

Kansas Water Office
900 SW Jackson Street
Suite 404
Topeka, Kansas 66612



RE: Comments regarding the update of the Kansas Water Plan

To Whom It May Concern:

The Kansas Wildlife Federation is concerned over impacts of eroding streambanks and subsequent sedimentation to native wildlife and habitats. Sedimentation is a leading cause of habitat destruction for our native mussels and prairie stream fish, including several federally-protected species including the Neosho mucket (*Lampsilis rafinesqueana*), rabbitsfoot (*Quadrula cylindrica*), Neosho madtom (*Noturus placidus*), and Topeka shiner (*Notropis topeka*).

We also note that with every rainfall that produces runoff in Kansas, water storage capacity in Kansas reservoirs is diminished due to erosion and sedimentation. Most recently the John Redmond Reservoir was partially dredged at a cost of \$20 million; eventually all of our reservoirs will need expensive mitigation for sedimentation, most of which comes from agricultural fields that have no green, growing cover crop during a significant part of the year.

The fact that Kansas reservoirs hold less water after every runoff event is a signal to industry that there will be water shortages in Kansas and that it is not safe to locate any water-dependent industry here. It is not even prudent for too many people to live here for the same reason in the long run. More than two-thirds of Kansans rely on the water stored in our reservoirs.

We feel the present program of utilizing streamside buffers has proven to be inadequate to effectively curb erosion and runoff from farm fields. We need to ramp up to a full-scale cover crop program.

Cover crops that consist of a diverse mix of plant species are proven to have a living root system that improves soil health which results in less need for commercial fertilizer applications as well as the ability to hold more water in place, thereby reducing soil erosion and runoff which results in sedimentation.

There are two aspects of mitigation that need to be considered to remedy the situation at least partially. The first is the need to educate landowners, especially those who grow commodity crops, about the need to keep their soil alive and healthy with a living root system throughout the year. The simple explanation is that living roots not only hold soil in place, but they support a soil ecosystem of micro- and macro-organisms that work together to enhance soil health.

The plants provide the basic carbohydrates for the organisms for energy and those organisms break down soil nutrients and minerals to benefit the plants. The result is a healthy soil ecosystem that holds water, prevents runoff, and stores carbon. The living root system also provides enough basic plant nutrients that a grower can reduce the amount of commercial fertilizer to grow crops, thus improving the net profit margin.

Ideally, the cover crops should be killed by crimping or some mechanical means and not by chemical means to further protect the soil organisms before or during planting of the cash crop. Likewise, plowing is not recommended as it also destroys the soil structure and the soil ecosystem which could result in greater susceptibility to heavy rainfall events compared to if the crops are planted in a no-till fashion.

The USDA presently conducts educational workshops about the use of the living root system which should be made available to more growers to educate them about these wise practices.

The second aspect is that of legislation concerning the need to protect our water storage capacity. We need legislation that first rewards growers and farmers for using a diverse mix of plant species for cover crops that should be maintained in such a way so that the ground always has a green, growing cover of plants throughout the year.

For those who continue to conduct business in a way that permits and results in runoff, there should be some form of penalties. Sedimentation and reduction of water storage capacity in Kansas is a serious problem that is also very costly and those who contribute to those costs should be penalized in such a way to convince them to convert to the more stable cover crop and living root system of management. It is not fair to taxpayers to allow some growers to contribute to the reduction of water storage as well to the cost in taxes to repair damages.

Additionally, the combination of runoff contaminated with nutrients and other chemicals has a negative effect on our natural resources which also has resulted in reduction of tax income from those sources, e.g., water-based recreation on and in our reservoirs.

The issue of water storage capacity in Kansas is a serious one that affects our economic status and the ability to live in this state. We cannot continue to kick this issue down the road for future Kansans to handle. We need to immediately step up education of our growers and farmers about how and why to use cover crops throughout the year and we need to create legislation that will protect our businesses and our residents for the future.

The Kansas Wildlife Federation looks forward to working with the Kansas Water Office and Kansas Water Authority to assist in any way we can. Good cover crops throughout the state will also result in better fish and wildlife management for us all, which is another revenue source that can be enhanced with proper soil health management.

Sincerely,



Laura Mendenhall
Board President
Kansas Wildlife Federation