

**KANSAS REGION**

**Guiding Principles:**

The following are vital guiding principles to implementing the goals in the Kansas region:

- Increasing research to utilize the most effective technology and best management practices available
- Developing and implementing a comprehensive water education program for all ages

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Increase water storage capacity and availability in federal reservoirs. By 2020, purchase all available storage in federal reservoirs to secure an adequate water supply for the region. By 2025, evaluate the ability to raise the conservation pool in each federal reservoir.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Securing storage is in process. In response to the Federal Water Resources Development Act (WRDA), the KWA will present timeline in Jan. 2016</li> <li>• Potential reduction in flood retention should be considered when evaluation of conservation pool rises occur</li> <li>• The plan will include the timeline, amount of storage and costs. The KWA recommends no changes to this goal</li> </ul>
<p>By 2050, explore additional storage possibilities such as construction of multipurpose lakes so that new water sources can be brought online.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Great success stories of multipurpose lakes in the region</li> <li>• No recommended changes to this goal</li> </ul>
<p>Reduce the cumulative sediment rate of federal reservoirs and other water supply lakes by 10 percent in the Kansas region every 10 years through implementation of watershed best management practices.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation and success towards reaching goal can be measured by ongoing monitoring and some of the enhanced monitoring identified in Vision.</li> <li>• Important to recognize the contribution of sediment from Nebraska rivers and streams and encourage best management practices across state lines</li> <li>• No recommended changes to this goal</li> </ul>

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<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
By 2035, reduce per capita water consumption by 10 percent by 2035 through conservation, education and pricing mechanisms.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• What is the baseline? (ex: 2015 GPCD regional average)</li> <li>• When comparing Kansas to other states, is this goal too aggressive</li> <li>• Add “and reductions in loss for unaccounted for water.” Remove “and pricing mechanisms.” Should there be a per capita goal that is not tied to a percentage of reduction</li> </ul>

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<b>Kansas Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>The final goals will be incorporated into the vision, as well as, the Kansas Water Plan. The Kansas Water Plan will serve as an implementation plan towards achieving the goals.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>The team may consider a goal related to some of the harmful algae blooms at the reservoirs in the Kansas region. An example water quality goal to address harmful algae blooms may include: "After 2020, reduce duration and frequency of harmful algae blooms disrupting recreation in lakes such that blooms last under a week and do not occur until after Labor Day."</li> <li>Important to recognize role of watershed contributions to downstream water quality.</li> </ul>
<b>What's Great?</b>
<ul style="list-style-type: none"> <li>Goal that addresses bringing available storage into service</li> <li>Specific goals from the start</li> </ul>

**Notes from May 20<sup>th</sup> Meeting for the Kansas Region:**

KWA complimented the Kansas region on their goals. Question and discussion on the contribution of sediment from Nebraska to Tuttle Creek Reservoir and whether or not that was addressed in the goals. Response and discussion focused on the efforts of the Tuttle Creek WRAPS in effectively reducing Kansas' sediment contributions

KWA discussed the feasibility of a 10% sediment reduction goal and whether the team felt the goal was aggressive enough or was realistic. KWA and Chair discussed challenges with voluntary participation in meeting goals.

KWA asked questions of the Kansas Chair related to water quality goals. KWA members highlighted other regions that included a goal related to chloride or nutrients where the water quality impairment impacted available water supply. Chair noted the team focused on water supply goals and understands addressing sedimentation would positively impact other water quality concerns.

**MISSOURI REGION**

**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.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Assess safe yield of groundwater and tributary streams in 3-5 years. Place a moratorium immediately 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.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Appreciate caution expressed in the goal however ensure a moratorium does not hamper economic growth</li> <li>• Advise the team to coordinate with KDA-DWR to review safe yield and available yield. Additional monitoring and research may be needed to improve accurate information in determining available yield</li> </ul>
<p>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.</p>	<ul style="list-style-type: none"> <li>• Add measurable criteria</li> <li>• Add time bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>• More of a statement than a goal. Recommend making this a guiding principle.</li> <li>• This concept and ultimate goal is more appropriate for a statewide goal</li> <li>• Part of goal may include a review of Water Transfers Act. Action items in vision may help address this comment/concern as well</li> </ul>
<p>To ensure a reliable water supply in the future, best management practices will be implemented so water quality is maintained or improved over the next 10 years.</p>	<ul style="list-style-type: none"> <li>• Add a more specific measurable criteria (how many acres, percentage of priority areas, number of practices)</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend establishing/describing baseline criteria</li> <li>• Milestones</li> <li>• What is the starting point?</li> </ul>

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<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Within 3-5 years the state should initiate a comprehensive education and outreach program. Promote responsible use of water through education of the general public, starting with youth. Support additional research, education and development about technology and management practices.</p>	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (3-year water education program targeted to youth, minimum number of education workshops)</li> <li>• Add more results oriented (evaluate impact on citizen awareness, assess impact on water conservation)</li> </ul>	<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> </ul>

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<b>Missouri Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Direct the Vision Team to review action items related to transfers. Ensure action items assist in recognizing this goal/guiding principle.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>• Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<b>What's Great?</b>

**Notes from May 20<sup>th</sup> Meeting for the Missouri Region:**

KWA discussed whether the region felt they had adequate information to establish goals for best management practices and other conservation activities. Missouri Chair noted the WRAPS program and plan development has helped greatly in achieving an understanding of the watershed conditions and impacts of practices.

David Barfield asked clarifying questions on the safe yield analysis to understand if this was a well-defined concern for the region. Missouri chair noted the yield assessments is mostly a concern in alluvial areas. Also expressed concerns for the reduced permitting required for small dams which is altering the hydrology of the region.

**MARAIS DES CYGNES REGION**

**Guiding Principle:**

The MDC Goal Team believes it is necessary to increase support and resources for sedimentation reduction practices as well as new sources of supply and education to meet the future water supply needs in the MDC region for the next 50 years. Education and water quality were the two most common priorities shared by the public throughout the three public meetings. The following are draft goals to address the highest priority issues for the MCD region.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
Reduce cumulative sediment loads entering public water supply impoundments by 10 percent in the Marais Des Cygnes River Basin every 10 years to extend the life of existing infrastructure.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>No changes recommended</li> <li>Appreciate continual review of progress (every 10 years)</li> </ul>
Increase sources of supply, at a minimum of one multipurpose structure, to meet increased demand in specific growth areas by 2035.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>KWA commends approach for increasing source of supply</li> <li>Recommend using Verdigris goal as an example: Ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050</li> </ul>
Increase education and awareness efforts, on per capita conservation, sedimentation, current beneficial use, water quality (state and federal standards), and necessary actions in the MDC region, to protect supplies and meet emerging issues by 2035.	<ul style="list-style-type: none"> <li>Add a more specific measurable criteria (how will an increase in efforts be assessed)</li> </ul>	<ul style="list-style-type: none"> <li>What do you want task force to focus on? (see education feedback from KWA)</li> </ul>

<b>Marais des Cygnes Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• While no water quality goals were recommended by the team, many efforts to address water quality (WRAPS, conservation districts, etc.) are underway in the region.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>• Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>• Potential recognition of use of WRAPS groups to protect Hillsdale.</li> </ul>
<b>What's Great?</b>
<ul style="list-style-type: none"> <li>• Appreciate capturing a continual review of progress and milestones as expressed in first goal.</li> </ul>

**Notes from May 20<sup>th</sup> Meeting for the Marais des Cygnes Region:**

Questions and discussion on the reliability of sediment surveys for water supply lakes. Is there sufficient information to establish sediment reduction goals and to measure change?

Discussed the role of regulation and permitting in reducing or slowing the implementation of sediment reducing best management practices.

Discussed the role of cover crops as a sediment reducing practice. The chair shared that it takes 3-5 years to see the benefit of cover crops.

**NEOSHO REGION**

**Guiding Principle:**

While water resource policy and procedures will play a role in achieving the goals in the Neosho planning region, continued information and education that promotes voluntary, flexible and creative solutions will result in the greatest long-term success.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>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 per year through watershed practices such as no-till, filter strips and streambank stabilization. By 2025, all streambank hotspots will be stabilized. By 2030, 80% of the priority cropland in need of conservation will be treated with no-till practices.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
<p>Reduce vulnerability to drought by the increasing reservoir storage at Marion and Council Grove Reservoirs through a permanent raise in conservation pool elevation. By 2025, evaluate the feasibility of permanent conservation pool rise at Marion and Council Grove reservoirs. Based on the outcome and findings of the feasibility study, stage increases in permanent pool elevation based on supply needs.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend reviewing Verdigris goal as an example goal to address storage: “Ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050.”</li> </ul>
<p>Reduce frequency of algal blooms in Marion Reservoir to no more than every 3 years through 2035. Evaluate the role of water level fluctuations in remediating and reducing algal bloom frequency.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
<p>Increase storage in basin below John Redmond through development of additional storage sites. By 2020, complete an assessment of potential reservoir sites in lower portion of the Neosho planning region; including potential off-stream storage sites.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>

**NEOSHO REGION**

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While water resource policy and procedures will play a role in achieving the goals in the Neosho planning region, continued information and education that promotes voluntary, flexible and creative solutions will result in the greatest long-term success.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
Every five years, assess the effectiveness of best management practices for effects on hydrology, reduction of sediment and nutrient, and provide that information and education to those implementing practices. Assessments may include off-stream storage for sediment and nutrient trapping, overland erosion and nutrient sequestration, in reservoir sediment and nutrient movement and re-suspension, and landscape scale watershed modeling project.	<ul style="list-style-type: none"><li>• Meets all SMART criteria</li></ul>	<ul style="list-style-type: none"><li>• No recommended changes</li></ul>

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<b>Neosho Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Key to successful implementation will be assessing progress every 5 years and then redefining goals as needed.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>• Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>• Should we have a supply exceed demand by a certain percentage (such as 10%) over the next 50 years?</li> </ul>
<b>What's Great?</b>
<ul style="list-style-type: none"> <li>• Each proposed goal met the SMART criteria.</li> </ul>

**Notes from May 20<sup>th</sup> Meeting for the Neosho Region:**

There were questions and discussion on the reliability of sediment surveys for water supply lakes. Is there sufficient information to establish sediment reduction goals and to measure change?

Discussed the role of regulation and permitting in reducing or slowing the implementation of sediment reducing best management practices.

Discussed the role of cover crops as a sediment reducing practice. For the Neosho region the role of no-till and cover crops was discussed at many of the public outreach meetings.

KWA asked questions regarding the Marion Reservoir algae bloom goal. Questions included whether the goal should relate more specifically to decreasing nutrient runoff or if the algae bloom is an appropriate indicator.

VERDIGRIS REGION		
Goal as Recommended by Regional Goal Leadership Team	SMART Criteria Feedback	KWA Feedback
In order to manage the water storage capacity in our region, evaluate different processes of managing our reservoirs by 2020. Then using best management practices, including consideration of cost/benefit of the practices: increase water storage capacity by 10 % every 10 years with priority given to existing structures, and ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>Ensuring water supply available aspect of goal is exemplary</li> <li>Will use similar approach in other regions</li> </ul>
Improve water conservation by all users through a public education campaign, with priority given to youth, to change behavior so that we can reduce per capita user consumption by 10% by 2025, to preserve the water supply for future generations.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>What is the baseline to measure against? (Ex: Upper Smoky Hill goal)</li> </ul>
By 2020 evaluate potential sites and the costs and benefits of building new reservoirs within the Verdigris Region to meet future demands. Permitting agencies should streamline processes to speed approval of small ponds and reservoirs.	<ul style="list-style-type: none"> <li>Add results-oriented criteria, the evaluation is activity (based on the outcome of the activity, what will be the result)</li> </ul>	<ul style="list-style-type: none"> <li>Result-oriented aspect of this goal falls under the first goal to ensure available water supply storage</li> <li>Structures are a better sediment tool than streambanks in Verdigris</li> <li>Should also look at Neodesha site as well as smaller sites</li> </ul>

<b>Verdigris Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Reservoir roadmap for the Verdigris Region identifies the construction of watershed structures as an effective sediment reduction tool, as well as, effective water supply storage. As potential storage sites are identified, that area should be protected from further development.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<b>What's Great?</b>
<ul style="list-style-type: none"> <li>Ensuring water supply available from storage exceeds projected demand by at least 10% through the year 2050. This is a great goal that may serve as an example for other regions. Applaud the region for considering the cost and benefits of building new reservoirs in the region.</li> </ul>

**Notes from May 20<sup>th</sup> Meeting for the Verdigris Region:**

KWA complimented the regions' water supply goal to "ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050" and used that goal as an example for others to compare for a SMART goal.

Questions and discussion on the reliability of sediment surveys for water supply lakes. Is there sufficient information to establish sediment reduction goals and to measure change?

Discussed the role of cover crops as a sediment reducing practice. For the Neosho region the role of no-till and cover crops was discussed at many of the public outreach meetings. Chair noted in the region a typical rotation may include corn, wheat, and beans – leaving no time for cover crops in between planting. Economics drive the decision for planting.

KWA discussed the role of unaccounted for water loss in the region's water supply. The Verdigris Chair noted that unaccounted for water was the topic of discussion during outreach events and with the team. It was identified as an area of concern for the region.

**SMOKY HILL-SALINE REGION**

Goal as Recommended by Regional Goal Leadership Team	SMART Criteria Feedback	KWA Feedback
<p>Develop a statewide conservation education program/model which is applicable to all public water supplies which quantifies water conservation efforts on customer usage. Develop a youth-based water conservation education program which is tied to school curriculum. Provide producers with tools and resources needed to make informed management decisions which improve water use efficiency. Educate all Planning Region stakeholders on the benefits of water conservation, thus working towards sustainable use of the region’s water surface and groundwater resources.</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria</li> <li>• Add more specific measurable criteria (3-year water education program targeted to youth, minimum number of education workshops)</li> <li>• Add more results oriented (evaluate impact on citizen awareness, assess impact on water conservation)</li> </ul>	<ul style="list-style-type: none"> <li>• Notable that the team acknowledges importance of conservation educations for public water suppliers</li> <li>• May be moved to Education Task Force in August.</li> </ul>
<p>Increase available water supply, water supply storage, and interconnectivity among public water supplies within the Smoky Hill – Saline Planning Region. Methods of attaining goal can include: temporary or permanent conservation pool rise at Cedar Bluff Reservoir; utilize Wilson Reservoir as a water supply source for the region; permanent conservation pool rise at Kanopolis Reservoir; evaluate Kanopolis Reservoir to determine the feasibility of dredging and initiate project if deemed viable; construction of new water supply reservoirs within region; and phreatophyte control within riparian areas.</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria</li> <li>• Add measurable criteria (how much of an increase in available water supply, percent increase in storage)</li> </ul>	<ul style="list-style-type: none"> <li>• Divide into separate goals to help meet SMART criteria. For example, provide one goal to address Kanopolis</li> <li>• Recommend looking at Verdigris goal as an example: “Ensure water supply available from storage exceeds demand by at least 10% through the year 2050.”</li> <li>• Interconnectivity is a positive for this goal</li> <li>• Phreatophyte water savings haven’t proven to be that great</li> </ul>
<p>Reduce sediment and total suspended solids (TSS) concentrations within the lakes and streams within the Smoky Hill – Saline Planning Region. Method of attaining goal can include the continued support of best management practice (BMP) implementation for practices which reduce sediment runoff. Result of effort will be to remove sediment-impaired waters from the KDHE TMDL list.</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend adding timelines as well as areas to concentrate BMPs. Also recommend considering a metric to demonstrate success towards achieving goal (% TSS Reduction)</li> </ul>

**SMOKY HILL-SALINE REGION**

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Increase public water supply water use efficiency for suppliers within the region. Method of attaining goal can include the promotion of development of new or updated water conservation program plans for public water supplies within the Smoky Hill – Saline Planning Region. The results of the efforts will be obtaining the same or increased outputs within participating municipalities while utilizing the same or less amounts of water.</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria</li> <li>• Add more specific measurable criteria (reduced gallons per capita per day)</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend looking at regional average water use. Recognize that Hays has excelled in GPCD use. Recommend considering a regional average for a benchmark or goal. Add timeline and more specific measurable criteria</li> <li>• First sentence could be modified to be the regional goal</li> </ul>

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<b>Smoky Hill-Saline Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Recommend the team look at other regional goal teams' goals for examples of measurable water supply and conservation goals. KWA recognizes the diversity and complexity of water resource conditions in the region and that this presents a challenge when developing goals. However, more measurable and specific goals are needed to demonstrate success.</li> <li>• Statewide review of Water Transfer Act.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>• Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>• Measurable conservation goal is lacking. Also missing a regional evaluation and corresponding goal. Recommend the team discuss the role of Hays and the regional average as a measurement.</li> </ul>
<b>What's Great?</b>
<ul style="list-style-type: none"> <li>• Role of water transfers is not outlined in goals or guiding principles.</li> </ul>

**Notes from May 20<sup>th</sup> Meeting for the Smoky Hill-Saline Region:**

KWA asked questions regarding the lack of numerical and time-based criteria in the region's proposed goals. The Smoky Hill-Saline Chair noted the team felt it was arbitrary to provide a number or date without additional information and knowledge.

KWA requested to see some objectives and what the goal team believes is achievable for the region. KWA asked the Chair to consider what additional information may be helpful to define a more measurable goal(s).

KWA questioned whether water transfers were a topic of discussion during the outreach meetings or among the team members. Recommended considering a goal related to transfers.

Members discussed the role of conservation on municipal utilities water sales and revenue. Regional chair discussed reduced sales through conservation are balanced by a reduced need to find additional supplies and the need to treat less water.

**SOLOMON-REPUBLICAN REGION**

**Guiding Principle:**

Education of current and future water users were a very high priority to the Solomon-Republican Goals Team. Team discussion identified that the Kansas Water Appropriation Act has use versus recharge in balance with some of their areas having increased in saturated thickness levels of the portions of the Ogallala within their regions. Reliable supply remains an issue for surface water users.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
Develop water education curriculum and to maintain existing training committees in the areas of conservation, nutrient management, water quality, water rights and economics for adults, young families and young professionals, and youth beginning development by 2016 and completion by 2018, to enhance existing efforts for methodical long-term delivery to public and private audiences. Enhanced education efforts should begin no later than 2020.	<ul style="list-style-type: none"> <li>• Add more results oriented criteria (evaluate impact on citizen awareness, assess impact on water conservation)</li> </ul>	<ul style="list-style-type: none"> <li>• Questions to ask each region- Education Task Force: (see education feedback from KWA)</li> </ul>
Within the next two years, develop a clearinghouse of technical tools, agreements and agency personnel for use alternatives for Solomon-Republican region waters. An example could be the marketing contract for Keith Sebelius Reservoir/Almena Irrigation District that reached agreement to convert irrigation to recreation use.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
Complete a bathymetric survey every 10 years on all reservoirs in the Solomon-Republican region.	<ul style="list-style-type: none"> <li>• Add more results oriented criteria (demonstrate the reduction of sedimentation)</li> </ul>	<ul style="list-style-type: none"> <li>• Add to goal: "To establish a baseline and assess sedimentation impacts for each reservoir"</li> <li>• What is the end goal or rationale for the need for this goal?</li> </ul>
Reduce inbound sediment loads, through conservation measures, with a focus on White Rock Creek to Lovewell Reservoir, by 25% every 10 years.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
Continue initiative that will maintain, and annually fund, a Kansas Administrative Team to facilitate Republican River Compact compliance by 2015.	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria</li> </ul>	<ul style="list-style-type: none"> <li>• KWA may consider a statewide goal to consider all interstate compacts.</li> <li>• Recommended that team add: "Provide routine feedback to state interstate team to communicate regional priorities."</li> </ul>

SOLOMON-REPUBLICAN REGION		
<b>Guiding Principle:</b>		
Education of current and future water users were a very high priority to the Solomon-Republican Goals Team. Team discussion identified that the Kansas Water Appropriation Act has use versus recharge in balance with some of their areas having increased in saturated thickness levels of the portions of the Ogallala within their regions. Reliable supply remains an issue for surface water users.		
<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<b>Solomon-Republican Region</b>		
<b>General Feedback from the KWA</b>		
<b>Education Feedback from the KWA</b>		
<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>• Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>		
<b>What's Missing?</b>		
<ul style="list-style-type: none"> <li>• Potentially consider goal demonstrating commitment to improving and protecting the watershed above Milford Reservoir.</li> </ul>		
<b>What's Great?</b>		
<ul style="list-style-type: none"> <li>• Commend the regional goal team for evaluating costs and benefits of various uses of each of the reservoirs (recreation, irrigation)</li> </ul>		

**Notes from May 20<sup>th</sup> Meeting for the Solomon-Republican Region:**

KWA questioned whether water transfers were a topic of discussion during the outreach meetings or among the team members. The Solomon-Republican Chair noted that water transfers were not a significant topic of discussion and that generally there is enough surface water for irrigation.

**RED HILLS REGION**

**Guiding Principle:**

After review of the existing water resources within the region, the Red Hills Goals Team prioritized conservation of existing supplies as the highest priority. During the discussion of new sources of supply, the team noted the lengthy process of planning, designing, permitting and funding and reflected those issues through realistic time frames. A significant amount of oil production occurs in this region and the team recognized this with water conservation goals, as well.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
Reduce the rate of water use by 10% throughout the region collectively by 2025. Conservation should be voluntary and encouraged to use incentive based policies and programs.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
Increase sources of supply through the use of a multipurpose small lake to meet increased demand in specific growth or need areas by 2035.	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (percent increase in storage, number of new multipurpose small lakes)</li> </ul>	<ul style="list-style-type: none"> <li>• May want to review and consider goal as drafted by the Verdigris team: “Ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050”</li> </ul>
Reduce the amount of freshwater used in oil and gas completion operations by 4% annually.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
Work with oil and gas industry, beginning in 2040, to have 10,000 barrels a day of fresh water to be recycled from oil production for regional use in the Red Hills.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>

<b>Red Hills Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>The KWA discussed the potential role of water banking to address flexibility managing water resources within a region. The KWA recommends the teams provide feedback to the KWA to support developing a broader regional goal related to water banking.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<b>What's Great?</b>

**Notes from May 20<sup>th</sup> Meeting for the Red Hills Region:**

KWA expressed concurrence on the inclusion of a goal to increase storage such as through a multipurpose small lake.

KWA members asked questions related to the oil and gas goals. Such as ways to encourage the industry to use more nonpotable water and whether or not the area is experiencing issues with the enforcement of oil and gas lines.

Members asked whether 2040 was an ambitious enough date to target the use of reduced fresh water use in the oil and gas industry.

**GREAT BEND PRAIRIE REGION**

**Guiding Principle:**

Ensure regulations and programs put into place are reviewed to ensure various water use groups are not adversely affected by regulations and programs intended for an individual water use group.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Work towards sustainability of watersheds so that flood control capacity is maintained while maintaining streamflow to meet downstream water needs.</p>	<ul style="list-style-type: none"> <li>• Add specific measurable criteria (percentage of land in region controlled by watershed structures, number of new watershed structures, all watershed structures will meet their scheduled maintenance and rehabilitation schedules)</li> <li>• Add time-bound criteria (by 2025, as assessed every five years)</li> </ul>	<ul style="list-style-type: none"> <li>• Add specific measurable criteria so we can demonstrate success (specific timeline)</li> </ul>
<p>Maintain 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.</p>	<ul style="list-style-type: none"> <li>• Add time bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>• This may also be a suitable statewide goal</li> </ul>
<p>Enhance the monitoring of poor quality water, such as that in salt water disposal lines and the high sodium levels in the Rattlesnake Creek as it flows into the Arkansas River, to ensure that contamination of fresh water sources does not occur as well as to stop and reverse further contamination of fresh water sources. Use mapping techniques to check progress; program in place by 2020.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• These concepts may be best incorporated into lower quality sources of water strategies and action items in Vision</li> <li>• Recommend KDHE and KCC meet to discuss this issue and report back to KWA</li> </ul>

**GREAT BEND PRAIRIE REGION**

**Guiding Principle:**

Ensure regulations and programs put into place are reviewed to ensure various water use groups are not adversely affected by regulations and programs intended for an individual water use group.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Initiate research and development of feed wheat as an alternative feed source within the Great Bend Prairie Planning Region. Technology transfer from this research would have benefits in areas of Kansas where water is not available for production of water-intensive crops. Dual research program: plant breeding and livestock feeding. Achieve large scale feeding trials by 2025.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
<p>Achieve water use sustainability within the Great Bend Prairie Regional Planning Area by 2025.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
<p>Facilitate new business creation and relocation from areas which water use is not sustainable to the Great Bend Prairie Regional Planning Area to retain overall economic benefit to Kansas.</p>	<ul style="list-style-type: none"> <li>• Add results-oriented criteria (economic production, new businesses recruited to region)</li> <li>• Add time-bound criteria</li> <li>• Add specific measurable criteria (number of new business relocated to region)</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend converting this goal to a guiding principle</li> </ul>

**Great Bend Prairie Region  
General Feedback from the KWA**

**Education Feedback from the KWA**

- Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.
- Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?

**What's Missing?**

- A discussion of water transfers and the role on accessing impacts to the region's future available water supply.

**What's Great?**

**Notes from May 20<sup>th</sup> Meeting for the Great Bend Prairie Region:**

KWA members discussed whether the team discussed the need for additional storage such as multipurpose small lakes in the region. The regional goal team chair noted there are not many suitable sites in the region for an impoundment because of the sandy soils.

KWA members asked questions related to whether or not the area is experiencing issues with the enforcement of oil and gas lines. The regional goal team chair noted this is a concern, especially in areas where aging lines cross cropland and are very close to the surface.

The regional goal team chair discussed the role of water banking and setting a value on water as an effective tool for water management and conservation. He noted that water banking could be a tool to help areas of decline recovery and stabilize.

**EQUUS-WALNUT REGION**

**Guiding Principle:**

The Equus-Walnut Regional Goal Leadership Team recognizes that education at all levels is the highest priority for long-term success. Proper and adequate funding for educational resources is essential to ensure success in achieving the water supply goals for this region. An overarching goal is that every Kansan in the region should know the water resources in the region, the dangers potentially impacting the resource, and the value of and the actions necessary to protect it. The Goal Leadership Team supports promoting good stewardship, conservation and improved efficiency, balanced with economic growth, as tools towards achieving the goals described below.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
Achieve and maintain sustainable balance of groundwater withdrawals with annual recharge in the Equus Beds Aquifer by 2020. Ensure safe yield and recharge rate calculations in the Equus Beds Aquifer are accurate through a district wide, integrated groundwater and surface water model by 2018.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>No recommended changes</li> </ul>
Initiate actions immediately to protect the natural water quality of the Equus Beds Aquifer and remediate groundwater contamination. Assess progress towards success every ten years with a goal of remediation by 2050.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>No recommended changes</li> <li>Initiate actions are fairly vague, may need more specificity</li> </ul>
Ensure reservoir storage capacity exceeds the original design life and supports the water supply needs.	<ul style="list-style-type: none"> <li>Add time-bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>Recommend using Verdigris goal as an example: Ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050</li> </ul>
Reduce the rate of sedimentation and nutrient loading through the encouragement of best management practices (BMPs) on 50% of the high priority acres in the watershed above water supply reservoirs as assessed every five years. Ensure practices are sustained and maintained for the long-term and priorities are reassessed every five years.	<ul style="list-style-type: none"> <li>Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>No recommended changes</li> </ul>

**EQUUS-WALNUT REGION**

**Guiding Principle:**

The Equus-Walnut Regional Goal Leadership Team recognizes that education at all levels is the highest priority for long-term success. Proper and adequate funding for educational resources is essential to ensure success in achieving the water supply goals for this region. An overarching goal is that every Kansan in the region should know the water resources in the region, the dangers potentially impacting the resource, and the value of and the actions necessary to protect it. The Goal Leadership Team supports promoting good stewardship, conservation and improved efficiency, balanced with economic growth, as tools towards achieving the goals described below.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Thoroughly assess and develop the best use of the available groundwater and surface water resources. Investigate alternative uses of non-potable water in the planning region. Use these assessments in educational programs and as planning tools by 2018. Reassess every five years.</p>	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria</li> </ul>	<ul style="list-style-type: none"> <li>• KWA supports this concept and sees this goal as development of a water supply master plan for the region. While reassessing every five years is good, the plan needs to be long-term</li> </ul>
<p>While focused on the preservation of our water resources agricultural water users will double the value of irrigation based production over the next 50 years. Coordinate with Public/Private Research and Development programs to develop less water and nutrient intensive crops. Provide incentives for operators to implement irrigation efficiency improvements immediately. Increase efforts to implement water conserving agricultural production practices utilizing no-till methods, cover cropping systems and a rangeland cedar tree management program.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Appreciate the focus on value and economic growth</li> </ul>

<b>Equus-Walnut Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• The complexity of the water supply resources and issues in this region warrant a more in-depth discussion with the KWA at a future date.</li> <li>• The KWA discussed the potential role of water banking to address flexibility managing water resources within a region. The KWA recommends the teams provide feedback to the KWA to support developing a broader regional goal related to water banking.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>• Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>• Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>• Team may consider adding a goal related to conservation of industrial water use.</li> <li>• What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Great?</b>

**Notes from May 20<sup>th</sup> Meeting for the Equus-Walnut Region:**

Members discussed the role of cover crops in reducing sedimentation. The Equus-Walnut chair noted cover crops and changes in crop rotations may improve field efficiencies.

KWA members asked whether industrial water use was discussed and recommended a specific goal to address industrial and municipal use.

KWA members discussed whether sustainability could be achieved through the entire Equus Beds aquifer.

**UPPER REPUBLICAN REGION**

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Develop and adopt a water conservation management plan that provides maximum flexibility while reducing overall actual use, in concert with GMD 4, to extend the aquifer life and economic well-being by January 1, 2017. Utilize a time-phased implementation approach, not less than 2 years or greater than 5 years, to phase in conservation measures to lessen economic impacts and allow user transition. Conservation Plan shall address all types of use while considering flexibility tools and overall actual reduction.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>
<p>Enhance current efforts on education of all water users for all age groups on sources of supply, quantity of supply, best management practices, etc. to help stakeholders conserve and extend.</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria</li> <li>• Add more specific measurable criteria (3-year water education program targeted to youth, minimum number of education workshops)</li> <li>• Add more results oriented (evaluate impact on citizen awareness, assess impact on water conservation)</li> </ul>	<ul style="list-style-type: none"> <li>• See education feedback from KWA</li> </ul>
<p>Republican River Compact administration should be encouraged to maintain compliance in the South Fork Republican River.</p>	<ul style="list-style-type: none"> <li>• Add specific measurable criteria</li> <li>• Add time bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>• May consider a statewide goal to address Interstate compacts.</li> <li>• No recommended changes</li> </ul>
<p>Increase utilization and adoption of water conservation technology and practices by 10% by 2020. Actively seek annual funding to ensure successful achievement of goal.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended changes</li> </ul>

UPPER REPUBLICAN REGION

Goal as Recommended by Regional Goal Leadership Team	SMART Criteria Feedback	KWA Feedback
<p>Encourage the state to coordinate with the USDA Risk Management Agency (RMA), as well as our Congressional delegation and neighboring states, to develop common sense tools for crop insurance that encourage water conservation and have such tools and policies available by 2016.</p>	<ul style="list-style-type: none"><li>• Add specific measurable criteria (limited irrigation crop insurance will be available for Kansas producers by 2016)</li></ul>	<ul style="list-style-type: none"><li>• This may be appropriate as a statewide goal. Vision addresses this issue as an action item</li><li>• No recommended changes for regional goal. KWA recommends continued feedback on region's needs as it relates to crop insurance</li></ul>

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<b>Upper Republican Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>As the KWA reviewed the goals proposed by the four western regional goal leadership teams over the Ogallala, there was considerable discussion about developing ambitious, measurable goals to address declines in the aquifer while sustaining the local economy. Some members argued for the goal of sustainability, but others noted the devastating impact this would have on the local and state economy. This discussion led the water authority to note the importance of clear, measurable goals to extend the life of the aquifer.</li> <li>The KWA discussed the potential role of water banking to address flexibility managing water resources within a region. The KWA recommends the teams provide feedback to the KWA to support developing a broader regional goal related to water banking.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>Addressing opportunities to capture additional sources of supply. For example, in times of excess rainfall and streamflow- can there be a goal to capture that opportunity to start or make use of the excess water? How can we increase supply for the region?</li> </ul>
<b>What's Great?</b>

**Notes from May 20<sup>th</sup> Meeting for the Upper Republican Region:**

Members discussed whether the team had sufficient information to establish more numerical and time based criteria for their recommended goals. Regional goal team chair expressed the need for a means to measure the impact of a water use reduction. If an irrigator cuts water use by 20%, how much would it extend the available supply? Would like to have that tool available at a level where individuals could ask those questions and receive very localized responses.

Members asked what additional tools are needed or how can the existing tools be more useful to assist in the implementation of these goals. Chair noted the need to build more trust through education and outreach on the tools. There is a perception that some of the voluntary tools such as LEMAs are a mandated cut.

**UPPER SMOKY HILL REGION**

**Guiding Principles:**

Achieving sustainability is defined for this planning region as ensuring the future health and success of the community, environment, economy and the people of the region. Implementation of these goals should not purposefully or unintentionally penalize good stewards.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Develop a water reduction plan and begin implementation by January 2016. Short term: Reduce the rate of depletion of the aquifer within five years to sustain the economy, but begin implementation of conservation immediately. Long term: By evaluating success every five years, determine if conservation measures are achieving a reduced rate of depletion. (Rationale: Within each five year evaluation period new technologies and crop varieties as well as additional sources of supply will be more and more available.)</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• May consider adding a metric to asses sustaining the economy</li> </ul>
<p>Reduce irrigation use by 25% based on recent average pumping history per water right. Allow water right transfers and other flexibilities as long as a net reduction is achieved. In addition, annual water use for all irrigation users will not exceed net irrigation requirement for that county. (For example, if an individual has historically applied 24 inches and is reduced by 25% (18 inches) and NIR for their county is 14 inches, 14 inches is the conservation goal for that individual.)</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria (within the next ten years, by 2020)</li> </ul>	<ul style="list-style-type: none"> <li>• Add a timeline</li> <li>• How do we increase supply; small lakes</li> </ul>
<p>All municipal users within the planning region will be at or below the regional 2015 average gallons per capita per day (GPCD) within the next five years. All municipal users as defined by the Kansas Water Appropriation Act in planning area will follow best management practices and implement a conservation plan.</p>	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No recommended change</li> <li>• This could be a model goal for other regions to consider</li> </ul>

**UPPER SMOKY HILL REGION**

**Guiding Principles:**

Achieving sustainability is defined for this planning region as ensuring the future health and success of the community, environment, economy and the people of the region. Implementation of these goals should not purposefully or unintentionally penalize good stewards.

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Maximum water use per head will be maintained as defined by the Kansas Water Appropriation Act. Stockwater allocations as defined by Kansas Water Appropriation Act will implement best management practices and be as efficient as possible. Measure the implementation of this goal by increased adoption of practices (overflow reuse, etc.) and the number of stockwater users with best management practice plans.</p>	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (increase adoption of practices by 15%, all stockwater users will have a best management plan)</li> <li>• Add time-bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Add measurable aspect to goal such as the number of practices adopted</li> </ul>
<p>Industrial users and all other beneficial uses of water will develop best management practice plans to be as efficient as possible. Measure the implementation of this goal by increased adoption of practices.</p>	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (all industrial users will have a best management practice plan, increase adoption of practices by 15%)</li> <li>• Add time bound criteria</li> </ul>	
<p>Ensure water reduction plan includes a strict enforcement matrix.</p>	<ul style="list-style-type: none"> <li>• Add time-bound criteria</li> <li>• Add measurable criteria (all conservation plans will include a compliance and enforcement plan, update and enforce water right violation penalty matrix)</li> <li>• Add result oriented criteria (all water right owners are operating within the terms and conditions of their appropriation and conservation plans)</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend making this a guiding principle rather than a goal.</li> </ul>

<b>Upper Smoky Hill Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>As the KWA reviewed the goals proposed by the four western regional goal leadership teams over the Ogallala, there was considerable discussion about developing ambitious, measurable goals to address declines in the aquifer while sustaining the local economy. Some members argued for the goal of sustainability, but others noted the devastating impact this would have on the local and state economy. This discussion led the water authority to note the importance of clear, measurable goals to extend the life of the aquifer.</li> <li>The KWA discussed the potential role of water banking to address flexibility managing water resources within a region. The KWA recommends the teams provide feedback to the KWA to support developing a broader regional goal related to water banking.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>Addressing opportunities to capture additional sources of supply. For example, in times of excess rainfall and streamflow- can there be a goal to capture that opportunity to start or make use of the excess water? How can we increase supply for the region?</li> </ul>
<b>What's Great?</b>
<ul style="list-style-type: none"> <li>Team proposed a measurable reduction in irrigation use. Commend the Upper Smoky Regional goal team for proposing strong, measurable goals. Municipal goal measuring against the 2015 average GPCD could be a model goal for other regions.</li> </ul>

**Notes from May 20<sup>th</sup> Meeting for the Upper Smoky Hill Region:**

KWA members asked for clarification on the strict penalty matrix goal. The regional goal leadership team chair expressed this was important to the team, but there were no clearly defined aspects of that goal discussed. Some ideas included fees.

KWA members discussed the role of LEMAs in conservation and whether there is any talk of more individual water right owners developing conservation plans. The regional goal leadership team noted yes, there is more discussion of individual conservation plans, but more need to participate holistically to have an overall impact on the aquifer.

Members of the KWA asked what additional information did the regional goal team wish they had when developing their recommended goals?

**UPPER ARKANSAS REGION**

**Guiding Principles:**

- Respect private property rights – first in time, first in right
- Voluntary, incentive-based solutions should be highest priority. Conservation activities should result in the availability of added flexibility
- Economics will serve as the best driver for future conditions
- Locally developed solutions, not government-defined goals, are the best alternative
- Recognize diversity of resource conditions across planning region
- Cooperation with neighboring states necessary to ensure river flows and extending the life of the Ogallala
- Rivers flowing into Kansas must be highly valued. Compacts need to be enforced

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>Extend the usable lifetime of the Ogallala Aquifer for future generations in the planning region through the promotion of multiple Local Enhanced Management Areas (LEMAs), Water Conservation Areas (WCAs) and other incentive-based programs. Slowing the depletion of the Ogallala Aquifer in the planning region maximizes opportunity to make use of emerging technologies. Encourage conservation through added flexibility. Find additional sources of water for irrigation and recharge. Increase the opportunity to use wastewater for other beneficial uses. Increase education of aquifer conditions.</p>	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (extend the usable lifetime by a minimum of 25 years, slow the depletion of the aquifer by 25%)</li> <li>• Clarify time-bound (future generations = 30 years)</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend adding measurable criteria. Team may consider looking at goals proposed by Upper Smoky team as a measurable example. Goal team chair may have additional measurable examples (% of area participating in a LEMA, WCA, etc.)</li> </ul>
<p>Continue to maintain flows along the Upper Arkansas River through management of river flows and maintenance of open channel conveyance through tamarisk control.</p>	<ul style="list-style-type: none"> <li>• Add specific measurable criteria (flows at certain gages, percent of tamarisk controlled)</li> <li>• Add time bound criteria (on a five year average, by 2030)</li> </ul>	<ul style="list-style-type: none"> <li>• May consider a statewide goal related to interstate water issues</li> <li>• Recommend splitting tamarisk into a separate goal.</li> </ul>

**UPPER ARKANSAS REGION**

**Guiding Principles:**

- Respect private property rights – first in time, first in right
- Voluntary, incentive-based solutions should be highest priority. Conservation activities should result in the availability of added flexibility
- Economics will serve as the best driver for future conditions
- Locally developed solutions, not government-defined goals, are the best alternative
- Recognize diversity of resource conditions across planning region
- Cooperation with neighboring states necessary to ensure river flows and extending the life of the Ogallala
- Rivers flowing into Kansas must be highly valued. Compacts need to be enforced

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
<p>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.</p>	<ul style="list-style-type: none"> <li>• Add measurable goal to the reduction of GPCD</li> <li>• Add time bound criteria</li> </ul>	<p>KWA recommends adding measurable criteria such as GPCD. May want to reference Upper Smoky municipal goal: “All municipal users within the planning region will be at or below the regional 2015 average gallons per capita per day (GPCD) within the next five years. All municipal users as defined by the Kansas Water Appropriation Act in planning area will follow best management practices and implement a conservation plan.”</p>
<p>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.</p>	<ul style="list-style-type: none"> <li>• Add measurable goal to the reduction of production usage</li> <li>• Add time bound criteria</li> </ul>	<ul style="list-style-type: none"> <li>• See education feedback from KWA</li> </ul>

<b>Upper Arkansas Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>As the KWA reviewed the goals proposed by the four western regional goal leadership teams over the Ogallala, there was considerable discussion about developing ambitious, measurable goals to address declines in the aquifer while sustaining the local economy. Some members argued for the goal of sustainability, but others noted the devastating impact this would have on the local and state economy. This discussion led the water authority to note the importance of clear, measurable goals to extend the life of the aquifer.</li> <li>The KWA discussed the potential role of water banking to address flexibility managing water resources within a region. The KWA recommends the teams provide feedback to the KWA to support developing a broader regional goal related to water banking.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>Addressing opportunities to capture additional sources of supply. For example, in times of excess rainfall and streamflow- can there be a goal to capture that opportunity to start or make use of the excess water? How can we increase supply for the region?</li> </ul>
<b>What's Great?</b>

**Notes from May 20<sup>th</sup> Meeting for the Upper Arkansas Region:**

KWA members asked questions and discussed the feasibility of adding more metrics and time-bound criteria to the goal of extending the usable life of the Ogallala and reducing use. For example, it was asked whether a milestone such as reduce declines by 10% by 2020 was possible. Regional goal team chair noted even if a reduction gains only 5 years, the amount of available technologies may have increased sufficiently in that timeframe to make a big difference.

Discussed potentially adding a gallons per capita per day measurement on municipal use in a goal. Suggested one option would be to have all municipalities in the region come together on a goal and incentivize less water consumptive yards, etc.

**CIMARRON REGION**

**Guiding Principles:**

- All goals and solutions towards achieving the goals must be flexible
- Voluntary, incentive and market based solutions are preferred measures for achieving the goals
- Ensure we do not diminish the economic return for all. Overarching goal is to maintain or grow the region’s economy

<b>Goal as Recommended by Regional Goal Leadership Team</b>	<b>SMART Criteria Feedback</b>	<b>KWA Feedback</b>
Extend the usable lifetime of the Ogallala Aquifer in the region through technology adoption (irrigation, industrial, municipal, etc.), new crop varieties and conservation for all uses and for many generations.	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (extend the usable lifetime by a minimum of 25 years)</li> <li>• Clarify time-bound (many generations = 30 years)</li> </ul>	<ul style="list-style-type: none"> <li>• May consider looking at Upper Smoky for examples of measurable criteria</li> </ul>
Reduce the rate of decline of the Ogallala Aquifer in the region through voluntary, incentive-based conservation as assessed every five years.	<ul style="list-style-type: none"> <li>• Add more specific measurable criteria (reduce the depletion of the aquifer by a minimum of 25%)</li> </ul>	<ul style="list-style-type: none"> <li>• KWA recommends more measurable, specific and time-bound criteria</li> </ul>
If individuals elect to conserve then they would be afforded flexibility (e.g. - allowing quantities to be moved, water bank movement, water conservation areas, etc.) Individuals may choose to remain with current water use but not be afforded the flexibilities.	<ul style="list-style-type: none"> <li>• Add measurable criteria (number of water right holders enrolled in conservation programs with flexible management options)</li> <li>• Add time-bound criteria</li> </ul>	
As measured through increase in adoption by 50% as assessed each five years, promote the adoption of irrigation efficient technology and invest in university research to evaluate the effectiveness of such technology and crop varieties to develop voluntary incentives and tools to economically reduce water usage. Recommended strategy to achieve Goal - Increase adoption through education by those who are currently using the technology.	<ul style="list-style-type: none"> <li>• Meets all SMART criteria</li> </ul>	<ul style="list-style-type: none"> <li>• May consider adding to this goal to measure success as the percentage of water rights enrolled in a LEMA, WCA, etc</li> <li>• Recommend splitting “investing in research” into a separate goal</li> </ul>

<b>Cimarron Region</b>
<b>General Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>As the KWA reviewed the goals proposed by the four western regional goal leadership teams over the Ogallala, there was considerable discussion about developing ambitious, measurable goals to address declines in the aquifer while sustaining the local economy. Some members argued for the goal of sustainability, but others noted the devastating impact this would have on the local and state economy. This discussion led the water authority to note the importance of clear, measurable goals to extend the life of the aquifer.</li> <li>The KWA discussed the potential role of water banking to address flexibility managing water resources within a region. The KWA recommends the teams provide feedback to the KWA to support developing a broader regional goal related to water banking.</li> </ul>
<b>Education Feedback from the KWA</b>
<ul style="list-style-type: none"> <li>Education goals will be addressed by Education Task Force at a statewide level; however, for now maintain regional educational goals as feedback for the Task Force.</li> <li>Questions to ask each region- Education Task Force: What are the priority education needs in your region? How do we measure success? What are the best methods in your region? What activities already exist in your region? What groups should be involved? What is the most effective delivery method?</li> </ul>
<b>What's Missing?</b>
<ul style="list-style-type: none"> <li>KWA recognizes it is challenging to define a measurable goal for the Ogallala, but they encourage the team to attempt to define a specific, measurable goal so we can measure success.</li> </ul>
<b>What's Great?</b>

**Notes from May 20<sup>th</sup> Meeting for the Cimarron Region:**

KWA members asked questions and discussed the feasibility of adding more metrics and time-bound criteria to the goal of extending the usable life of the Ogallala and reducing use. For example, it was asked whether a milestone such as reduce declines by 10% by 2020 was possible. Cimarron chair noted that setting a numerical goal is not valuable if it can be demonstrated that it makes sense economically and will have a positive impact on the resource. For example, a producer or dairy will cut water use by 50% if it is economically feasible.

It was discussed that areas of the Cimarron region still have significant saturated thickness and projected usable life. The Chair advocated this is reason for promoting the role of technology and efficiencies rather than relying on reductions in use.

What more can the KWA do to assist in the implementation of these goals? Chair responded it is important to allow a farmer make his own economic plan to use his water with flexibility.

Members of the KWA asked what additional information did the regional goal team wish they had when developing their recommended goals? The Cimarron chair noted the team had access to maps and model projections; however, it was disheartening to see the relative impact of reduced use on the aquifer conditions.