTF, Wichita ASR)		\$ 576,748	4%
2 Reservoir Water Supply & Sedimentation (O&M, SBS, dredge, study)		\$ 4,734,357	35%
3 Water Quality		\$ 3,536,047	26%
4 Groundwater Initiatives & Water Quality		\$ 1,127,388	8%
5 Reservoir & Water Quality Totals		\$ 3,431,720	25%
6 Groundwater, Reservoir, & Water Quality		\$ 95,773	1%
Totals		\$ 13,502,032	

Average State Water Plan Fund Distribution by Budget Category FY2015 - 2019 Data



Kansas Water Office January 22, 2020

State Water Plan Fund Categories



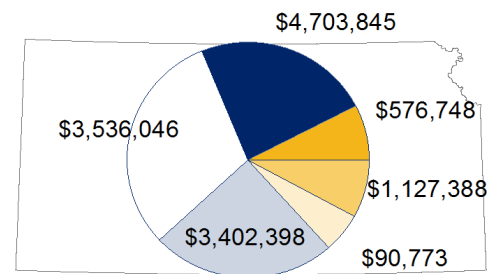
370,000

- Groundwater Initiatives
- Groundwater & Water Quality

- Groundwater, Reservoir, Water Quality
- Water Quality
- Reservoir & Water Quality
- Reservoir Water Supply & Sedimentation

County SWPF Distribution

- \$38,030 - \$100,000
- \$100,000 - \$150,000
- \$150,000 - \$200,000
- \$200,000 - \$500,000
- \$500,000 - \$1,158,000



Sources:
Kansas Dept. of
Agriculture
Kansas Dept. of Health &
Environment
Kansas Water Office
Kansas Dept. of Revenue

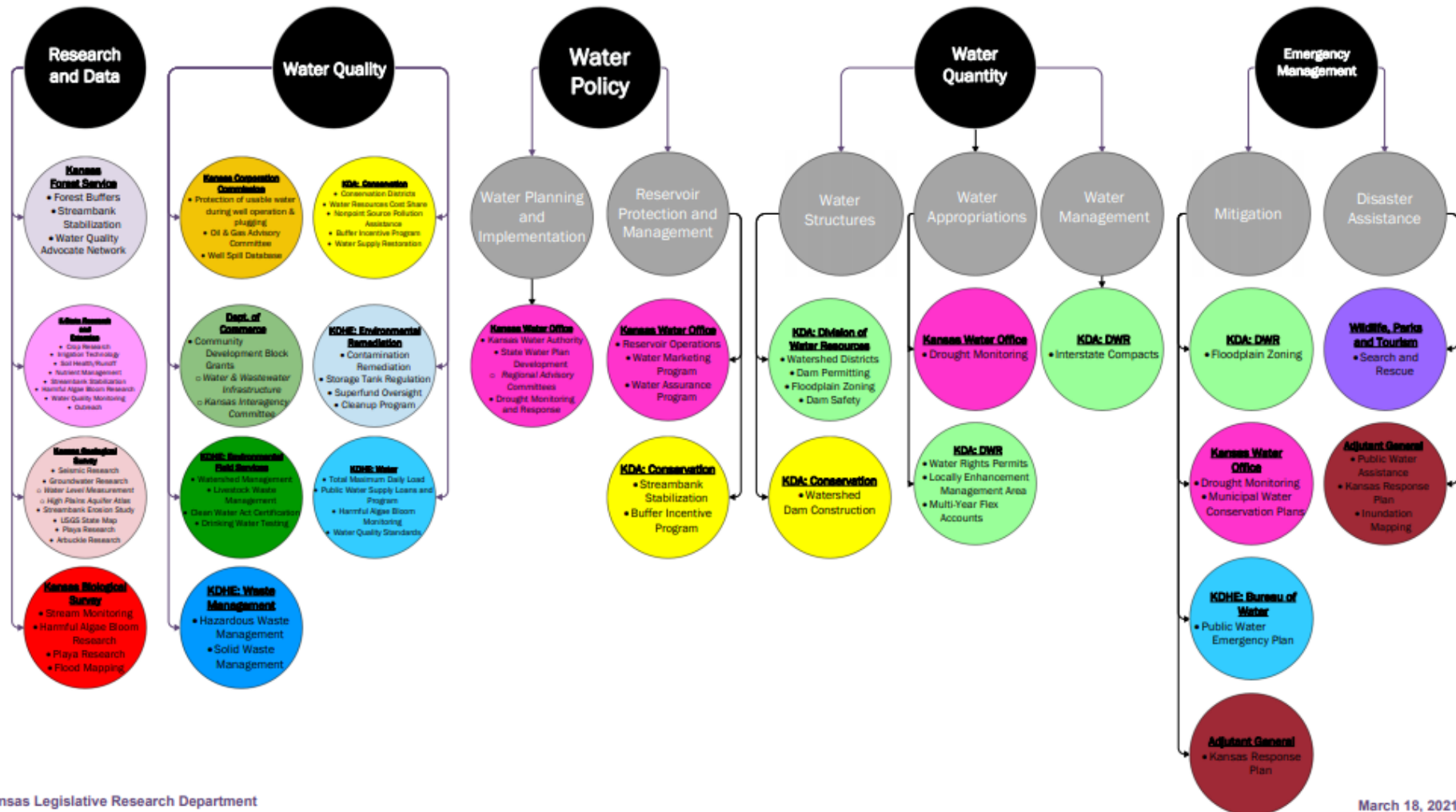
State Water Plan Fund Budget Categories			
Groundwater Initiatives	Water Quality	Reservoir Water Supply & Sedimentation	
Water TAP/CREP (KDA) Irrigation Technology (KDA) Crop and Livestock Research (KDA) Real-Time Water Mgmt - Telemetry (KDA) Water Tech Farms (KWO) Kansas Geological Survey (KGS)			
Interstate Water Issues (KDA) Subbasin Water Resources Management (KDA) Water Use (KDA)			
Vision Education Strategy (KWO) Assessment and Evaluation (KWO)			
	Contamination Remediation (KDHE) Nonpoint Source Program (KDHE) TMDL Initiatives (KDHE) Harmful Algae Bloom Pilot (KDHE) Watershed Restoration/Protection (KDHE) Drinking Water Protection Program (KDHE) Nonpoint Source Pollution Asst. (KDA) Technical Assistance to Water Users (KWO) Equus Beds Chloride Plume Project (KWO) Milford Lake Watershed RCPP (KWO) Arbuckle Study (KWO)		
	Aid to Conservation Districts (KDA) Riparian and Wetland Program (KDA) Stream Gaging (KWO) Reservoir and Water Quality Research (KWO)		
			Water Resources Cost Share (KDA) Watershed Dam Construction (KDA) Water Quality Buffer Initiative (KDA) Streambank Stabilization (KDA) Water Supply Restoration Program (KDA) MOU - Storage Operations & Maintenance (KWO) Watershed Conservation Practice Imp (KWO) Water Injection Dredging (WID) (KWO)

Legislative & Budget Update

Presented by: Matt Unruh

- House Water Committee Update

2021 Kansas Water Organizational Chart



	Water Quality		Quantity & Quality		Water Quantity		Safety and Emergency Management	
Policy and Planning	KWO	State Water Plan Development			KWO	State Water Plan Development	KWO	Water Conservation/Drought Plans
	KDHE-BEFS	Watershed Management			KDA-DWR	Water Appropriation	KDHE-Water	PWS Emergency Plan
							Adj. Gen.	Kansas Emergency Response Plan
Regulation	KDHE-Water	Water Quality Standards TMDLs Public Water Supply Permitting Underground Injection Program * Wastewater Treatment Program *			KDA-DWR	Water Appropriation Water Management * Local Enh. Management Water Conservation Areas Multi-Year Flex Accounts	KDA-DWR	Dam Permitting/Inspection Levee & Floodplain Fill Stream Obstructions Permitting *
	KDHE-BEFS	Local Env. Protection Program Livestock Waste Management Clean Water Act Certification						
	KDHE-Waste	Hazardous Waste Management Solid Waste						
	KDHE-Remed	Storage Tank Regulation						
Cost Share	KDA-DOC	Buffer Strips Non-Point Pollution Asst	KDA-DOC	Aid to Conservation Districts Water Resource Cost Share	KDA-DOC	Water Supply Restoration	KDA-DOC	Watershed Dam Construction
	Commerce	CDBG Grants			KWO	Reservoir Protection Initiative		
	KDHE-BEFS	WQ Restoration (WRAPs)	KFS	Streambank Stabilization				
	KDHE-Water	Revolving Loan Programs						
Implementation & Operation	KDHE-Remed	Contamination Remediation Superfund Sites	KDA-DWR	Interstate Compacts			KDA-DWR	Floodplain Zoning Nat. Flood Insurance Program *
	KCC	Abandoned Oil Well Plugging	KFS	Forest Buffers	KWO	Water Marketing Program Water Assurance Program	KWO	Drought Monitoring Drought Response Team *
	KDHE-BEFS	Drinking Water Protection					Adj. Gen.	PWS Assistance Inundation Mapping
	KDHE-Water	Harmful Algal Bloom Monitoring					KDHE-BEFS	Disaster Response (Water, Waste, Chem) *
Research and Data	KBS	Stream Monitoring Harmful Algal Bloom Research Playa Research	KGS	Arbuckle Study Playa Research	KGS	Groundwater Research Water Level Monitoring Stream Erosion Studies	KBS	Flood Mapping
	KSRE	Harmful Algal Bloom Research Nutrient Management	KBS	Playa Research	KWO	Bathymetric Surveys *	KDA-DWR	Flood Inundation Engineer/Analysis *
	KDHE-Water	Water Quality Sampling * HAB Research & Treatment *	KSRE	Soil Health Research	KSRE	Crop Research Irrigation Technology Streambank Stabilization		
	KDHE-BEFS	Private Water Well Education *			KDA-DWR	Water Use Data *		
	KDWPT	Stream Sampling						

* Added to KLRD Org Chart

Name Changed	
Agency	Program/Activity
KDHE-BEFS	Drinking Water Testing to Drinking Water Protection
KDHE-Water	Public Water Supply Loans to Revolving Loan Programs
KWO	Municipal Water Conservation Plans to Water Conservation/Drought Plans
KDA-DWR	Dam Safety to Dam Permitting/Inspection
KDA-DWR	Water Rights Permitting to Water Appropriation

Not Included	
Agency	Program/Activity
KDHE-Remed	Cleanup Program
KFS	Water Quality Advocate Network
KSRE	Water Quality Monitoring Outreach
KGS	Seismic Research High Plains Aquifer Atlas USGS State Map
KCC	Oil and Gas Advisory Committee Well Spill Database
Commerce	Water & Wastewater Infrastructure Kansas Interagency Committee
KWO	Kansas Water Authority Regional Advisory Committees Reservoir Operations
KDA-DWR	Watershed Districts

Reason Not Included

Covered under Contamination Remediation
Not a primary water management activity
Not a stand alone activity, in support of other research
Not solely a water management activity
Primary purpose is not water research or management
Online document rather than action
Activity that covers general mapping and not simply water
Primary purpose is not water regulation or management
Primary purpose is not water regulation or management
Covered by Community Development Block Grants
Interagency coordination rather than implementation activity
Part of planning rather than independent activity
Part of planning rather than independent activity
Covered by Water Marketing and Water Assurance
Mostly covered by Dam Permitting/Inspection

KWA RAC Operations Committee

Presented by: Jeremiah Hobbs



Action Needed

- RAC Message Response
- New RAC Membership Appointments

KWA RAC Operations Committee

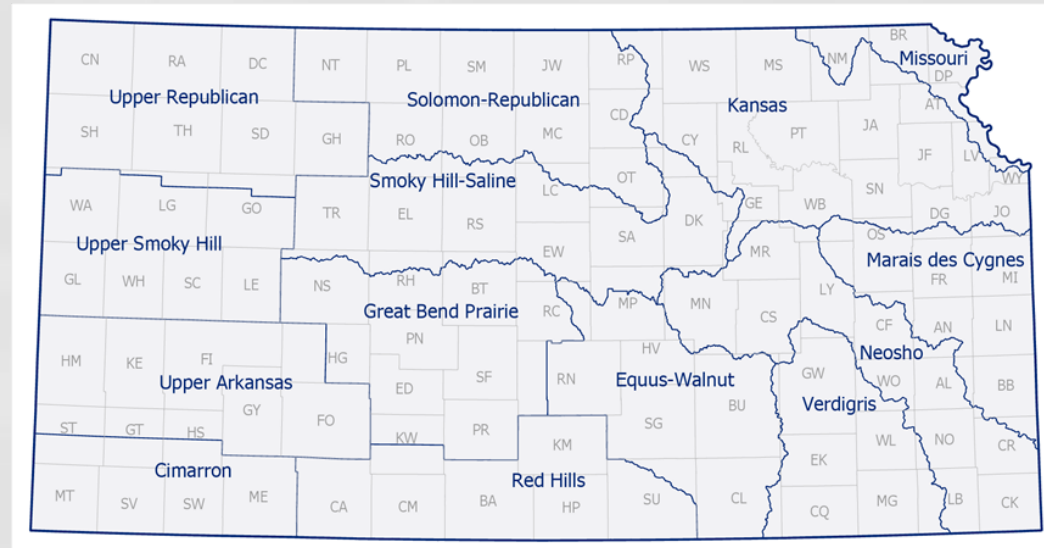
- Chair: Jeremiah Hobbs

- KWA Members:

- David Stroberg

- Allen Roth

- Lynn Goossen



- RAC Advisory Members:

- Fred Jones (Upper Arkansas RAC)

- Lori Kuykendall (Marais des Cygnes RAC)

KWA RAC Operations Committee

● RAC Message to the KWA – Kansas RAC:

Message: Given the complexity and importance of water resources management in the state of Kansas, the Kansas Regional Advisory Committee (RAC) recommends that the Kansas Water Authority (KWA) advocate that, at a minimum, an interim summer session be utilized by the House Water Committee to further study how water is funded and managed in the state of Kansas, and that a standing committee on water is necessary to address the breadth and depth of water issues facing the state. Additionally, the Kansas RAC would like to offer its assistance, as appropriate, to the House Water Committee in its process of learning about water resources management in the state of Kansas and recommends the KWA do so as well.

Background: The Kansas Regional Advisory Committee (RAC) established a Funding and Governance subcommittee that supplies pertinent information to the remainder of the RAC and holds a standing slot on every meeting agenda. This message to the Kansas Water Authority (KWA) concerning assisting the House Water Committee with its endeavor to gain greater understanding of the complex water issues in Kansas was formulated by the Funding and Governance subcommittee, presented at the March 19th RAC meeting, and approved by the RAC.

A new House Water Committee, led by Rep. Ron Highland, was created for the 2021 legislative session. The committee is focused on water issues and has been meeting with various water-related agencies and interest groups to better understand how water resources are managed in the state of Kansas.

Staff Input: Kansas Water Office (KWO) staff have been working with the House Water Committee to present information, as requested, on the agency's structure and role in water resources management in the state of Kansas. On March 23rd Jeremiah Hobbs presented to the House Water Committee on the role of Regional Advisory Committees and where they fit in the water management framework.

Response: The Kansas Water Authority (KWA) will determine if it is supportive of the recommendations of the Kansas RAC, and if so, will contact the House Water Committee to support an interim summer session for further study on water resource management in the state of Kansas, and to offer assistance from the KWA.

KWA RAC Operations Committee

- Membership Applications for Marais des Cygnes, Neosho and Upper Republican RACs

The Committee reviewed and discussed the applications of Susan Hague from Cedar Point for membership on the Neosho RAC, Jared Morrison from Topeka for membership on the Marais des Cygnes as well as Kenneth Sanderson from Goodland for membership on the Upper Republican RAC. The following membership recommendations were approved by the RAC Operations Committee:

- Recommend Susan Hague be considered for the Agriculture (cc) on the Neosho RAC when the 2021 RAC membership drive is completed
- Recommend Jared Morrison for the Water Assurance District position on the Marais des Cygnes RAC with a term expiration of June 2023
- Recommend Kenneth Sanderson for the Conservation/Environment 2 position on the Upper Republican RAC with a term expiration of June 2023

PWS Committee Update

Presented by: John Bailey



Action Needed

- Douglas Co. RWD No. 3 Application
& Request to Negotiate

Douglas Co. RWD No. 3

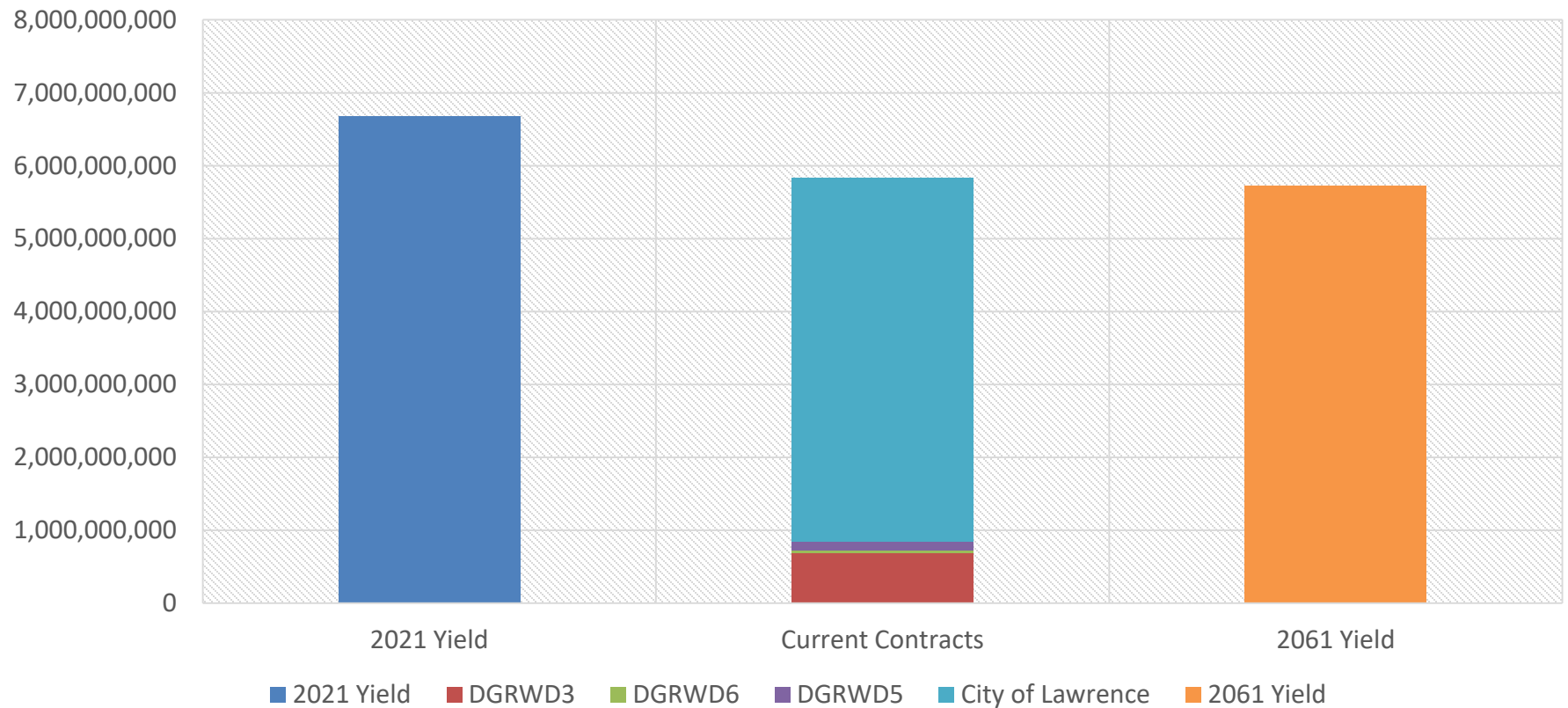
- Current Water Purchase Contract No. 79-1
 - Expires 12/31/21
 - Quantity, 684 MGY
- Request for renewal
 - Application received 3/4/21
 - Request to begin negotiations received 3/4/21
- Preliminary findings
 - Provides information in addition to application content
 - Readily available data from file or limited research

Clinton Lake Marketing Contracts

Contract Number	Customer Name	Contract End Date	2021 Maximum Gallons	2021 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
79-1	Douglas County Rural Water District No. 3	12/13/2021	684,273,174	2,100	684,273,174	2,100
79-2	Douglas County Rural Water District No. 6	12/13/2021	23,759,981	73	23,759,981	73
90-2	Douglas County Rural Water District No. 6	1/1/2031	9,503,298	29	9,503,298	29
95-3	Douglas County Rural Water District No. 5	10/26/2035	128,298,541	394	128,298,541	394
19-1	City of Lawrence	12/29/2059	4,988,000,000	15,308	4,988,000,000	15,308
		Total	5,833,834,994	17,903	5,833,834,994	17,903

Clinton Lake Marketing Contracts and preliminary yield analysis

Clinton Lake - Yield & current obligations



Variables to be determined

- Q/C and finalize yield analysis
 - More robust OASIS model
- DGRWD6 renewal
 - Likely reduced by approx. 10 MGY
- DGRWD5
 - Will be reduced by approx. 100 MGY
- DGRWD3
 - Has not used full current contract
- Term of contract
 - Consider 38 year term to coincide with Lawrence

PWS Committee - Action

- Before negotiations for a contract can begin, the Kansas Water Authority (KWA) must find:
 - That the proposed sale is in the public interest, and
 - That it will advance the purposes of the State Water Planning Act
- *The Public Water Supply Committee recommends the Kansas Water Authority approve the Director's request to begin contract negotiations with Douglas County Rural Water District No. 3*

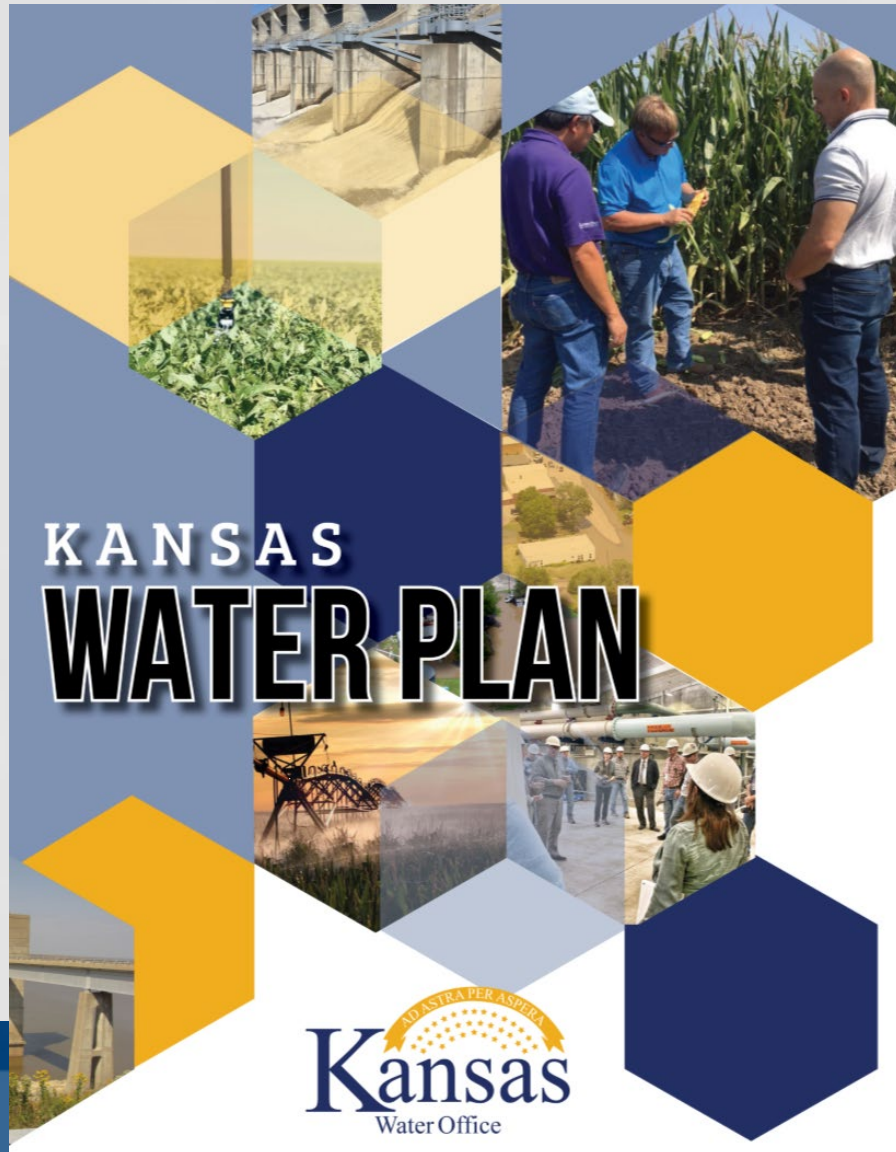
Kansas Water Authority April Meeting

BREAK

** Meeting Resumes at 10:30 am*

Vision/Kansas Water Plan Update

Presented by:
Kirk Tjelmeland



Remaining Timeline

State Water Plan Update Key Planning Dates

Action	KWA Meeting (<i>Est.</i>)	Start or Due Date
KWA Review/Approval of inclusion of Regional Goals/Action Plans within draft Water Plan	April	April KWA Mtg
KWA Review/Approval of inclusion of Guiding Principle Sections within draft Water Plan	May	May KWA Mtg
KWA Approval for KWO to post full draft Water Plan for public review	June	June KWA Mtg
Full Draft Water Plan posted to KWO website for public review		Mid-Late June
Draft Water Plan Public Review/Comment Period		Mid-Late June
Public Hearing Date (East)		Mid-Late July
Public Hearing Date (West)		Mid-Late July
Comments Accepted Beyond Public Hearings		Mid-Late July
Review of comments from public comment period/public hearings and incorporation of comments in draft Water Plan		August KWA Mtg
KWA review and approval of Final State Water Plan	August	August KWA Mtg
Final cleanup work on State Water Plan		--
Updated State Water Plan Posted to KWO Webpage		Mid August

Progress To Date

- Initial drafts of Guiding Principles Sections presented to KWA
 - Conserving & Extending the High Plains Aquifer
 - Securing, Protecting and Restoring our Kansas Reservoirs
 - Improving our State's Water Quality
 - Reducing our Vulnerability to Extreme Events
 - Increasing Awareness of Kansas Water Resources
- Majority of Regional Goal/Action Plan updates presented to KWA
 - *To be presented today:*
 - *Great Bend Prairie RAC Draft Regional Goals/Action Plans*
 - *Missouri RAC Draft Goal #5 and Action Plans*
- KWO drafting of Regional Background Sections
 - Provides regional framework/context for regional goals/action plans

Kansas Water Plan

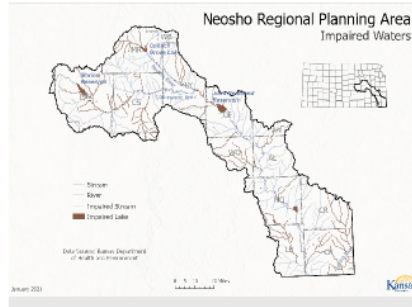
- Regional Planning Areas Section
 - **Regional Planning Areas Overview**
 - **Background**
 - Geography & Hydrology (Map)
 - Water Supply and Water Use (Graphic with supporting text for dominant user groups)
 - Population and Economy
 - Water Quality (maps or tables of key water quality issues)
 - Key Vulnerabilities
 - **Goal 1.**
 - Action Plans
 - **Goal 2.**
 - Action Plans

Regional Background Section Example: Neosho Regional Planning Area

Neosho Region

WATER QUALITY

All three federal reservoirs, and the many streams and tributaries that connect them, are experiencing water quality impairments. The Kansas Department of Health and Environment's (KDHE) most recent list of impaired waters for the state can be found here



Spring River and its tributaries are a valuable biological resource, providing habitat for many unique and some Threatened and Endangered (T&E) species. The Kansas Department of Wildlife, Parks and Tourism (KDWP) maintains the current list of T & E species by county located here. Of particular concern are mussel populations that have declined since the start of heavy metal mining. Due to historic mining activities in the area, these waters are contaminated by lead, zinc, copper and cadmium.

Total Maximum Daily Loads (TMDLs) for these contaminants have been developed for these streams.

HARMFUL ALGAL BLOOMS

Harmful Algal Blooms (HABs) as discussed in the Water Quality section of the State Water Plan have caused pet and livestock deaths however, no human mortalities can be attributed to the toxins created by these bacteria. This worldwide problem has led to significant research on causes, treatments, and prevention of HABs, some of which are being conducted at Marion Reservoir.

Dr. Ted Harris (Kansas Biological Survey) is using lake sediment cores of Marion Reservoir and other water bodies throughout the state to evaluate HAB timing throughout the years since the reservoir was impounded. Since 2000, HABs have occurred more often and the duration has been longer. More information on HABs can be found at the KBS website.



In 2020, 45 waterbodies/zones within the state of Kansas had Harmful Algal Bloom (HAB) advisories.

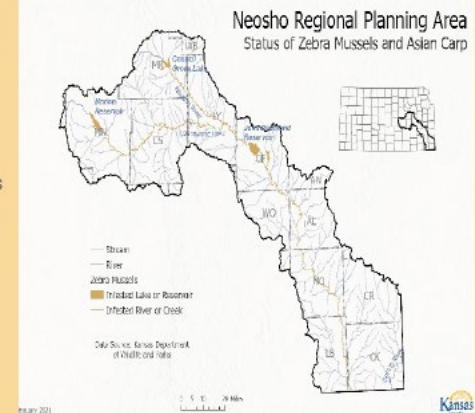
Neosho Region cont.

WATER QUALITY

ANS are non-native species that threaten the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters.

ANS can diminish food supplies and degrade habitat for other species; reduce numbers and variety of desirable fish; reduce fishing, boating, and other recreational activities; lower property values and decrease quality of municipal water sources; foul water lines; clog intakes; burn out pumps; damage power generating facilities; and decrease water system efficiency, as well as increase the risk of flooding due to overcrowded biomass and clogging of lake outlets

Zebra mussels, one of the Aquatic Nuisance Species (ANS) affecting Kansas waters, can cause various issues for water users. Zebra mussels are found in all the federal reservoirs within the Neosho Region, as well as smaller county and Public Water Supply (PWS) lakes. Unfortunately, ANS affect the quality of water and recreational opportunities within the state. More information on ANS and their potential impacts can be found here.



Regional Background Section Example: Neosho Regional Planning Area

PAGE 12

Neosho Region

Regional Goals & Action Plans

ACTION STEPS:

- Stabilize all streambank hotspots, as defined by the Kansas Water Office (KWO), by 2030 in the Cottonwood-Neosho Region above John Redmond Reservoir. The Streambank Team (KDHE, KDA-DOC, and KWO) will secure funding for the stabilization of the streambanks each year to complete reaches in order as they proceed from the reservoir.
- The Streambank Team will evaluate streambank sites after the years with major flooding in the Region.
- A collaboration between the Regional Advisory Committee (RAC), local producers, local WRAPS groups, local conservation districts, regional public water suppliers (PWS), the KWO, the Kansas Department of Health and Environment (KDHE), and the Kansas Department of Agriculture-Division of Conservation (KDA-DOC) will secure funding and work to treat 80% of priority cropland with no-till practices, cover crops, buffer strips, soil health management principles, and other sedimentation and nutrient reduction farming practices by 2030 in the Cottonwood-Neosho Region above John Redmond Reservoir, Marion Reservoir, and Council Grove Reservoir. To provide education and share information concerning water and soil conservation and nutrient and sedimentation reduction, demonstration farms will be established in the region above these three reservoirs using this collaboration.
- The KWO will review the sedimentation rate of these three reservoirs by conducting bathymetric surveys every five years to monitor the sedimentation rate and the progress and benefit of sedimentation reduction practices. The KWO will secure funding for this program.
- The KWO will evaluate the feasibility of possible technologies to remove sediment from the reservoirs in order to maintain and protect water supply.

Priority Goal #1:
Prolong the water supply storage in John Redmond Reservoir to the year 2065 by reducing the sedimentation rate by an average of 300 acre-feet/year.

Measuring success:

Measuring the success Goal 1: The RAC has directed KWO to review the sedimentation rates for the three reservoirs in the Neosho Region. This will be done by conducting bathymetric surveys every 5 years to monitor the change in reservoir capacity due to sedimentation. Currently there are 363 streambank hotspots identified above the 3 reservoirs, 41 have been stabilized. It is estimated to take 15,574,100\$ to complete the remaining 322 sites.

Review/Action Today:

- Review of Regional Goals/Action Plans:
 - Great Bend Prairie RAC Draft Regional Goals/Action Plans
 - Missouri RAC Draft Goal #5 and Action Plans
- Action by the KWA:
 - Approve Updated Regional Goals/Action Plans from all 14 RACs for inclusion within draft State Water Plan

Great Bend Prairie RAC Draft Goals/Action Plans

Priority Goal #1: Achieve water use sustainability within the Great Bend Prairie Regional Planning Area that includes a reasonable raising or lowering of the water table based on average weather conditions.

Action Steps

Short-term Actions

- I. Identify existing voluntary conservation programs and determine if new incentivized conservation programs are needed to compliment current programs.
- II. Work with the appropriate agencies to ensure that cost-shares are current and economically competitive.
- III. Hold stakeholder meetings in conjunction with the appropriate agencies to inform the public about the various programs available.

Long-term Actions

- I. Utilize the KDAMOD* to determine rate of withdrawal from the aquifer from all uses (irrigation, industrial, evapotranspiration, municipal, etc.) versus the rate of recharge to the aquifer from all sources (precipitation, streambank, infiltration, etc.) for the GBP RAC area.
- II. Compile the model data into presentation materials for area stakeholder groups/agencies to identify appropriate management units for further analysis with BBGMDMOD*. This data will analyze the rate of depletion spatially across the area to assist with prioritization of projects and funding.
- III. Coordinate with state agencies & GMD#5 to assess and implement appropriate management controls to bring areas of concern into balance. "

* The Big Bend Groundwater Management District high-resolution hydrologic model (BBGMDMOD) was initially created with seven layers, each representing a geologic formation below the ground surface allowing for analysis of water movement between the layers. KDA-DWR unified the seven layers of the BBGMDMOD to create the KDAMOD for quick water quantity assessments for the region. Both variants are based on the same datasets. BBGMDMOD can track water quality between the geologic formations.

Great Bend Prairie RAC Draft Goals/Action Plans

Priority Goal #2: Developed for Municipalities and Rural Water Districts.

Maintain annual training funds of 15% from Clean Water Drinking Fee and increase technical training support to Public Water Supply (PWS) systems to enhance new technology and increase water efficiently and effectively, thus reducing water loss. Utilize available municipal/residential/commercial "LAWN" irrigation training programs provided by the Irrigation Association.

Actions Steps

- Work with state agencies, cities, rural water districts, and public water suppliers to ensure that the Clean Water Drinking Fee is being appropriately carried out.
- Continue to provide a minimum of 15% and increase more (up to 30%) of Clean Drinking Water Fee for technical assistance by the Kansas Rural Water Association for Public Water Suppliers.
- Work with Irrigation Associations to develop free training opportunities for LAWN irrigators and landscapers.

Great Bend Prairie RAC Draft Goals/Action Plans

Priority Goal #3: Enhance the monitoring of poor quality water to stop and minimize further contamination of fresh water sources. Areas of concern include regions which have salt water disposal lines, disposal wells, high nitrate levels, and areas with high salt sources.

Action Steps

- I. Establish a program if a problem is observed to ensure the problem does not get worse.
- II. Start using mapping techniques and disposal line maintenance and replacement to ensure this goal is met.
- III. Evaluate extent of KDHE surface water monitoring network in petroleum producing areas and areas with high salt sources within Great Bend Prairie Regional Planning Area.
 - a. Work with KDHE to modify surface water monitoring network if evaluation finds that necessary.
- IV. Develop inventory of current active and legacy salt water disposal lines in Great Bend Prairie Regional Planning Area.
- V. Continue programs to evaluate current extent of salt water disposal well inventory.
- VI. Evaluate effectiveness of current spill and escape notification requirements.
 - a. Work with KCC to modify current spill and escape notification requirements if evaluation finds that necessary.
- VII. For all Sensitive Groundwater Areas in the Great Bend Prairie Regional Planning Area:
 - a. Check the integrity of active and known legacy disposal systems.
 - b. Investigate the integrity of plugged abandoned wells suspected of leaking.
 - c. Continued programs to conduct Mechanical Integrity Tests on all injection or disposal wells.
 - d. Develop a routine groundwater quality program to help determine extent and sources of contamination.
- VIII. Educate public in Great Bend Prairie Regional Planning Area about causes and trends of salinity and nitrate issues.

Great Bend Prairie RAC Draft Goals/Action Plans

Priority Goal #4: Initiate research and development of alternative feed sources and less water-intensive crops. Technology transfer from this research would have benefits in areas of Kansas where water is not available for production. Multiple research programs such as plant breeding and livestock feeding should be pursued.

Action Steps

- I. Achieve large scale feeding trials by 2025.
- II. Coordinate with the Kansas Department of Agriculture (KDA) to improved adoptability of feed wheat, along with other alternative crops, through marketing, commodity segregation, research and education as stated within the Vision for the Future of Water Supply in Kansas.
- III. Create a program to be able to roll out small and large scale feeding trials
- IV. Find several feedlots to help roll out program
- V. Utilize membership of stakeholder groups to solicit interest
- VI. Coordinate with KDA to implement demonstration plots for yield evaluation.
- VII. Coordinate with KDA to develop markets for feed wheat and other alternative crops for use feed sources.

Great Bend Prairie RAC Draft Goals/Action Plans

Priority Goal #5: Work towards sustainability of watersheds so that flood control capacity is maintained while maintaining streamflow to meet downstream water needs. Progress towards sustainability would be to have 50% of the drainage area within watershed districts controlled by watershed structures by 2065. Best available information/data will be evaluated every 10 years to track progress towards meeting this goal.

Action Steps

- I. Determine percent controlled by watershed structures within watershed districts in Great Bend Prairie Regional Planning Area.
- II. Work with landowners to promote watershed dams and the important role they have in the community and environment.
- III. Work with watershed boards and community leaders.
- IV. Determine groundwater recharge potential of watershed structures through modeling efforts.
- V. Work with watershed districts to determine costs (needs inventory) associated with building additional structures leading up to 50% of drainage area within districts controlled by structures.
- VI. Evaluate the potential of a Multipurpose Small Lake through KDA-DOC in the Great Bend Prairie Regional Planning Area.

Missouri RAC Draft Goal #5 and Action Plan

Priority Goal #5: Provide insight to the Kansas Water Authority (KWA) on the Missouri river by keeping fully aware of management issues and problems concerning this largely untapped water resource. Over the next 3-5 years secure information from various agencies and groups in the region that provide financial, technical, and planning strategies for flooding issues.

Action Steps

- I. Request semi-annual updates from the United States Army Corp of Engineers (USACE) to secure information on the Public Assistance to States (PAS) agreement between USACE and the states of Iowa, Missouri and Nebraska on Missouri River management as it affects Kansas.
- II. Request state agencies keep the Missouri RAC informed of activities, permits or other actions taking place in the region and submit final results of any projects or demonstrations occurring.
- III. Allow the Missouri River subcommittee time to update the Missouri RAC on pertinent Missouri River information at each RAC meeting:
 - System-wide related meetings or events
- IV. Lobby to hold a Missouri River Recovery Implementation Committee (MRRIC) meeting in Atchison or Leavenworth Kansas by 2025, promoting the importance of the River.
- V. Request updates as needed from the Farm Service Agency (FSA) and Natural Resources Conservation Service (NRCS) on flood recovery programs and progress.
- VI. Request updates from authorities on watershed dams in the Missouri River Region that will affect the Missouri River.
- VII. Remain engaged with the recently formed Missouri River stakeholder group which is part of the PAS study and continue to solicit public comments on River management.
 - Establish a page on the Kansas Water Office website with information and valuable links for the Missouri River system.

Proposed Action Today:

- *Approval by the KWA of incorporation of updated regional goals/actions plans from all 14 RACs into draft State Water Plan*

Future KWA Review/Action:

- May: KWA Review/Approval of inclusion of Guiding Principle Sections within draft Water Plan
- June: KWA Approval for KWO to post full draft Water Plan for public review
- August:
 - Review of comments from public comment period/public hearings and incorporation of comments in draft Water Plan
 - KWA review and approval of Final State Water Plan

Federal Cooperative Agreements - USGS

Presented by: Josh Olson



Streamgaging

- Near real-time, continuous monitoring of stream and river conditions throughout the state
- Flow monitoring at 59 surface water and 3 ground water stations
- Data posted and updated online through the USGS National Water Information System



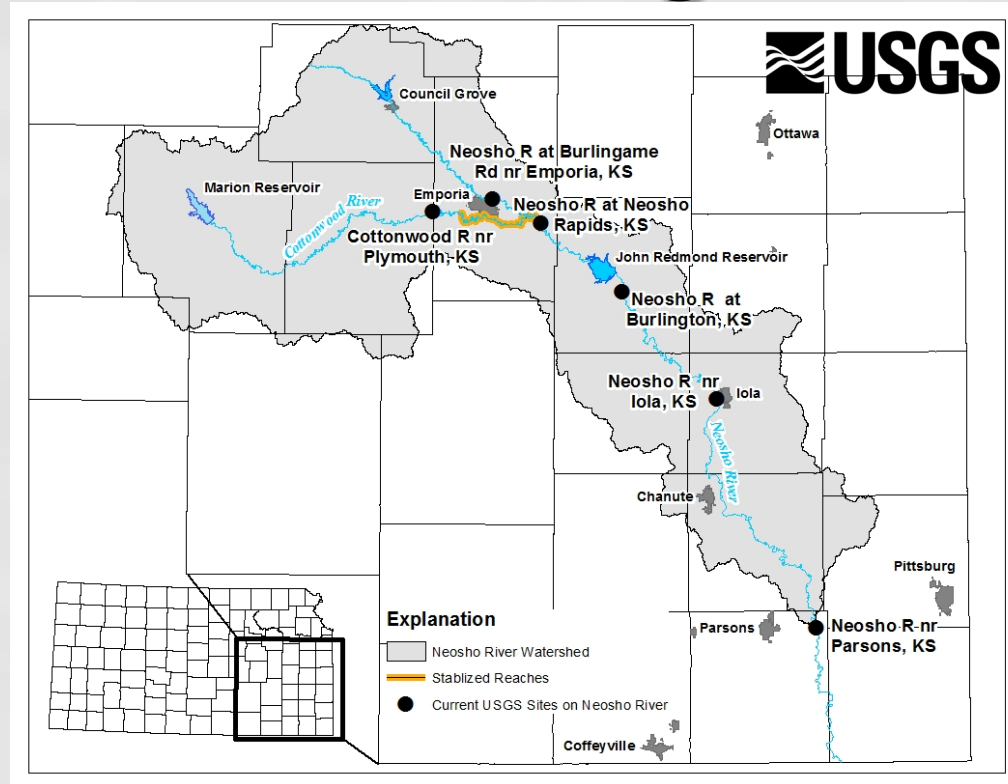
Kansas River Water Quality Monitoring

- Real-time monitoring and notification of changing water-quality conditions
 - Nutrients, sediment, bacteria, cyanobacteria
 - Time of travel study
- Continuous water quality monitoring and discrete sample collection on the Kansas River at Wamego, Topeka, and De Soto
- Current and past partners have included KDHE, The Nature Conservancy, WaterOne, Topeka, Olathe, Manhattan, Lawrence, De Soto, USACE



Neosho River Sediment Monitoring

- Informs evaluation of streambank stabilization effectiveness and sediment load to John Redmond Reservoir
- Water quality monitoring and suspended-sediment sampling
- Funding two monitoring stations
 - Cottonwood River near Plymouth, KS
 - Neosho River at Neosho Rapids, KS
- USGS Scientific Investigations Report: Sediment Flux from Upstream and Through John Redmond Reservoir, East-Central Kansas, 2010–19



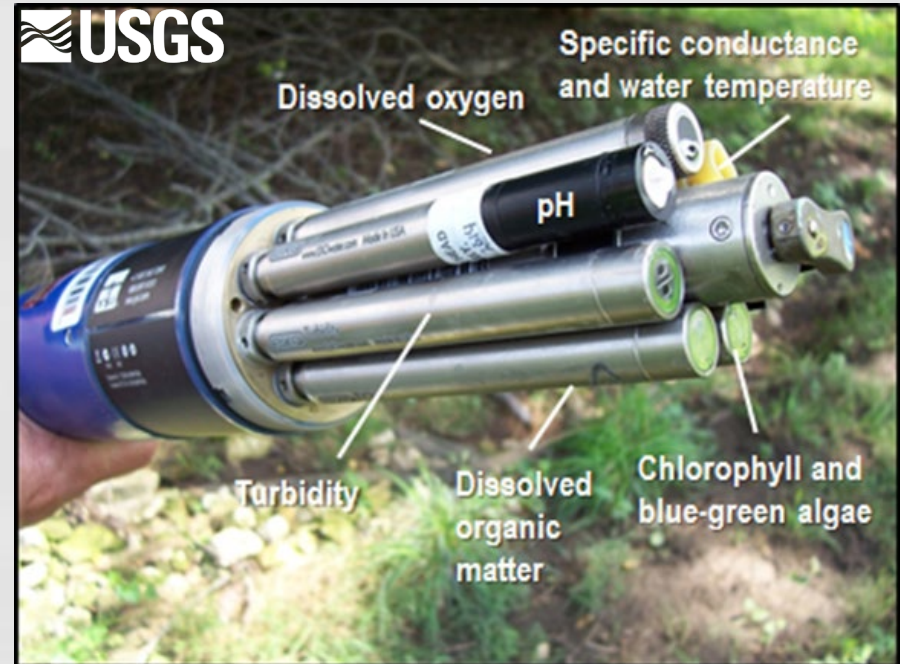
Monitoring Below Tuttle Creek Lake

- Collect baseline turbidity and water quality data downstream of Tuttle Creek Lake and evaluate changes caused by Water Injection Dredging (WID) activities
- Continuous water quality monitoring and discrete suspended-sediment, nutrients, and organic carbon sampling at Big Blue River near Manhattan, KS (06887000)



Republican River at Clay Center Monitoring

- Characterize sediment, nutrients, and water quality conditions entering Milford Lake
- Continuous water quality monitoring and discrete sediment and nutrient sampling at Republican River at Clay Center, KS (06856600)
- Supports monitoring associated with Milford RCPP project



KWA Annual Calendar for 2021

- Future KWA Meeting Scheduling

KWA Meeting Scheduling Info	
Meeting Date	Key Meeting Topics/Actions
April	Review/Approval of Regional Goals/Action Plans for Incorporation into Draft State Water Plan
May	Review/Approval of inclusion of Guiding Principle Sections within draft State Water Plan, KWA Member Introductions
June	Approval for KWO to post full draft State Water Plan for public review, Marketing Rate Approval
August	KWA Approval of State Water Plan, KWA Approval of SWPF FY 23 Budget Recommendations
October	Look ahead into 2022 (meeting calendar included), initial Annual Report Preview
<i>November 17-18, 2021</i>	<i>Governor's Conference</i>
December	Annual Report Approval

- Target week of May 17 for next meeting*

- Pick date now or Doodle Poll?*

Director's Report

- Drought Update
- *Other Agency Updates*

April 20, 2021

(Released Thursday, Apr. 22, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	73.62	26.38	13.29	1.93	0.00	0.00
Last Week 04-13-2021	77.86	22.14	11.95	1.93	0.00	0.00
3 Months Ago 01-19-2021	27.57	72.43	50.33	19.55	10.01	0.00
Start of Calendar Year 12-29-2020	18.58	81.42	59.79	19.69	10.01	0.00
Start of Water Year 09-29-2020	22.82	77.18	16.92	4.42	0.68	0.00
One Year Ago 04-21-2020	77.02	22.98	6.85	2.85	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

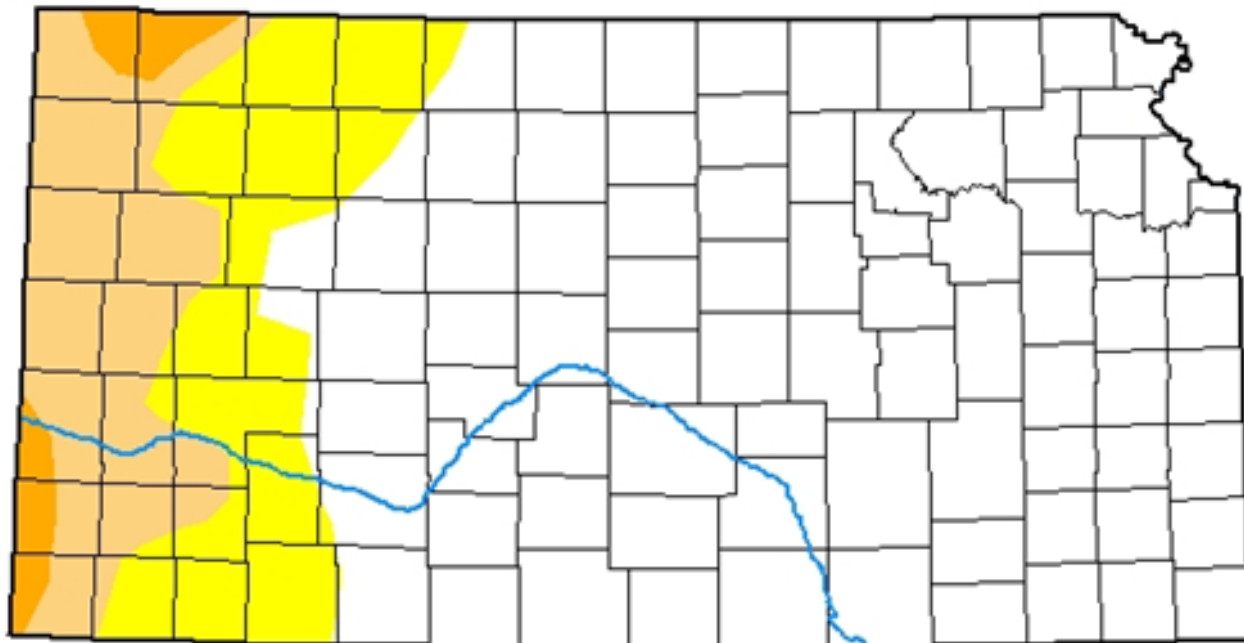
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

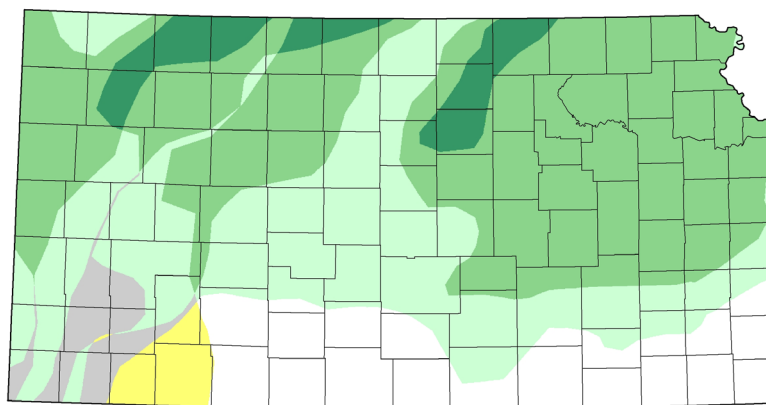
Richard Heim
NCEI/NOAA



droughtmonitor.unl.edu



U.S. Drought Monitor Class Change - Kansas
Start of Calendar Year



April 20, 2021
compared to
December 29, 2020

droughtmonitor.unl.edu



5 Class Degradation
4 Class Degradation
3 Class Degradation
2 Class Degradation
1 Class Degradation
No Change
1 Class Improvement
2 Class Improvement
3 Class Improvement
4 Class Improvement
5 Class Improvement

New Business

- Other items as needed

Adjourn

Upcoming KWA Meeting:

May 2021