4th Annual
Midwest Soil Improvement Symposium: 2014
Research and Practical Insights into Using Gypsum

Vision for the Future of Water in Kansas

Secretary Jackie McClaskey
Kansas Department of Agriculture

and

Director Tracy Streeter
Kansas Water Office

AUGUST 13, 2014

GYPSOIL | KARA

Vision for the Future of Water in Kansas

Preliminary Discussion Draft
As of July 2014

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Introduction of the Vision Team

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Call to Action

*"Water and the Kansas economy are directly linked. Water is a finite resource and without further planning and action we will no longer be able to meet our state's current needs, let alone growth." – **Governor Sam Brownback***

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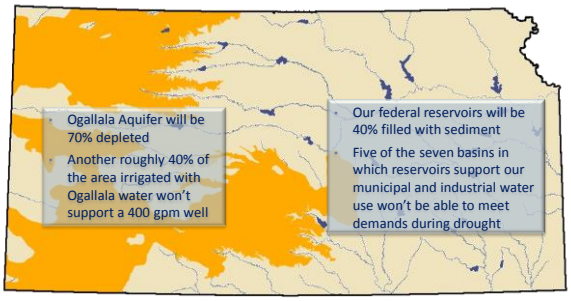
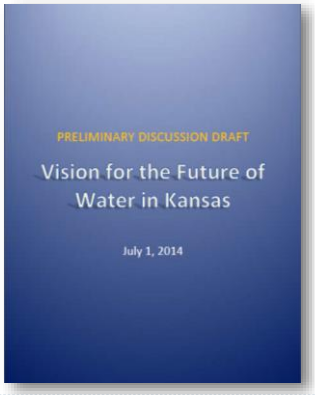
In the next 50 Years if we take no action….





Available on line at:
www.kwo.org

NOTE TO READERS

Your feedback and input is critical for the development of this document

Page 9

How the Document is Organized

- Vision & Mission Statements
- Statewide, Regional and Specific Goals
- Four themes
  - Within each theme 3-5 specific strategies
    - Within each strategy:
      - Short, Mid and Long-Term Milestones
      - Potential Action Items

*The action items listed represent ideas developed during the Vision outreach process and are included for discussion. Action items listed have not been endorsed by the Governor or the full Vision team – **pending additional stakeholder feedback***

Page 5

Vision:

***Kansans** are committed to having the water resources necessary to support the state's **social, economic and natural resource** needs and to provide for **long-term** opportunities and **state-wide economic growth**.*

- Designed to reflect input received
- Provides the overall theme for the entire document
- Intentional focus is to create a commitment among Kansans to consider the state's long term water needs with a focus on better resource management while continuing to grow the state's economy

Page 6

Mission:

Provide Kansans *with the framework, policy and tools,* ***developed in concert with stakeholders****, to manage, secure, and protect a reliable state-wide water supply while balancing conservation with economic growth.*

- Designed to reflect input received
- Provides overall direction for execution of the Vision
- Intentional focus is to create a commitment from the state and other entities to provide Kansans the tools they need to better manage water resources and create economic growth

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Examples of Goals

Examples of Statewide and Regional Goals

- Conserve and extend the usable lifetime of the Ogallala Aquifer
- Secure, protect and restore reservoir water supply storage
- Achieve and maintain sustainability of the Great Bend Prairie, Equus Beds and Ozark Aquifers

Examples of Specific Goals

- Reduce statewide water consumption by 20% by 2065 while maintaining a position as a leading Midwest state contributor to real U.S. economic growth
- Increase the estimated usable lifetime in all areas of the Ogallala Aquifer in Kansas by a minimum of 25 years

Page 9

Draft Themes and Strategies

Pages 12-18

Water Conservation

1. Strategically emphasize information and education regarding the value of water and the importance of water conservation practices
   - K-12 schools, youth organizations such as FFA and 4-H, our legislators and ourselves as consumers
2. Implement additional or enhanced water conservation policies and practices, both voluntary and non-voluntary
   - Ensuring those who are already good stewards of water conservation are not penalized
   - Providing good technical data that can be used to build economic tools to help water users make decisions

Pages 12-18

Water Conservation

3. Reduce barriers and increase development of locally driven conservation and management plans
   - Encouraging LEMAs by making sure policies do not interfere with local ideas
4. Increase adoption of watershed practices that reduce future water supply loss
   - Building above the reservoir so that sediment does not end up in the reservoir

Pages 19-28

Water Management

1. Modify reservoir operations and downstream targets to most efficiently operate reservoirs for water supply
   - Looking to see if Kansas' current minimum desirable stream flow targets established as statute are still appropriate
2. Improve interstate cooperation so that Kansans' water needs are met and protected
   - Cooperating with other states, including Colorado with the Arkansas River and Nebraska with the Republican River, to manage water resources in a way in which everyone benefits
   - Protecting our own stream flow
3. Increase the regionalization of water supply, where doing so would improve the long-term water supply reliability
   - Helping to enable communities to help each other when they become vulnerable in a drought

Pages 19-28

Water Management

4. Propose changes to the Kansas Water Appropriation Act and Rules and Regulations to promote better balance between efficient water use and economic benefit
   - Currently based on proposed yield/planned depletion
   - Why issue new permits?
5. Evaluate and improve state agency coordination and collaboration
   - Continuing the collaboration we see now

Pages 29-34

Technology & Crop Varieties

1. Promote irrigation efficiency technologies
   - Researching technologies such as remote access, soil moisture profile monitoring, how long a circle can be off, etc.
   - Additional on-farm examples of multiple technologies and tools are needed
   - Utilizing new technologies already available, rather than starting all new research
2. Increase utilization of less water intensive crop varieties
   - Discussing research needs for different types of crops
   - Co-existing with other varieties (e.g. 2,4-D vulnerable crops)

Pages 29-34

Technology & Crop Varieties

3. Implement research-based technology aimed at better understanding our state's water supply
   - Clearinghouse app
   - A lot can now be done on touchscreens
   - Making services and information easily accessible in apps
   - Researching and utilizing feed grain wheat

Pages 35-44

New Sources of Supply

1. Restore water supply lost to sedimentation through dredging and other in-lake sediment management techniques
   - Working on the John Redmond reservoir project in Burlington, which provides energy for the power plant
   - Most of the sediment flowing into the lakes happens during high-flow instances (modeling at Tuttle Creek)
2. Allow for the transfer of water supplies between basins where feasible and cost effective
   - Missouri River to Kansas (1982)
   - The practice is coming back in to play where we have areas with plenty of water
   - Hays purchased Kinsley water rights and are working to move water to Hays
3. Evaluate the sources and potential uses of lower quality sources of water
   - Looking at sources with high chloride content
   - Learning about Israel's desalinization processes
   - Ensuring that current policies no longer inhibit communities from being innovative

Pages 35-44

New Sources of Supply

4. Secure all available storage at Federal reservoirs including reallocating storage where such actions are possible
   - Making sure there is storage for our citizens at federal reservoirs
   - Raising the pool (it was done at John Redmond, and we are looking at doing the same at Kanopolis
5. Increase other sources of storage available for water supply
   - Overcoming restrictions
   - Capturing sources to be used in high-flood periods

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Be the Vision

Hays has achieved a very low regional daily water use per capita per day compared to any other large community in the state (less than 100 gallons per person each day).

McCarty Farms extracts water from their milk before sending the milk to Dannon in Texas. They send condensed milk to Dannon and use the extracted water for their on-the-farm practices, such as cleaning the parlor.

Share examples of communities, companies and individuals who are "Being the Vision"

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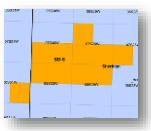
Be the Vision

Owens Corning in Kansas City overhauled their entire operating system to reduce water use by 70 percent in five years



Share examples of communities, companies and individuals who are "Being the Vision"

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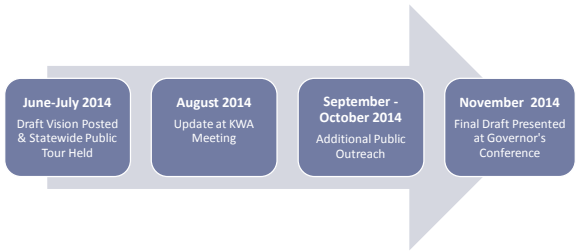
Next Steps



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Your input is Critical….

- *Within each theme area, are there areas of concern that have not been addressed?*
- *Within each strategy, are there action items to be considered that are missing or should be included?*
- *Are there action items or ideas that should <u>not</u> be pursued?*
- *What are the top priority action items within each strategy?*
- *Who are the potential partners key to execution of the action items?*
- *What are potential ways for which these strategies and action items can be measured for success?*

Questions, Discussion & Feedback

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