April 15, 2019

Via www.regulations.gov
The Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
Office of the Administrator
Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

The Honorable R.D. James
Assistant Secretary of the Army
Office of the Assistant Secretary of the
Army for Civil Works
Department of the Army
108 Army Pentagon
Washington, DC 20310

Re: ***Revised Definition of Waters of the United States***
Docket No. EPA-HQ-OW-2018-0149-0003

Dear Administrator Wheeler and Deputy Secretary James:

Please accept these comments on behalf of the Carolina Wetlands Association in opposition to the proposed Revised Definition of Waters of the United States. Carolina Wetlands Association is a 501(c)(3) organization dedicated to educating the public about the value of wetlands in North and South Carolina and advocating for policies that protect and preserve wetlands. We oppose this proposal to eliminate essential protections for wetlands under the Clean Water Act.

Wetlands have played a central role in the natural and cultural history of North and South Carolina. From the mountain bogs and seeps that host the greatest diversity of salamanders in the world to our coastal plain pocosins, bays, and savannas that are home to plants and animals found nowhere else, wetlands define the Carolinas. Our ephemeral and intermittent headwater creeks act much like the capillaries in our bodies, controlling flow and water quality in our larger streams and rivers. Coastal plain wetlands including our Carolina bays, vernal pools, longleaf

pine savannas, and sinkhole wetlands are critical breeding sites for rare birds and amphibians, and also provide uptake of excess nutrients, pollutant attenuation, and help buffer our coastal plain farms and towns from floodwaters with increasing frequency. Our wetlands serve more than wildlife, they clean our drinking water, buffer us from storm surges (including tropical storms and hurricanes), and absorb floodwaters.

The proposal threatens each of these benefits that wetlands provide. It does so by proposing to limit jurisdiction to wetlands that abut other jurisdictional streams and rivers or have a surface water connection to those waters. That narrowing of jurisdiction will, alone, eliminate protections for many wetlands in North Carolina. Going further, the proposal would limit jurisdiction over streams and ditches in such a manner that many wetlands that are adjacent under existing standards would no longer be waters of the United States. With these changes, it is not possible to protect the chemical, physical, and biological integrity of North Carolina's wetlands. As a result, we will not be able to protect our drinking and recreational waters.

A. The Proposal Threatens Wetlands that Provide Protection from Floods.

The last few years in North Carolina have been exceptional in the worst way. In 2016, our state experienced massive flooding from Hurricane Matthew—a "500-year rain event." Just two years later, we lived through more widespread flooding from Hurricane Florence—a "1,000 year rain event." Hurricanes Fran and Floyd in 1996 and 1999 were also "exceptional" events, compared with existing climate data. During its 88-year period of record, the Tar River at Tarboro, our largest Atlantic slope river without a major modern flood-control dam, experienced 17 days with flood flows greater than 30,000 cfs; 14 of those days were within the past 20 years (USGS # 02083500).

It has never been clearer that we need to protect and restore wetlands, particularly within our floodways and floodplains. Many of our floodplains have natural upland levees that "isolate" them from adjacent rivers except during infrequent "ephemeral flow" events. Drainage channels from these flood storage area often lack an ordinary high water mark and do not have intermittent or perennial surface water connections. Therefore, although these wetlands provide significant ecosystem services, they would lose federal protection under the Clean Water Act.

We cannot afford to lose floodplain wetlands. Floodplains are the natural system design that alleviates economic impact of natural flooding events. The function of many Carolina floodplains is already compromised by development. Their function is vital in uplands and headwaters all the way to the coasts. Wetlands slow the flow of water into rivers that flow through major towns and cities and populated neighborhoods, alleviating risk of downstream flooding.

B. The Proposal Threatens to Eliminate Nature's Water Filter.

Ephemeral and intermittent headwater streams comprise the majority of NC and SC watersheds in both stream miles and acreage. Lands adjacent to headwater streams, therefore, provide the bulk of hydrologic control and water filtration functions. Losing protection of these streams, combined with subsequent land development, will result in unfiltered, rapid urban runoff to become the dominant flow component into our perennial streams and lakes.

Headwater wetlands are wetlands at headwater streams. They occur all across NC and SC and typically spawn streams, ephemeral, intermittent, and perennial. The hydrology sources can be ground water seeps, high water tables, and/or precipitation. The landscape position of headwater wetlands is critical because they capture potential pollutants, filters the pollutants from the water before the water continues downstream. Headwater wetlands therefore play a critical role in water quality.

Many of those headwater wetlands are threatened by this proposal. Based on subsequent analysis of a 2008 EPA report by Baker and Savage (Development of a Wetland Monitoring Program for Headwater Wetlands in North Carolina, Final Report of EPA Grant CD 974260-01, 2008), approximately 25% of the headwater wetlands in North Carolina would lose protection in under the proposed rule. This could go as high as 75% of the headwater wetlands being not protect in NC if intermittent streams are deemed non-jurisdictional.

Loss of these wetlands will have important water quality impacts. The Baker and Savage (2008) report showed that water samples taken in the headwater wetland had higher levels of pollutants than water samples taken downstream (typically 200 feet downstream). Some of the pollutants filtered by the headwater wetlands were ammonia, copper, zinc, phosphorus, total organic carbon, dissolved organic carbon, and TKN (Total Kjeldahl Nitrogen). Dissolved oxygen increased downstream which would be expected as pollutants were filtered out, therefore macroinvertebrates would be able to thrive.

Riverine wetlands (riverine swamp forests, bottomland hardwood forests (both are floodplain forested wetlands)) are also of concern because of the natural berms that can occur with overbank flooding. If the natural berms form, then the wetlands will no longer have protection. Savage and Baker (Field Verification of Wetland Functional Assessment Methods within Local Watershed Planning Areas Final Report to the U. S. Environmental Protection Agency in Fulfillment of EPA Wetlands Program Development Grant - CD 96422105-0, 2010) showed that these riverine wetlands play a critical role in filtering potential pollutants as water passes through the wetland system. Water samples taken upstream in the wetland complex had higher concentrations of potential pollutants that water samples taken downstream, indicating that these wetlands filtered pollutants and improved water quality downstream. Ammonia dissolved organic carbon, total organic carbon, phosphorus, TKN (Total Kjeldahl Nitrogen), and zinc were filtered and had lower levels downstream. Dissolved oxygen increased downstream which is important for downstream macroinvertebrates.

Wetlands play a critical role in protecting water quality in our states and if they lose protection, then we will all suffer the consequences. More polluted water downstream of our wetlands will result in higher costs to clean the water, reduced recreation in the more polluted waters, and potentially higher health costs.

C. <u>Valuable Wetlands Could Lose Protection Under this Proposal.</u>

Important wetlands across the Carolinas could be lost under this proposal. Our coastal plain is dominated by pocosins, Carolina Bays, pine flats, wet savannas, hardwood flats, non-riverine swamp forests, basin wetlands, floodplain pools and pine savannas that are in danger of losing protection under this proposal. If this rule goes forward as proposed, or is made more restrictive as suggested, the effects on our coastal-plain wetlands will be devastating. Draining

and developing these inter-stream flat wetlands will result in greater nutrient and pollutant loadings into our coastal estuaries, as Florida and Gulf coastal states have been suffering in recent years.

Each year, the Carolina Wetlands Association highlights high-value wetlands in North and South Carolina as wetland treasures. As described more fully in the attached fact sheets, these wetlands are important parts of our natural and cultural history. Many of the wetland types we have recognized as wetland treasures would be threatened by this proposal, including Southern Appalachian Fens, pocosins, Carolina bays, floodplain pools, Southern Appalachian bogs, and cypress savannas. These wetland types are already rare and need protection.

D. The State of North Carolina Cannot Compensate for the Loss of Federal Protection.

Carolina Wetlands was founded by and includes numerous former scientists and regulators for the State of North Carolina. We know firsthand how the partnership between the Corps and the state Department of Environmental Quality has worked to protect wetlands. The central theme of this proposal is to give authority to states to protect wetlands. North Carolina, however, lacks the regulatory and mitigation program, capacity, funding, and trained staff to implement a program comparable to the Wilmington District of the Corps. Removing federal protections from wetlands will simply leave them unprotected in most instances. North Carolina simply does not currently have, and is not likely to obtain, the funding and expertise necessary to create a program that includes protections for streams and wetlands under existing federal regulations.

E. The Proposal Threatens North Carolina's Growing Restoration Industry.

Not only does the proposal threaten North Carolina's natural environment and communities, it threatens our growing restoration industry. Our history has not been kind to wetlands. Important restoration work is being done in our state by a variety of companies ranging from construction firms to engineers to nurseries. Because the proposal would strip protections from wetlands, it would eliminate the need for mitigation in many instances and threaten our restoration industry.

Stream and wetland restoration in North Carolina is not only good for water quality; it's a significant economic contributor. As of May 2018, the North Carolina Division of Mitigation Services had entered into mitigation contracts worth $508,545,591. Although exact figures aren't available, much of that mitigation investment goes to landowners who are able to conserve part of their property while continuing to use the rest. Wetland restoration is an important part of limiting damage done to existing wetlands and restoring degraded wetlands.

F. The Final Rule Should Include Broad Protections for Wetlands.

As part of a fast growing region with extensive wetlands, the Carolinas need strong wetland protections now more than ever. More, rather than less, wetland protections are needed if we hope to preserve the ecological, cultural, and economic benefits that wetlands provide. This proposal threatens to take away protections that we have depended on for the last 40 years. We respectfully request you to withdraw this proposal.

Sincerely,

Rick Savage
President
Carolina Wetlands Association