Kansas RAC Goals & Action Plans Discussion

June 24, 2019

Kansas Water Office

Purpose

- Discuss Timeline
- Review Goals and Action Plans
- Discuss Progress
- Discuss Feasibility
- Discuss Possible Changes
- KWO Provides Information

Kansas Water Office

Timeline

- Spring 2019: RAC Progress Report
- Late Spring-Early Summer 2019: **RACs** discuss budget & RAC goals & action plans
- Late Summer-Early Fall 2019: Public Input Meetings
- Fall 2019-Winter 2020: **RAC** provides recommendations
- Winter 2020-Summer 2020: Reorganize & incorporate Vision & KWP. **RACs** provide input to KWA on priority projects.

Kansas Water Office

Goal #1

- **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.**

Kansas Water Office

Action Plans

- 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.
  - The Kansas Water Office should conduct an analysis of the impacts of the draw downs at Milford, Tuttle Creek and Perry reservoirs due to Missouri River navigation support. The results of this study will inform the decision as to whether or not to accelerate the purchase of the remaining storage at the aforementioned reservoirs.
  - Working with Kansas River Water Assurance District, KDHE, KDWPT and other stakeholders, determine the amount of storage necessary within Milford and Perry reservoirs to meet instream purposes through controlled releases.
  - Complete necessary background work to support a request to reallocate storage from water supply to water quality in Milford and Perry reservoirs.
  - Determine amount of additional annual costs for calling into service the remaining water supply storage not needed to meet instream purposes and request full funding. When funding is secured, call into service storage not to be included within reallocation request.
  - Request reallocation of remaining storage from water supply to water quality.

- By 2025, evaluate the ability to raise the conservation pool in each federal reservoir.
  - Using existing modeling, determine amount of additional yield that can be gained in each reservoir by permanently raising the conservation pool by 1, 2 and 3 feet.
  - Working with Kansas River Water Assurance District, KDHE, KDWPT, KDA-DWR and other stakeholders, begin NEPA evaluation of impacts and benefits at the reservoirs with increased pool level
  - Work with the U.S. Army Corps of Engineers (USACE) to determine updated costs of reallocation and purchase of storage.
  - Secure federal funding for reallocation study.
  - Where feasible and appropriate based on cost and impact evaluation, request the USACE reallocate storage from flood control to water supply storage.

Goal #2

- By 2050, explore additional storage possibilities such as construction of multipurpose lakes so that new water sources can be brought online.

Kansas Water Office

Action Plans

- Use the existing Kansas Water Office "*Basin Restoration Approach: Kansas Lower Republican"* as a guide for planning future storage in the Region.
- Maintain an updated inventory of existing reservoir sites not built, along with pertinent data.
- Contract with a consulting firm to determine the feasibility of building larger reservoir sites based on the "New Site Selection Criteria" from the "*Basin Restoration Approach: Kansas Lower Republican",* with the addition of the potential sedimentation rate and upstream protection practices.
- Working with KDA-DOC, NRCS and local watershed districts, identify existing watershed structures that are in need of restoration and have potential to be made larger and provide supplemental water supply.
- Working with KDA-DOC, NRCS and local watershed districts, identify watershed dam sites that were not constructed, but could be built to provide supplemental water supply.
- KWO shall develop criteria to determine whether these sites should be expanded or built based on a broad range of issues.
- Seek partnership and funding opportunities to rehabilitate existing watershed reservoirs and/or construct new reservoirs that meet the established criteria.

Kansas Water Office

Goal #3

- **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.**

Kansas Water Office

Action Plans

- Utilize the Kansas Basin Watershed Management System (KBWM System) to reduce the overall sediment rate by 10 percent for the entire Kansas basin, not per reservoir, over 10 years.
  - All new funding allocated to meet RAC sedimentation reduction goals will utilize the KBWM System. See the attached document for a description of the KBWM System as well as a process chart illustrating how it functions.
  - KBWM System utilizes and provides for the implementation of best management practices (BMPs) related to the reduction of sediment loading, which include a large range of measures. Approval and recommendation of BMPs for sediment reduction will be determined by the KBWM Interagency Committee (refer to KBWM System description).
  - This is accomplished by funding a minimum of $5 M annually to the System specifically for the reduction of sedimentation in the Kansas basin. At this funding rate, the goal is expected to be achieved within 30 years.
- Within five years, all state and federal lands surrounding each reservoir in the watershed must have implemented best management practices as identified through the KBWM System.
- Individual WRAPS' plans and conservation district goals must include the concept of reservoir sustainability with the goal of maintaining storage capacity in Kansas Basin reservoirs.
- Reservoir sustainability and reduction of sedimentation must be added as primary goals of the Kansas WRAPS Work Group.
- The KBWM System will allow for the modification or inclusion of additional sedimentation goals as they are developed by Regional Advisory Committees (RACs)
- Establish programs with local universities to leverage relevant departments for expertise and student resources.
- Existing funding allocations will continue to be distributed and managed as they have been historically with an enhanced focus on communication and coordination among funding providers. This increase in communication and coordination is an anticipated byproduct of the KBWM System.
- Additional funding for sedimentation through the KBWM System is critical to meeting the Kansas RAC Sedimentation Goals.
  - One key element of additional funding will be to secure adequate technical assistance advisors and providers for timely delivery and implementation of recommended best management practices.
  - Additional technical assistance at the state level must be developed, even with the current level of funding. NRCS currently provides technical assistance, but due to current funding and decreased staffing capacity, NRCS cannot always meet the state's implementation schedule. With additional state technical assistance providers, NRCS can dovetail and assist with projects, but projects will move forward in the event NRCS is not available. This encourages collaboration between the two groups, and reduces reliance on NRCS.
- Achieving the stated goals requires the broadest participation possible. To affect a science-based solution, it is important that all relevant lands within a specific watershed be analyzed to assess their issues, determine their priority with respect to a defined problem (e.g. sedimentation of reservoirs) and identify and prioritize solutions. This may be a long-term process.
- The Kansas RAC encourages landowners in the Kansas Basin to develop and implement voluntary Comprehensive Conservation Plans for lands in the areas of resource concern.
- Education about the KBWM System and its goals and functions should be included in the Governor's Water Vision Education and Outreach Program.
- Specific educational and outreach programs, resources and items shall be created, distributed and taught throughout the Kansas Basin focusing on the specific goals of the Kansas Basin.

Goal #4

- **By 2035, reduce per capita water consumption by 10 percent by 2035 through conservation, education and pricing mechanisms.**

Kansas Water Office

Action Plans

- The Kansas Municipal Water Conservation Plan Guidelines approved by the Kansas Water Authority (KWA) in 2007 currently recommend that a utility implement a water management review when UFW exceeds 20% for a 4-month period. The average UFW for all utilities in the region in 2014 was 16.6%. The guidelines for the Kansas Region should raise the bar higher by encouraging utilities to undertake the review at 15% for a 4-month period, monitored monthly. The Kansas Water Office (KWO) should ensure technical assistance to conduct those management reviews when necessary, and technical assistance to address acute UFW.
  - Historically, UFW has been difficult to track, as water usage was not metered consistently. By 2017, however, this will change. The Kansas Department of Agriculture, Division of Water Resources required the installation of a flowmeter or other suitable water measuring device on all non-temporary, non-domestic water uses in 2014, with meter installation required for all water users by the end of 2016 and compliance required by the end of 2017. All public water suppliers currently meter their source of supply; a small number, however, remain that do not meter individual customer water usage. The RAC recommends that all public water suppliers implement customer water metering at the earliest opportunity.
  - The water metering requirement and customer metering will allow for all types of water usage to be tracked and analyzed by 2018. The most important short term benefit of the installation of water flow meters is that it will allow for appropriate accounting of water usage. This accounting not only allows for the identification of the location and nature of leaks in the system, but the information gathered is also critical to determining the nature of water usage and where conservation measures can be wisely implemented. This information will allow communities and individual users to strategize appropriate water usage and save themselves and/or the community water and money over time.
- Over time, large users should be encouraged to sub-meter which will improve their understanding of the nature of their water consumption and allow for more effective implementation of wise water use measures.
- The KWO should educate communities about the availability of funding for utilities to conduct assessments of distribution and transmission systems and develop a proactive replacement and repair schedule to minimize water loss within the system. Utilities should, where feasible, collaborate with larger utility partners in the area for assistance with assessments. The KWO should also actively educate communities about the availability of funding for investments in infrastructure improvements to minimize water loss for all water utilities in the Kansas Region.

Action Plans

- **Action Plan Section 2 - Water Conservation Plans**
- The KWO should evaluate current conservation plan guidelines adopted by the KWA in 2007, to ensure they adequately address the Vision and Kansas Region goals, and provide assistance in updating plans as necessary.
- The KWO should work with public water suppliers in the region to ensure that all have an approved water conservation plan consistent with the updated Guidelines approved by the KWA that reflect the Vision and Kansas Region goals.
- The KWO should work with public water suppliers that have experienced drought vulnerability in the last 10 years to ensure they have robust drought response plans, with meaningful and implementable triggers and responses.
- The KWO should develop a Best Management Practices (BMP) Conservation Guide for communities, highlighting available resources and success stories. This BMP Conservation Guide shall be updated bi-annually.
- The Kansas RAC recommends that communities throughout the Kansas Region adopt wise water use in public buildings and on public grounds as identified in the BMP guide.
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- **Action Plan Section 3 - Education**
- The KWO should make use of existing educational resources from federal, state and non-governmental organizations such as the EPA's WaterSense program and WaterSense partners, and materials produced by the American Water Works Association and the Alliance for Water Efficiency.
- The Kansas RAC supports the mission of the Kansas Water Vision Educational Task Force. Any education efforts should be carried out in collaboration with the Kansas Water Vision Education Program.
  - The Kansas RAC will submit the following recommendations to the Kansas Water Vision Educational Task Force.
    - Develop a strategic, unified messaging campaign tailored to the needs of each region that is executed across the state and through all relevant agencies through coordinated messaging methods.
    - Develop a robust and comprehensive website that will serve as a cornerstone of the education campaign.
    - Establish a shared resource center for water suppliers and major users to connect regionally and share best management practices.

Kansas Water Office

Action Plans

- **Action Plan Section 4 – Incentive-based conservation practices**
- The Kansas RAC will continue to work with stakeholders to research and explore other opportunities to encourage wise use of water in the Kansas Region. The following items are examples of the type of opportunities the RAC will investigate.
- Consider incentive based conservation practices. Electric utilities use "throughput disincentives" authorized by the Kansas Energy Efficiency Investment Act (KEEIA) to recover revenue lost by conservation measures; something similar might be appropriate for water utilities.
- Establish criteria that encourage Low Impact Development (LID) that focuses on lowering water use in new developments.
  - Direct the KWO to work with cities to adopt LID design criteria with the goal that city ordinances and any other requirements would encourage less water-intensive fixtures, structures and landscape in new developments.
  - Direct the KWO to award and recognize cities and developers who utilize LID that focuses on water conservation
  - Direct the KWO to proactively promote LID concepts to land developers.
- Work with utilities to incentivize water efficiency via lower connection rates (or other upfront cost saving incentives) for developers, property and business owners using efficient fixtures, xeriscaping, rain catchment/reuse systems, and other conservation measures.
- Offer tax credits for practices that reduce consumption without reducing production.
  - With respect to agricultural water use, provide property tax credits proportionate to water use reduction on irrigated agricultural lands.
- Consider incentives for recycling of water within an entity or community.
- Develop a rewards and recognition program for successful Kansas conservation activities to highlight communities, individuals, businesses and industry that implement local conservation best management practices successfully.
- Create a private "water audit" certification program such as Leadership Energy and Environmental Design (LEED) to identify individuals achieving highly efficient water use and conservation.
- Promote smart water use in public buildings and on public grounds such as lower volume toilets and reduced lawn watering.
- Fund K-State Extension programming on low or no water use landscaping.

Goal #5

- **After 2020, reduce duration and frequency of harmful algal blooms disrupting recreation in lakes such that blooms last under a week and do not occur until after Labor Day.**

Kansas Water Office

Action Plans

- Utilize the Kansas Basin Watershed Management (KBWM) System to reduce the level of nutrients entering the reservoirs and water supply lakes.
  - All new funding allocated to meet RAC nutrient reduction goals will utilize the KBWM System. See the attached document for a description of the KBWM System as well as a process chart illustrating how it functions.
  - KBWM System utilizes and provides for the implementation of best management practices (BMPs) related to the reduction of nutrient loading, which include a large range of measures. Approval and recommendation of BMPs for nutrient reduction will be determined by the KBWM Interagency Committee (refer to KBWM System description).
  - This is accomplished by a minimum allocation of $1.5 million per year to be directed to BMPs in the Milford Watershed, with a total request of $3 million per year, with the remaining $1.5 million to be distributed throughout the watershed through the KBWM System.
- Within five years, all state and federal lands surrounding each reservoir in the watershed must have implemented best management practices to address harmful algal blooms (HABs) as identified through the KBWM System.
- Individual WRAPS' Plans and local Conservation Districts' goals must include the concept of minimizing nutrient inflow to lakes with the goal of reducing the potential for HABs.
- The reduction of nutrients must be added as a primary focus of the Kansas WRAPS Work Group.
- The Kansas Water Office and the Kansas Department of Health and Environment must coordinate with the US Army Corps of Engineers (USACE) on management of releases during HABs, and provide notice to downstream communities of the level of release.
- Ensure that the Kansas Water Office and KS RAC promote the inclusion of lake communities, downstream public water supply systems, and other water users into HAB meetings and discussions.
- Underscore that the preferred methodology is to use best management practices (BMPs), which include a large range of measures which will be vetted through the KBWM System. BMPs should be prioritized to address HABs.
- Recognize that in the near-term, dollars will need to be spent on treatment of the problem in the lakes (e.g. chemical treatment), but the goal is to shift those dollars upstream to prevention of the problem at the source – which is to prevent nutrients from flowing into the lakes.
- The RAC supports ongoing research for identification and remediation of the causes, prevention and treatment of HABs, including potential in-lake technologies.
- Establish programs with universities to leverage relevant departments for expertise and student resources.
- Achieving the stated goals requires the broadest participation possible. To affect a science-based solution, it is important that all relevant lands within a specific watershed be analyzed to assess their issues, determine their priority with respect to a defined problem (e.g. HABs) and identify and prioritize solutions. This may be a long-term process.
- The RAC encourages landowners in the Kansas Basin to develop and implement voluntary Comprehensive Conservation Plans for lands in the areas of resource concern.
- Education about the KBWM System and its goals and functions should be included in the Governor's Water Vision Education and Outreach Program.
  - Specific educational and outreach programs, resources and items shall be created, distributed and taught throughout the Kansas Basin focusing on the specific goals of the Kansas Basin including the reduction of HABs.
  - Establish a region wide education and communication plan with regard to HABs and include best and worst management practices.

Progress

- Regional Goal Action Plan Implementation

- RAC Action Plan Tracker

Kansas Water Office

Feasibility

- Do the Goals make sense?
- Do the Action Plans make sense?
- Are they accomplishing what they were intended to?
- Are they inline with the Vision?
- Do you agree with the progress?

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Goal #2

- By 2050, explore additional storage possibilities such as construction of multipurpose lakes so that new water sources can be brought online.

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Goal #3

- **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.**

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Goal #4

- **By 2035, reduce per capita water consumption by 10 percent by 2035 through conservation, education and pricing mechanisms.**

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Goal #5

- **After 2020, reduce duration and frequency of harmful algal blooms disrupting recreation in lakes such that blooms last under a week and do not occur until after Labor Day.**

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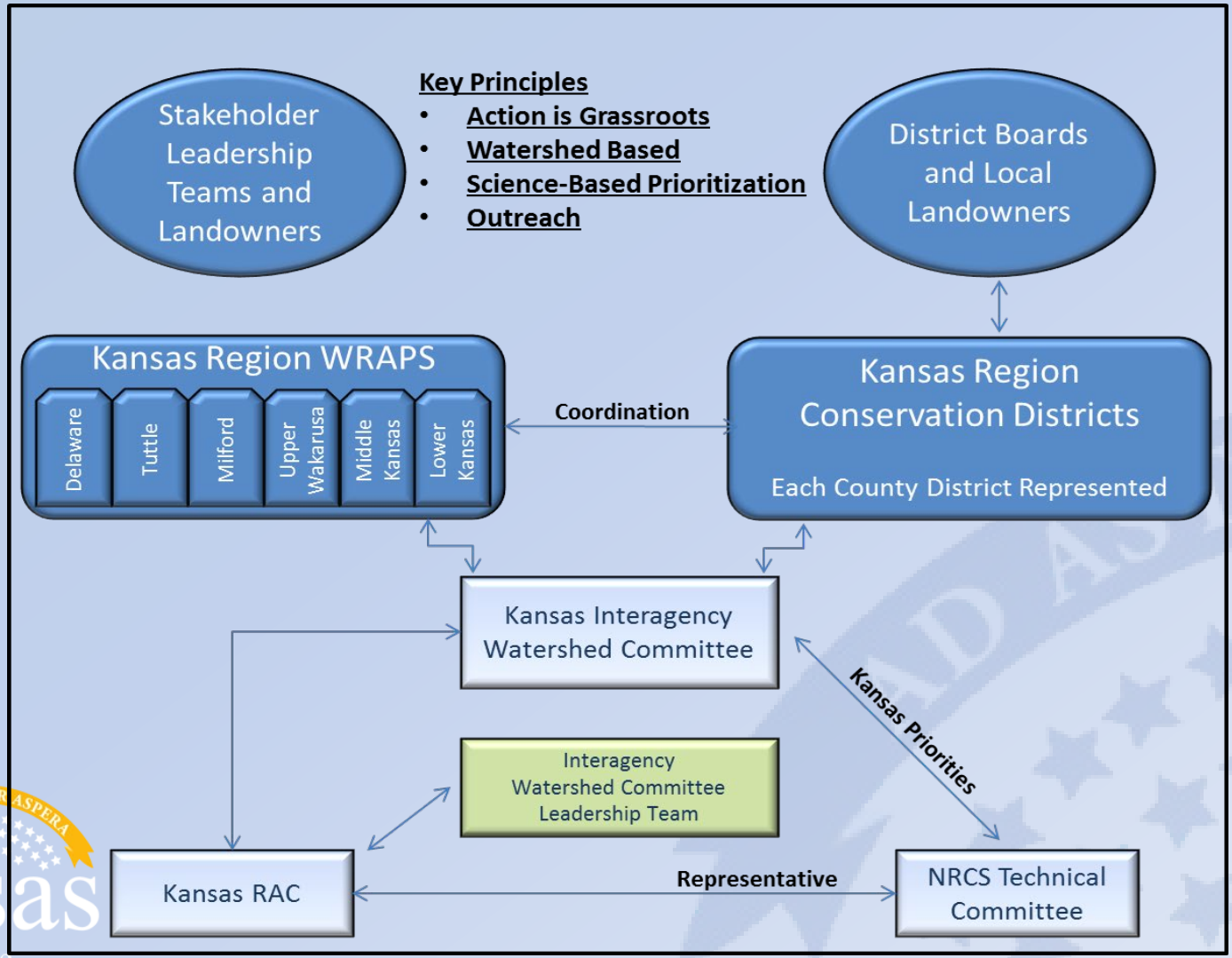
Kansas Basin Watershed Management System



Kansas Water Office

Are we addressing necesssary Water Issues

- Would you make changes to the goals or actions?
- Would you delete any?
- Would you add any?

Kansas Water Office

Next Steps

- Late Summer-Early Fall 2019: Public Input Meetings
- Fall 2019-Winter 2020: **RAC** provides recommendations
- Winter 2020-Summer 2020: Reorganize & incorporate Vision & KWP. **RACs** provide input to KWA on priority projects

Kansas Water Office