



Neosho Regional Advisory Committee Priority Goal #1 Action Plan

Priority Goal #1: 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.

Action Steps

- ❖ The Kansas Water Office (KWO) is directed to work with the Streambank Team (KWO, KDHE, and KDA-DOC) to stabilize all streambank hotspots, as defined by the KWO, by 2025 in the Cottonwood-Neosho Region above John Redmond Reservoir. Funds will need to be created to fund the stabilization of the streambanks each year to complete reaches in order as they proceed from the reservoir.
- ❖ The Kansas Water Office, in cooperation with the Kansas Department of Health and Environment, the Kansas Department of Agriculture-Department of Conservation, and the local WRAPS groups, is directed to treat 80% of priority cropland, as defined by the WRAPS 9 element plans, with no-till practices, such as cover crops. In addition, treat with other sedimentation reduction farming practices, filter strips, terraces, and waterways by 2030 in the Cottonwood-Neosho Region above John Redmond Reservoir. Additional funds will need to be created to fund this action as well.
 - ◇ As a component of this plan a review of the sedimentation rate of John Redmond Reservoir will be evaluated. This evaluation will include scheduling and completing a bathymetric survey every 5 years and installing sedimentation monitoring stations to monitor the sedimentation rate and the progress and benefit of sedimentation reduction practices.
 - ◇ As an additional component, the effectiveness of best management practices for effects on hydrology and reduction of sediment and nutrients will be assessed and the information and education will be provided to those implementing practices. The education and information portion can be accomplished through the implementation of a Water Technology Farm (WTF) that incorporates no-till practices and other agriculture BMPs that address sedimentation, along with a possible streambank stabilization project.
- ❖ To ensure that there are funds available each year a steady funding source must be establish. The best funding source at this time appears to be the issuing of bonds to commence early implementation, and is recommend by the RAC, however, other funding sources are not excluded. Bonds should be sought at an amount no less than 8.5 million/year.



Neosho Regional Advisory Committee Priority Goal #2 Action Plan

Priority Goal #2: 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. Ensure water supply available from storage exceeds projected demand by at least 10% through the year 2050.

- ❖ The Kansas Water Office will continually work with the U.S. Army Corps of Engineers on refining reservoir operations and developing Drought Contingency Plans.
- ❖ A working group will be created that provides input on the pool rises at Marion, Council Grove, and John Redmond Reservoirs. This group will include the KWO, KDWP&T, KDHE, NRCS, USACE, and USFW.
 - ◇ The working group will look at costs associated with the pool rises and the benefits of increased supply.
- ❖ Based on the input from the working group and the cost benefit ratio analysis, the feasibility of the pool rises at Marion, Council Grove, and John Redmond Reservoirs will be determined by 2025. Based on that determination, a reallocation study may be implemented.



Neosho Regional Advisory Committee Priority Goal #3 Action Plan

Priority Goal #3: 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.

- ❖ A working group will be created that provides input on the evaluation of the algal blooms at Marion. This group will include the KWO, KDWP&T, KDHE, NRCS, USACE, and USFW.
- ❖ The working group will look at costs associated with algal blooms at Marion and determine the methods that would lead to a reduction in blooms.
- ❖ Based on the input from the working group and the cost-benefit ratio analysis, the feasibility of algal bloom reduction will be determined.



Neosho Regional Advisory Committee Priority Goal #4 Action Plan

Priority Goal #4: 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.

- ❖ The Kansas Water Office is directed to create a report by 2020 to determine the feasibility of developing additional water storage in the Cottonwood-Neosho Region below John Redmond Reservoir. The report will include possible locations of off-stream storage sites, and other possible sources of supply, including groundwater sources and water from other Regions. The report will also include a cost-benefit analysis of creating additional storage. As part of the report the Grand River Dam Authority will be encompassed into the conversation to discuss supply and funding options.



Neosho Regional Advisory Committee Priority Goal #5 Action Plan

Priority Goal #5: 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.

- ❖ This goal is met as the other goals' plans are implemented.