

# MEMO



DATE: July 8, 2016  
TO: Missouri RAC Members and Advisors  
FROM: Margaret Fast  
RE: July 14, 2016 Meeting

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The next meeting of the Missouri Regional Advisory Committee will be held on **Thursday, July 14, 2016 at 9:00 a.m. in the USD 409 Community Room, 626 Commercial, Atchison, Kansas.**

The committee will focus on crafting an action plan for the surface water quality goal. Please review the presentations that have been made on surface water in the regions by DWR, KDHE, DP Co, and Water One. (Presentations all posted towards the bottom of the page linked here: <http://www.kwo.org/Regional-Advisory-Committees.html>. The June 2nd meeting notes also note that US Natural Resources Conservation Service (NRCS) and 3 additional conservation district representatives from the region presented information.

Enclosed please find the following meeting materials:

- Agenda
- June 2 Meeting Notes
- Draft Surface Water Action Plan
- Missouri Regional Goals

If you have any questions or need additional information prior to the meeting, feel free to contact me at [Margaret.fast@kwo.ks.gov](mailto:Margaret.fast@kwo.ks.gov) or give me a call at 785/296-0865.

**Meeting Agenda**  
**Missouri Regional Advisory Committee**  
**July 14, 2016, 9:00 a.m.**  
**USD 409 Meeting Room**  
**626 Commercial**  
**Atchison, Kansas**

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**1. Welcome/Introduction**

**2. Review Of June 2 Meeting Notes**

**3. Public Comments\***

**4. Surface Water Quality Goal Action Plan Development**

To ensure a **reliable surface water supply** in the future, best management practices will be implemented so surface water quality in identified drainages is maintained or improved using goals and milestones as identified in the Missouri Watershed Restoration and Protection area 9 Element Plan.

**5. Next steps**

**6. RAC member updates**

**7. Next Meetings:**

- a. RAC meeting – August 11 (scheduled)
- b. RAC meeting – September - TBD
- c. Next KWA meeting: August 31-Sept 1, Emporia

\*These reports are limited to 3-5 minutes.



# Missouri Regional Advisory Committee Meeting Notes

DRAFT

Missouri Regional Advisory Committee Meeting  
June 2, 2016, 9:00 am  
USD 409 Meeting Room  
Atchison, Kansas

## Members Attendance:

Name	City	Category	Term	Present
Carl Johnson (Chair)	Leavenworth, KS	Conservation/Environment (cc)	2019	Yes
John Bishop	Atchison, KS	Recreation	2019	Yes
Neil Coufal	Troy, KS	At Large Public (cc)	2017	Yes
Stephen Glaser	Atchison, KS	Industry/Commerce (cc)	2019	Yes
Jeffrey Grossenbacher	Bern, KS	Agriculture (cc)	2019	Yes
Carol Hughes	Seneca, KS	WRAPs	2017	Yes
Alan Kelley	White Cloud, KS	Iowa Tribe of Kansas and NB	2019	No
Joel Mahnken	Leavenworth, KS	Public Water Supply (cc)	2017	Yes
Brett Neibling	Highland, KS	Agriculture 2	2019	Yes
Darcy Nightingale	Hiawatha, KS	Agriculture Industry	2017	Yes
Bill Shroyer	Sabetha, KS	Public Water Supply 2	2019	Yes
Luke Terry	Robinson, KS	Fish and Wildlife	2017	No
Michelle Wirth	Kansas City, KS	Public Water Supply 3	2017	Yes

## Others in attendance:

Name	Town	Representing
Jim Krueger	Abilene	Ks Association of Conservation Districts
Barb Oltjen	Robinson	Wolf River Watershed/SAKW
Chris Griffin	Troy	DP Co Conservation District
Jerry Wooley	Leavenworth	LV Co Conservation District
Dana Schmelzle	Seneca	Nemaha Co Conservation District
Niki Tollefson	Hiawatha	Brown Co Conservation District
Judy Wegener-Stevens	Troy	DP Co Conservation District
Jake Geiger	Robinson	Self
Ryan Falk	Atchison	Atchison Globe
Bruce Wells	Salina	Natural Resources Conservation Service
Brett Bunger	Topeka	KDA-DWR
Michelle Probasco	Topeka	Ks Department of Health and Environment
Travis Daneke	Topeka	Ks Department of Health and Environment
Rob Reschke	Manhattan	KS Dept. of Ag, Division of Conservation
Margaret Fast	Topeka	KWO

## Welcome and Introductions:

Carl asked those in attendance to introduce themselves.

## Approval of May 12 Meeting Notes:

The notes were approved as sent.

**Membership:** Carl Johnson, Chair, Leavenworth, KS; John Bishop, Atchison, KS; Neil Coufal, Troy, KS; Stephen Glaser, Atchison, KS; Jeffery Grossenbacher, Bern, KS; Carol Hughes, Seneca, KS; Alan Kelley, White Cloud, KS; Joel Mahnken, Leavenworth, KS; Brett Neibling, Highland, KS; Darcy Nightingale, Hiawatha, KS; Bill Shroyer, Sabetha, KS; Luke Terry, Robinson, KS; Michelle Wirth, Kansas City, KS  
**KWO Planner:** Margaret Fast, 785-296-3185; [margaret.fast@kwo.ks.gov](mailto:margaret.fast@kwo.ks.gov)

## Public Comments:

There were none.

## Groundwater Quantity and Quality Action Plan:

The Goal Action Plan included in the mailing was essentially the same as what the committee approved at the May 12 meeting, with the addition of formatting. Carol moved, and John seconded, that the Groundwater Quality and Quantity Goal Action plan be approved. Motion carried unanimously.

## Surface Water Quality Goal Action Plan Development

The main body of the meeting was hearing from the KDHE about known surface water quality concerns, several conservation districts in the region, and the federal Natural Resources Conservation Service about their programs that provide cost share assistance on the installation of best management practices. This is to begin the development of an action plan addressing the Goal:

To ensure a reliable surface water supply in the future, best management practices will be implemented so surface water quality in identified drainages is maintained or improved using goals and milestones as identified in the Missouri Watershed Restoration and Protection area 9 Element Plan.

## Background Information

Michelle Probasco, Kansas Department of Health and Environment (KDHE) reviewed the following process:

- Use Attainability Analysis (UAA) which defines the beneficial uses of a water body
- Designated Uses – are assigned based on the UAA
- Kansas Surface Water Register lists designated uses of classified streams and lakes.
- Surface water quality standards are applied to a classified water body based on the specific designated uses
- Every 2 years, KDHE's routine monitoring data is assessed against the designated uses water quality standard to determine if an impairment exists. This is the 303(d) list of impaired waters. The impaired waters are prioritized as high, medium and low.
- Total Maximum Daily Loads (TMDL) are developed to determine sources of impairment and a load reduction necessary to meet the standard. This has been done in the region for several high priority impairments.
- TMDLs have been developed for some lakes and stream segments in the region. The designated uses that are impaired are aquatic life, recreation and water supply
- The Missouri Watershed Restoration and Protection Strategy (WRAPS) 9 element plan contains water quality load reduction milestones based on those TMDLS.
- The state's current TMDL vision is focused on nutrient reduction, specifically phosphorus in 16 major watersheds. None of those are in the Missouri Region.

The full presentation can be found on the KWO web site <http://www.kwo.org/Regional-Advisory-Committees.html>

Chris Griffin, Doniphan County Conservation district, reviewed the partnerships, roles, funding, and programs of the district. She reported on the county's projects that are funded through WRAPS, Division of Conservation, KDA, and the NRCS. The district provides administrative assistance to both the Natural Resources Conservation service and the Missouri River Basin WRAPS. Each project is ranked according to a set of criteria meant to protect water quality. Each program has a designated cost share percentage and per project limit established by the county. She also reported on the district's outreach activities with schools, producers and the general public. Chris also reported for Atchison County, which has the same programs but difference percentage and cost share limit. The full presentation can be found on the KWO web site <http://www.kwo.org/Regional-Advisory-Committees.html>

Jerry Wooley, Leavenworth County; Dana Schmelzle, Nemaha County; and Niki Tollefson, Brown county conservation districts, also commented on their counties' cost share rates and limits and public outreach activities.

Jim Krueger, Kansas Association of Conservation districts, summarized the presentation as:

- The counties prioritize where cost share goes
- There are limits on cost share because there is not enough funding.

Bruce Wells, US Natural Resource Conservation Service, commented on the agencies programs, funding pools and priorities. He also mentioned the watershed program still exists and can be used to rehab structures to add water supply as a result of the 2014 Farm bill.

Michelle Wirth, Water One and member of the committee, gave a presentation on issues related to water quality in the Missouri River from a water treatment perspective. She reviewed Water Ones facilities on the Missouri and Kansas rivers, the challenges with the extreme weather changes they experience, and a project they are preparing to install to add ozone as a disinfectant and to remove taste and odor and algal toxins. She commented that ranges in turbidity vary the most and treating at the source could be beneficial. The full presentation can be found on the KWO web site <http://www.kwo.org/Regional-Advisory-Committees.html>

### Next Steps

Carl led the discussion on the next steps to development of an action plan. Does the committee need more information on anything? One item raised was the issue of head cuts and streambank erosion. The biology of the water bodies in region was also mentioned. The difference between point and nonpoint sources of pollution was mentioned; the emphasis will be on nonpoint. A question about combined sewers as an issue was raised. It was noted that both Atchison and KCMO have orders from either KDHE or EPA to remedy the situation.

Some other questions were how to prioritize where the limited dollars go for the best improvement. Is more monitoring needed? Is there more information needed on tile outlet terraces? Is there anything needed to be known about extreme events impacts? Are there other best management practices that could be evaluated? At the previous meeting the idea of capturing and reusing water and the associated chemicals on a producer's property was suggested. How much additional funding is needed? Should we recommend a pilot project? Urban lawns often get a higher application rate than farm fields – education is critical. The tradeoff of keeping soil from the river that can cause more degradation was mentioned.

Bill Shroyer mentioned there is a real need for trained water treatment operators.

Carl summarized that he and Margaret would work together on drafting a straw man of the action plan that could be discussed at the next meeting.

### **RAC Member Reports:**

Carl reviewed items from the KWA meeting including Ogallala recharge, Water Technology Farms (WTF) and the Locally Enhanced Management Areas. (LEMA).

Michelle and Joel commented on the need to look at water treatment operator as a career path.

Brett highlighted the need to continue to evaluate the economics of the issues and the solutions.

Neil expressed concern that holding more water back could reduce the amount of water in the river.

Jeff suggested talking to Highland College about education opportunities.



## Missouri Regional Advisory Committee Meeting Notes

### Next Meeting

RAC Meetings - July 14, 9:00 am, Atchison, USD 409 Community Room  
-August 11, 9:00 am, Atchison, USD 409 Community Room

KWA Meeting – August 31-Sept 1, Emporia

DRAFT

**Membership:** Carl Johnson, Chair, Leavenworth, KS; John Bishop, Atchison, KS; Neil Coufal, Troy, KS; Stephen Glaser, Atchison, KS; Jeffery Grossenbacher, Bern, KS; Carol Hughes, Seneca, KS; Alan Kelley, White Cloud, KS; Joel Mahnken, Leavenworth, KS; Brett Neibling, Highland, KS; Darcy Nightingale, Hiawatha, KS; Bill Shroyer, Sabetha, KS; Luke Terry, Robinson, KS; Michelle Wirth, Kansas City, KS  
**KWO Planner:** Margaret Fast, 785-296-3185; [margaret.fast@kwo.ks.gov](mailto:margaret.fast@kwo.ks.gov)

**Missouri Region Goal Action Plan**  
**Surface Water Quality**  
**For discussion with Regional Advisory Committee**  
**July 14, 2016**

**Regional Goals as adopted by the Kansas Water Authority, August 2015**

**Guiding Principle:**

*Over the next 50 years, there needs to be an adequate, sustainable and affordable quality water supply in the Missouri Region, while protecting Tribal water rights and sacred and cultural sites. All government agencies, local through state, shall vigorously uphold and enforce all water conservation and management rules and regulations throughout the state.*

**Goal:**

To ensure a reliable surface water supply in the future, best management practices will be implemented so surface water quality in identified drainages is maintained or improved using goals and milestones as identified in the Missouri Watershed Restoration and Protection area 9 Element Plan.

**Actions:**

**Collection of additional information**

- Collect data with the assistance of Conservation Districts, WRAPS, NRCS and other existing agencies to evaluate the feasibility and possible benefits of wetland/tile outlet systems within the Missouri River Basin area.
- Include the possibility of funding for sediment removal in ponds, and streambank stabilization projects. Trade off of sediment reduction and river
- Evaluate the feasibility of a pilot project to capture and reuse water on a producer's property.
- Assess need to raise awareness about water quality and the importance of proper urban lawn application.
- Is there a need to better understand the indirect, yet unquantified, relationship between sediment loading and biological integrity? Among other factors affecting the biological integrity of the streams found in the sampling is elevated levels of nitrates.
- Gather existing information on the impact of extreme events on water quality and availability into the future.

**Implementation**

- Focus on finding local champions that are willing to adopt and promote new practices, including streambank stabilization.
- Ensure requirement for practices maintenance is understood to allow structural improvements like buffer strips, sedimentation basins, terraces, wetland and even streambank stabilization to have the long term effects.
- Recognize the value of protection – focus on programs that keep the soil on the fields, the streambanks protected with riparian vegetation, and the agricultural wastes incorporated back into the soil. "Take care of the soil (and water) and the soil (and water) will take care of you."
- Prevent sedimentation by using existing cost share programs such as the Division of Conservation, WRAPS, and NRCS, to fund grade stabilization projects, basins and cover crops in the MRB area.
- Explore the possibility of Pilot projects

**Monitoring**

- Determine if additional monitoring sites are needed to better characterize and prioritize project priorities.

## **Funding Needs**

- To ensure water quality is maintained and improved, the state should fully fund the Kansas Water Plan so the implementation of best management practices through programs of the Kansas Department of Agriculture, Division of Conservation; Kansas Dept. of Health and Environment; and others as needed.
- Ensure continued and improved coordination with the NRCS to access and make the best use of funding for priority projects for water quality protection in the region.
- Assess possible involvement of other agencies such as KFS and KWDPT. Interact with other entities and interest groups such as watershed districts, KLA, Nature Conservancy etc., to assess interest and possible funding of innovative projects.

## **Impacts on PWS**

- Challenges
  - Surface/GW interaction – nitrates
  - Missouri River Turbidity
  - Weather Extremes
  - Taste and Odor
- Potential Actions
  - Reduction of inflow – sediment and nutrient
  - Interconnections
  - Trained operators

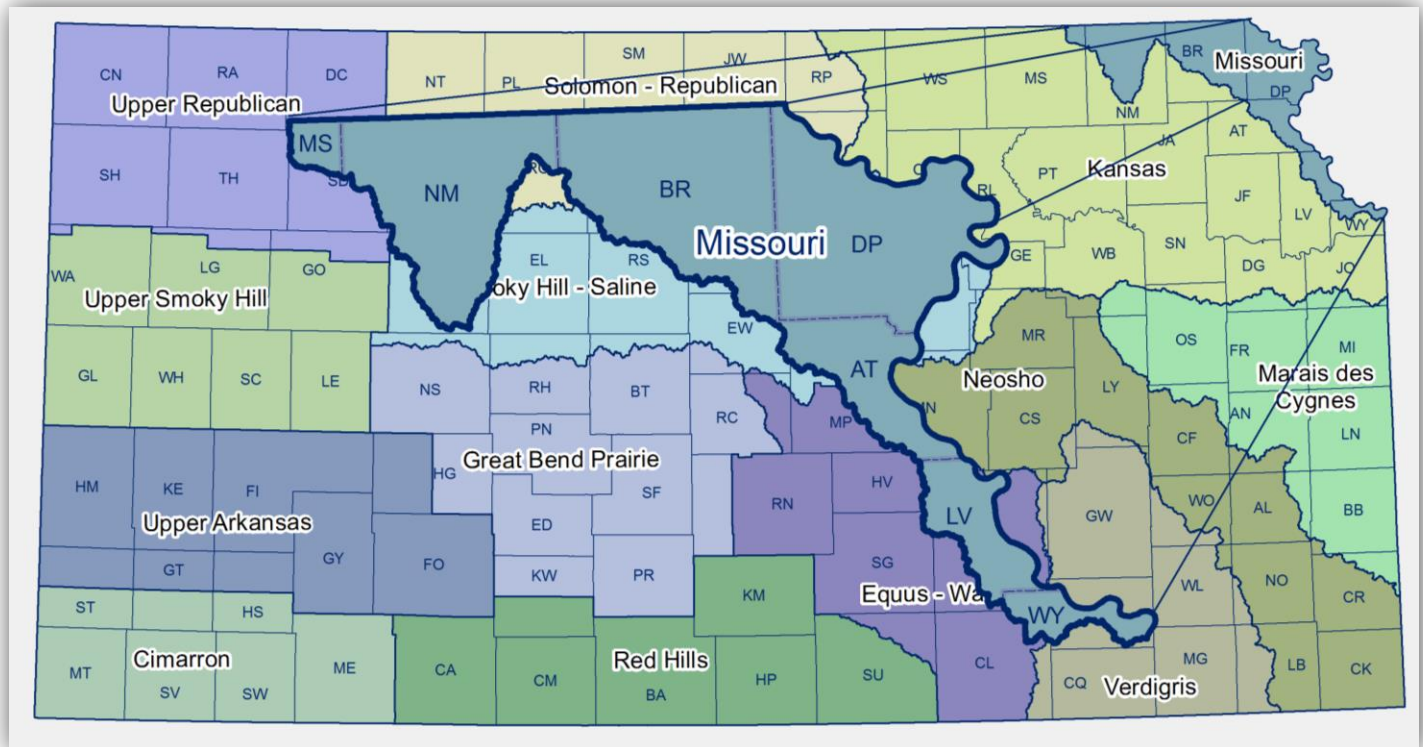


# Missouri Regional Planning Area

## Guiding Principles

*Over the next 50 years, there needs to be an adequate, sustainable and affordable quality water supply in the Missouri Region, while protecting Tribal water rights and sacred and cultural sites. All government agencies, local through state, shall vigorously uphold and enforce all water conservation and management rules and regulations throughout the state.*

*Assure any future water transfers from the Missouri River be based upon the protection of the priority of water supplies in the Missouri region, protection of private property rights, protection of cultural and heritage sites and consideration of environmental impacts. Ensure any beneficiary of transferred water would have exhausted all other alternatives, including crop types, irrigation practices and all other appropriate conservation measures.*



1. Since groundwater quality is not well known, compile existing and collect additional data over the next 5 years to establish a baseline. Within 3 years after the baseline is established, a plan to implement best management practices will be developed to maintain and improve existing conditions. Monitoring and reevaluation of groundwater quality conditions and should continue at 5 year intervals.
2. To ensure a reliable surface water supply in the future, best management practices will be implemented so surface water quality in identified drainages is maintained or improved using goals and milestones as identified in the Missouri Watershed Restoration and Protection area 9 Element Plan.
3. Collect additional information to improve safe yield estimate of groundwater and tributary streams within 3 years. Place a moratorium on additional permits until safe yield is identified. Once determined, only issue permits that do not exceed that yield. Safe yield should then be continuously monitored.
4. Within 3-5 years the state should initiate a comprehensive education and outreach program. By the time of 8th grade graduation, kids should know where their water comes from, understand the basics of the water cycle, know basic water conservation principles and understand that their actions impact water quality and water quantity. Schools, water providers and conservation districts should be the primary deliverers. A component of the comprehensive program should include enhancing information and outreach on research, technology and management practices using social media and public information outlets.