

BUFFALO RIVER WATERSHED ALLIANCE

PO Box 101, Jasper, AR 72641
(870) 446-5783 buffalowatershed@gmail.com

Comments on Proposed Revisions to the National Handbook of Conservation Practices for the Natural Resources Conservation Service

Submitted by Buffalo River Watershed Alliance on April 7, 2021

To whom it may concern:

The following comments are submitted on behalf of the Buffalo River Watershed Alliance (BRWA), a 501-c-3 organization with over 2,200 supporters whose mission is to preserve and protect the water and air quality of the Buffalo National River (BNR).

The BNR is the nation's first national river, created in 1971, and is characterized by extensive karst terrain, features which are common throughout the Ozark Mountain region of NW Arkansas. These features include caves, sinkholes, dolines, sinking streams, limestone outcroppings, etc. Because the BNR encompasses only 11% of the watershed which feeds it, water quality of the river is highly dependent on practices carried out on the remaining 89% of the watershed. Agricultural practices in particular can have a direct and potentially negative effect on water quality within the watershed. Dye trace studies within the BNR watershed have revealed extensive karst networks through which materials applied to the surface can travel rapidly and extensively, resurfacing in springs and streams many miles away and in unexpected locations. See Characterization of the karst hydrogeology of the Boone Formation in Big Creek Valley near Mt. Judea, Arkansas— documenting the close relation of groundwater and surface water. John Murdoch, Carol Bitting, John Van Brahana, Environmental Earth Science, August, 2016. (see attached file)

Agricultural practices which do not properly account for the presence of karst features and take appropriate steps to avoid them risk long term detrimental impacts to ground and surface water. NRCS, through its Conservation Practice Standards, establishes a baseline for agricultural best management practices and has a responsibility to direct the agricultural community to protect ground and surface waters, which includes acknowledging the karst conduits which connect ground and surface waters.

While our comments are focused on the BNR watershed in particular, these comments are applicable to other karst terrains throughout the U.S.

Our concerns with the proposed revisions to the National Handbook of Conservation Practices (NHCP) for the Natural Resources Conservation Service regard **Code 527 – Karst Sinkhole Treatments** and the systematic deletion of the term “karst” throughout this section of the conservation practice standards. The NHCP provides important guidance and requirements for farmers who wish to qualify for NRCS assistance. Code

527 currently is one of the only sections of the NHCP which makes reference to karst features and the need to consider them when implementing conservation practices. While there may be some examples of natural non-karst sinkholes, such as glacial till depressions and collapsed lava tubes, which is the presumed rationale for removing the “karst” term, the vast majority of sinkholes encountered by farmers are undoubtedly those occurring in karst terrain. The rare instances of non-karst sinkholes could be easily addressed in Code 527 without systematically removing the karst descriptor throughout the practice standard. Consideration of karst features such as sinkholes are important when developing conservation practices which are protective of the environment and which provide clear guidance for farmers’ implementation of conservation practices and **we recommend that the word “karst” remain in Code 527 as it is written in the current version of the NHCP.**

Thank you,

Gordon Watkins, President
Buffalo River Watershed Alliance