



July 14, 2016, Garden City, Kansas

April 6, 2016, Garden City, Kansas

January 20, 2016, Garden City, Kansas

## Upper Arkansas Regional Advisory Committee Meeting

9:30 am July 14, 2016

Garden City, Kansas

### Members Attendance:

<i>Name</i>	<i>City</i>	<i>Proposed Category</i>	<i>Present</i>
Ted Boersma (Chair)	Cimarron, KS	Dairy	N
Hugh Brownlee	Syracuse, KS	At Large Public (cc)	Y
Roy Dixon	Garden City, KS	Agriculture Industry	Y
Rich Higgins	Lakin, KS	At Large Public	N
Steven Hines	Coolidge, KS	Surface Water Irrigation	Y
Titus Jaeger	Lakin, KS	Groundwater Irrigation	Y
Fred Jones	Garden City, KS	Public Water Supply (cc)	Y
Joe Jury	Gray County, KS	Agriculture (cc)	N
Wayne Keller	Ford, KS	At Large Public	N
Michael MacNair	Jetmore, KS	Conservation/Environment (cc)	Y
Kyle Nelson	Holcomb, KS	Industry/Commerce (cc)	Y
Mike O'Brate	Ingalls, KS	Groundwater Management	Y
Ray Slattery	Dodge City, KS	Public Water Supply	N

### Others in attendance:

Gary Boldt, Amanda Shaw (NRCS), Bob Atchison (KFS), David Barfield (KDA-DWR), David Englehaupt (KDA-DWR), Mike Meyer (KDA-DWR), Armando Zarco (KDA-DWR), Kevin Salter (KDA-DWR), Mark Rude (GMD3), Jason Norquest (GMD3), Ginger Harper (KWO), Diane Knowles (KWO)

**Welcome and Introductions:** Titus Jaeger acted as chair for the meeting by consensus. Self-introductions were made.

**Approval of Agenda:** Motion to approve the Agenda, with the change in item order to accommodate presenters by Steve Hines, second by Roy Dixon. Motion Carried.

**Meeting Notes:** Motion made by Fred Jones to approve the April meeting notes as presented, second by Steve Hines. The motion carried.

### Vision / Action Plan

**KWA feedback** was provided in the draft action plan bullets through suggestions and notes for consideration development of the actions occurs.

### Goal: River Streamflow of 1 cfs at Dodge City

**Compact and Streamflow:** David Barfield (DWR) provided a brief history and pertinent points on the Arkansas river Compact with Colorado and the regional goal of re-establishing streamflow in the river to Dodge City. Compact discussion included: that Colorado stores water in Pueblo Dam and other dams that is pre-compact, trans mountain water and municipal storage. Kansas claim on water above John Martin is not simple; 40% of compact water stored in John Martin can be called for by Kansas; and Fountain Creek flood protection activities are being watched by Kansas, Colorado claiming they will not reduce flows to Kansas.

Discussion on reestablishing flow included: a considerable number of water rights would have to be turned to make the system healthy enough to flow again; water quality impacts could be a concern; precipitation does not contribute much to runoff and river flow in the area; the Compact is silent on flood flows; the state is working on several issues related to flood events; there is no chance to meet the goal with water coming across the state line; and water right retirements and phreatophyte control and flood flows could all contribute towards flows to river.

**Tamarisk Control Project:** Robert Atchison (KFS) provided an overview of Kansas Forest Service proposal to reduce phreatophytes in the region through a USFS Grant. The \$300,000 grant will require a 50:50 match of state and local in-kind from partners. The three-year project can leverage federal dollars such as RCPP and EQIP.

Motion to support and partner on the FY 2017 USFS State and Private Landscape Scale Restoration Competitive Program Grant Proposal of the KFS with in-kind was made by Steve Hines, seconded by Roy. The motion carried with one dissenting vote.

RAC reviewed the Action Plan for Goal 2: *By 2020, continue to re-establish and maintain flows along the Upper Arkansas River in the amount of one cubic feet per second at the USGS gage located at Dodge City for 100% of Kansas' share of compact water and a quantified share of high flows that is currently stored in Colorado that is over and above the compact amount through management of river flows and maintenance of open channel conveyance through 100% of tamarisk control. Ensure we maintain compact compliance and enforce the compact when necessary.*

Motion made to accept changes to bullets of Goal 2 as presented was made by Hugh Brownlee, seconded by Roy. The motion carried.

### **Goal: Extend Ogallala Aquifer Life; slow depletion- Refine Action Plan**

*Goal 1: Extend the usable lifetime of the Ogallala Aquifer for at least 25 years in the planning region through the promotion of multiple Local Enhanced Management Areas (LEMAs), Water Conservation Areas (WCAs) and other incentive-based programs. Slow the depletion of the Ogallala Aquifer by 25% in 10 years in the planning region maximizing the opportunity to make use of emerging technologies. Encourage conservation through added flexibility. Find additional sources of water and a place to store water for irrigation and recharge. Increase the opportunity to use wastewater for other beneficial uses. Increase education of aquifer conditions.*

Discussion of the action plan for Goal 1 resulted in setting 2000-2015 as the base aquifer decline rate for the goal; refining bullets and grammatical corrections. The RAC will review a clean copy. If the RAC has no significant changes the Action Plan is considered ready for KWA.

It was requested that DWR generate a map of wells needed to be shut off to meet goal, beginning with the most junior.

### **Goal: Municipal Conservation - Refine Action Plan**

*Goal 3: Maximize available water and promote conservation of municipal use through incentives, education and outreach, reduced water loss, and increased data availability to reduce gallons per capita per day usage.*

The draft set of actions were reviewed and reworded at the meeting. It is now ready for KWA.

## Goal: Industrial Conservation

**Industrial Conservation/incentives:** Due to time constraints it was a consensus to skip Kyle Nelson's formal presentation. Copies were provided to those present.

### Refine Action Plan

**Goal 4:** *Maximize available water and promote conservation of industrial use through incentives, education and outreach, benchmarking efforts, and increased data availability to reduce gallons per production unit usage.*

The draft set of actions were reviewed and reworded at the meeting. It is now ready for KWA.

The RAC will review a clean copy of the entire set of actions. If the RAC has no significant changes the Action Plan is considered final and ready for KWA. If there are comments a conference call will be scheduled to finalize the Action Plan.

**Blue Ribbon Task Force Update-** Ginger Harper provided an overview of the table being used by the Task Force to look at possible fees to support the Water Plan Fund. This included the on line interactive use of the table to see what sort revenue would result. The next meeting of the Task Force is August 4, in Manhattan.

Discussion of fees and their effects occurred with significant discussion of fees already being paid on land and water use.

A motion was made by Steve Hines to recommend to the Blue Ribbon Task Force that any irrigation tax be scale able increasing as water use increases in order to promote conservation. The first half of an authorized quantity would not be taxed. The motion was seconded by Mike O'Brate. The motion carried.

**Timeline for Action Plans-** Diane Knowles reviewed the schedule for KWA to see final versions of the action plans at the next meeting (Aug. 31-Sept1) or at a special meeting scheduled in October. They will be presented to the public at the Governor's Water Conference November 14-15.

**Water Technology Farm update-** Diane Knowles announced the August 2 Field Day at the water technology farm (WTF), southern Finney County. Flyers have been emailed. The event begins at 10 am.

**Agency Updates-**none

### Future Meetings

Kyle Nelson and Hugh Brownlee expressed interest in representing the RAC at the August 31/September 1 KWA meeting if Ted is unable.

The next meeting will be a conference call within a few weeks, if further work on the Action Plan is needed.

Mike O'Brate made a motion to adjourn, seconded by Mick MacNair. Motion carried.

## Upper Arkansas Regional Advisory Committee Meeting

9:30 am April 6, 2016  
Garden City, Kansas

### Members Attendance:

<i>Name</i>	<i>City</i>	<i>Proposed Category</i>	<i>Present</i>
Ted Boersma (Chair)	Cimarron, KS	Dairy	Yes
Hugh Brownlee	Syracuse, KS	At Large Public (cc)	Yes
Roy Dixon	Garden City, KS	Agriculture Industry	Yes
Rich Higgins	Lakin, KS	At Large Public	No
Steven Hines	Coolidge, KS	Surface Water Irrigation	Yes
Titus Jaeger	Lakin, KS	Groundwater Irrigation	Yes
Fred Jones	Garden City, KS	Public Water Supply (cc)	Yes
Joe Jury	Gray County, KS	Agriculture (cc)	No
Wayne Keller	Ford, KS	At Large Public	Yes
Michael MacNair	Jetmore, KS	Conservation/Environment (cc)	No
Kyle Nelson	Holcomb, KS	Industry/Commerce (cc)	No
Mike O'Brate	Ingalls, KS	Groundwater Management	No
Ray Slattery	Dodge City, KS	Public Water Supply	Yes

### Others in attendance:

Rep. Bud Estes, Jim Whitt, Gary Boldt, Greg Graff (KWA/GMD1), Amanda Shaw (NRCS), Bill Simshauser (KACD), Lane Letourneau (KDA-DWR), Mike Meyer (KDA-DWR), Mark Rude (GMD3), Jason Norquest (GMD3), Tracy Streeter (KWO), Richard Rocker (KWO), Diane Knowles (KWO)

**Welcome and Introductions:** Ted Boersma welcomed everyone to the RAC meeting. Self-introductions were made.

**Approval of Agenda:** Motion to approve the Agenda with correction to review January meeting notes and the addition of Representative Estes after item 2 by Steve Hines, second by Roy Dixon. Motion Carried.

**Representative Estes** explained a water reduction /energy reduction proposal to address the serious Ogallala problem. Basic idea is to exchange income from some water use for that of energy production in order to maintain the western Kansas economy. Producer that conserves water would be allowed to produce electricity and sell to power companies (currently not allowed). The initial step will be research through KU and KSU. Discussion included funding, acceptable energy production, value of water, incentives, role of power companies, role of GMDs, transmission lines and other items.

**January Meeting Notes:** Motion made by Steve Hines to approve the January meeting notes as presented. Second by Fred Jones, motion carried.

**Update on Water Conservation Areas and Proposed Rules and Regulation:** Mike Meyer noted the two approved Water Conservation Areas (WCAs) and about 30 others are under discussion. The WCA discussions range in size. Discussion of time this would extend the aquifer occurred. KDA explained modeling indicates the benefits to a WCA are local. Specifics can be run through the model by DWR or KGS. It was noted that DWR considers previous conservation when working with producers on conservation tools/programs.

Recent hearing was held by DWR on full closure of GMDs 3 and 4 and metering of GMD1. Once an area is closed the old use it or lose it rule no longer applies.

Information can be found at <http://agriculture.ks.gov/divisions-programs/dwr/managing-kansas-water-resources/wca>.

**Water Technology Farm Overview:** Tracy Streeter explained the water technology farm underway south of Garden City. The partnership of agencies, organizations, agriculture/technology businesses, KSU research and extension, consultants and others is making the sandhills area farm possible. Other water technology farms in 2016 are north of Garden City and near Larned. Additional farms are anticipated in 2017. The purpose of these farms is to show reduced water use does not have to adversely affect an operation. An August 2016 filed is anticipated.

Discussion included the need for data, including costs to reduce, costs to convert; to show NRCS a technology such as MDI should be eligible funder federal programs; and funding.

This lead to discussion of the Blue Ribbon Task Force and the example of 1 cent per 1000 gallon assessment suggested at the task forces last meeting.

### Agency Updates

Southwest Kansas Groundwater Management District #3: Mark Rude discussed the handouts provided by GMD3 on S Sub HB 2059 concerning filing fees. He also discussed water transfer.

Natural Resource Conservation Service: Amanda Shaw encouraged involvement with the NRCS State Technical Committee to make changes in federal program eligibility and priorities.

**Action Plan to address Water Use Reduction Goal** was discussed. Consensus was to add a bullet indicating support of research on water conservation with energy production incentive. Also recognized was that the actions/action plans need funding. Suggestion was made that KWO cost out programs.

Tracy Streeter noted “Thirsty Land” will be used to promote conservation, WCAs, LEMAS and technology to conserve water.

Other suggestions included encouragement for GMD3 to establish a LEMA, to lead by example, provide education, use the Garden City pilot project as example (subsurface ballfield watering using milk plant water), upper Permian water use potential, KACD, and conservation district newsletters.

Hugh Brownlee made the motion to add under Goal #1 Finding additional water “support exploration and investigation of surface water transportation for Kansas. Motion seconded by Steve Hines. Motion Carried.

### Future Meetings

Kansas Water Authority: May 18 & 19, 2016, Oakley, KS. Fred Jones will represent the RAC.

Upper Arkansas RAC: Next meeting may be associated with the Thirsty Lands presentation within the Regional Planning Area to be held in Garden City. A conference call will be arranged if needed to coordinate.

## Upper Arkansas Regional Advisory Committee Meeting

9 am January 20, 2016  
Garden City, Kansas

### Members Attendance:

<i>Name</i>	<i>City</i>	<i>Proposed Category</i>	<i>Present</i>
Ted Boersma (Chair)	Cimarron, KS	Dairy	Yes
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Roy Dixon	Garden City, KS	Agriculture Industry	Yes
Rich Higgins	Lakin, KS	At Large Public	No
Steven Hines	Coolidge, KS	Surface Water Irrigation	Yes
Titus Jaeger	Lakin, KS	Groundwater Irrigation	Yes
Fred Jones	Garden City, KS	Public Water Supply (cc)	Yes
Joe Jury	Gray County, KS	Agriculture (cc)	Yes
Wayne Keller	Ford, KS	At Large Public	Yes
Michael MacNair	Jetmore, KS	Conservation/Environment (cc)	Yes
Kyle Nelson	Holcomb, KS	Industry/Commerce (cc)	Yes
Mike O'Brate	Ingalls, KS	Groundwater Management	No
Ray Slattery	Dodge City, KS	Public Water Supply	Yes

### Others in attendance:

Bob Knoll (South Side Ditch Assoc.), Troy Drumler (Garden City Company), Randy Hayzlett (KWA), Kevin Salter (KDA-DWR), Mike Meyer (KDA-DWR), Jonathon Aguilar (KSU-R&E), Chris Law (GMD3), Jason Norquest (GMD3), Dwane Roth, Tracy Streefer (KWO), Diane Knowles (KWO)

**Welcome and Introductions:** Ted Boersma welcomed everyone to the RAC meeting. Self introductions were made by everyone.

**Approval of Agenda:** Steve Hines made a motion, seconded by Roy Dixon to approve the Agenda as presented. Motion Carried.

**October Meeting Notes:** October meeting notes were approved as presented.

**Groundwater savings/aquifer decline reduction efforts:** Jason Norquest reviewed water related activities important to GMD3 including:

- RCPP (regional conservation program project) to use moisture probes, telemetry and crop consultants to monitor moisture needs in irrigated crops. There is approximately \$1.9 million for use in the five GMDs, with a \$6,000 per farmer cap that targets high producing wells.
- SB322 concerning water transfers to adjust the present statutory application fee structure. This relates to alternative supplies for the area.
- Continues to work to understand the economics relationship to water in Kansas.
- Development of Water Conservation Areas (WCA) could be important, the first in the area has been passed by GMD3.
- Providing input on rule and regulation development and updating the GMDs management plan which includes rules and regulations on water rights and their management in the area.

Discussion occurred to clarify WCA potential issues such as change in ownership; the consent agreement is a voluntary action of the water right holder so can get out if situation changes.

Discussion also occurred on point of diversion moves in the future if proposed rule and regulation changes are made. Moves will be limited to 300 feet unless it is demonstrated the new location would not decrease saturated thickness more than 20% in 50 years. This change is in response to Water Vision Goal implementation. It was also clarified that in an Intensive Groundwater Control Area (IGUCA), IGUCA rules apply.

Discussion occurred if the GMD3 board is taking the Vision Goals into account. The response was the GMD represents all locals so all neighbors should receive notification of moves; spacing is based on authorized quantities on a well. It was noted that the GMD Management Plan is in the process of being updated, and should reflect the changes in conservation tools such as Multi Year Flex account (term permits) and Local Enhanced Management Areas (LEMAS). The GMD Management Plan must also work for both the Upper Arkansas and Cimarron Regions.

**Water Conservation Areas:** Mike Meyer explained and discussion further clarified that WCAs are voluntary for the producer to improve the flexibility (use) of their water right. Generally a water budget is agreed upon in a consent agreement with the Chief Engineer. They can be a group of water right holders or an individual. The water rights are not permanently changed; rather a water budget is set up with conditions that allow some flexibility the holder has defined, with a water savings component. Information can be found at <http://agriculture.ks.gov/divisions-programs/dwr/managing-kansas-water-resources/wca>. This information includes the approve WCA in the Goodland area and the nearly in place one in Stanton County. A LEMA is another tool for a group of water rights that works through a GMD.

The WCA is a consent agreement between the water right holder and the Chief Engineer. Generally a baseline of 2003 - 2012 water use is used, but past conservation is included. Timeframes and other factors that result in conservation can provide flexibility. The water right holder(s) in a WCA can propose their ideas to the Chief Engineer, there is no set formula. The WCA does not have to be contiguous and does not need a public hearing.

Both WCA and LEMA participants can enter into agreements with the Risk Management Agency (RMA) for limited irrigation insurance in 2016. It is anticipated a statewide limited irrigation program will be in place by 2017.

**Mobile Drip Irrigation Evaluation:** Jonathan Aguilar provided an overview of the MDI technology evaluation which compared evaporative losses from MDI & LESA (in canopy spray nozzles) irrigation methods. In addition to nozzles, two well capacities (300 gpm and 600 gpm) were evaluated. Due to the unusually wet year, some results were inconclusive, however, for the 300 gpm wells, MDI fields had more end of season water and MDI was shown to have lower soil water evaporation. The research will continue.

**Water Technology Farm Overview:** Tracy Streeter explained the concept of water technology farms, which are part of the Vision. Fields scale trials of new technology, ideally in each region local, state and federal entities, water infrastructure manufacturers and others. Research to evaluate water saving technology and efforts would be part of this as well. Hopefully there will be some subsidy for the producer to try tools to reduce water use and maintain the bottom line (economics). Preference is to promote technology farm in conjunction with a LEMA or Water Conservation Area. The information generated would be shared with other producers. There is interest in this region.



### Action Plan to address Water Use Reduction Goal

*“Extend the usable lifetime of the Ogallala Aquifer for at least 25 years in the planning region through the promotion of multiple Local Enhanced Management Areas (LEMAs), Water Conservation Areas (WCAs) and other incentive-based programs. Slow the depletion of the Ogallala Aquifer by 25% in 10 years in the planning region maximizing the opportunity to make use of emerging technologies. Encourage conservation through added flexibility. Find additional sources of water and a place to store water for irrigation and recharge. Increase the opportunity to use wastewater for other beneficial uses. Increase education of aquifer conditions.”*

Discussion the Action Plan recognized a need to include municipal and industrial water use in addition to agriculture when working to extend the life of the aquifer. At least Garden City and Dodge City are reported to be reducing per capita per day water use, reusing / recycling water or taking other steps to reduce the withdrawals from the Ogallala. It was also reported that major industry also has reduced water use over time with improved technology/equipment. Kyle Nelson offered to put some industrial data together for the RAC.

Request was made that DWR provide maps of estimated aquifer life of the Upper Arkansas Region in order to provide more detail to the RAC when considering the action plan to achieve the goal.

Discussion continued including the following points:

The need to encourage and promote WCAs and LEMAS;

Mandatory water use reductions- reduce inefficiency not reduce based on seniority;

Consider water quality, poorer water often requires more water for the same result;

CREP improvements were suggested, however as a federal program, success may be limited;

Develop another program like CREP to convert to alternate cropping or irrigation systems;

Get MDI accepted for EQIP program

Provide an incentive to drop from 600 gpm to 300 gpm

**Chairman Ted, requested RAC members send ideas to Diane for distribution to the group.**

**Public Input** - none

### Future Meetings

Kansas Water Authority: January 27<sup>th</sup> – 28<sup>th</sup> Topeka, KS

Upper Arkansas RAC: April 6, 2016, Garden City