



March 25, 2019

Mr. Andrew Edwards
Water Quality Standards Coordinator
Bureau of Water
Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Re: Comments on 2019 Triennial Review of Regulation 61-68, *Water Classifications and Standards*, and Regulation 61-69, *Classified Waters*

Dear Mr. Edwards:

South Carolina Rivers Forever is a network of conservation organizations, businesses and citizens with a mission to protect the State's surface and ground waters. Our Leadership Team consists of representatives from American Rivers, Congaree Riverkeeper, Conservation Voters of South Carolina, Savannah Riverkeeper, Save Our Saluda, Sierra Club of South Carolina, South Carolina Coastal Conservation League, South Carolina Paddlesports Industry Association, and South Carolina Wildlife Federation. We believe that clean and abundant waters are essential to all current and future South Carolinians and that the waters of the State's rivers, reservoirs and estuaries are held in public trust for all of its citizens. South Carolina Rivers Forever strives to work collaboratively and transparently to achieve specific goals based on the following guiding principles:

1. South Carolinians must be pro-actively engaged as stewards of our waters;
2. The surface water and groundwater of South Carolina are public resources that are entrusted to the state to be managed in the public interest and in a sustainable manner that protects natural systems while meeting human and economic needs;
3. Effective water management must achieve long-term sustainability through transparency and meaningful citizen input with rigorous ongoing planning, implementation, and enforcement; and
4. Water policy and management should reflect the public interest in maintaining and supporting the health and abundance of our water resources for future generations.

It is with dedication to these goals and values that we submit comments on the 2019 Triennial Review of Regulation 61-68 and Regulation 61-69. Several members of South Carolina Rivers Forever met with the Department in February to discuss the Triennial Review and related issues

including developing instream nutrient standards and flow standards for the state's rivers, streams and estuaries. We follow up that discussion with these written comments.

The Department should prioritize the establishment of instream nutrient standards for all SC rivers and streams. In *The State of South Carolina's Adoption Plan for Numeric Nutrient Water Quality Criteria*, the Department established a schedule for adoption of numeric nutrient criteria for estuaries, rivers, and streams by 2008.¹ Eleven years behind schedule, it is now critical that the Department establish instream nutrient criteria in the 2019 Triennial Review. In meetings with stakeholder groups in February and March 2019, the Department indicated that criteria for estuaries would be developed in the 2019 Triennial Review and adopted by 2022. The Department then suggested the development of instream nutrient criteria for rivers and streams in the 2025 Triennial Review and adoption in 2028 – more than twenty years after the Department's original deadline for the adoption of nutrient criteria.

We are pleased that the Department has acknowledged the need for instream nutrient criteria, but are concerned with the proposed timeline to establish the criteria, citing a need for more data collection and analysis. While we understand the need for thorough investigation to determine parameters specific to South Carolina waters, we caution the Department from delaying on actions necessary to establish nutrient criteria. As stated in the Adoption Plan, the Department has traditionally collected phosphorus, nitrogen, and turbidity data as part of its stream monitoring program for decades, providing data that should be used to establish numeric nutrient standards. The Department has reportedly collected data and coordinated with the Georgia Department of Natural Resources for the specific purpose of establishing numeric nutrient criteria for rivers and estuaries since 2010.² We encourage the Department to advance these efforts and move forward with analysis and the development of nutrient standards earlier than proposed. A delay of 20 years to develop and implement instream nutrient standards needed to protect the water quality of the state's rivers and streams is unacceptable.

The Department should develop and adopt narrative flow standards for aquatic life and recreation in the state's rivers, streams and estuaries. The Department has a duty to fully protect aquatic life and primary and secondary contact recreation uses of the state's freshwaters and estuaries. Sufficient flow is essential to protecting these designated uses, and the physical, chemical, and biological quality of the state's waters on which they depend. These uses warrant protections through the development and adoption of narrative flow standards under Regulation 61-68. To achieve this, we recommend the Department convene a stakeholder group to collaboratively develop narrative standards for stream flow as part of the 2019 Triennial Review process.

South Carolina Rivers Forever's recommendation for establishing narrative flow standards is consistent with that of the Environmental Protection Agency (Agency). In their May 6, 2013 letter, the Agency recommended that the Department develop a water quality standard for flow

¹ The State of South Carolina's Adoption Plan for Numeric Nutrient Water Quality Criteria (2007). http://aquaterra.com/pub/EPA_WA18_archive/SC-2007.pdf

² Updated SC Adoption Plan for Numeric Nutrient Criteria (2010). <https://cfpub.epa.gov/wqsits/nnc-development/ncdp/scplan2010.pdf>



to explicitly protect designated uses. The Agency recommended this explicit flow protection be established through either narrative or numeric standards. In 2016, the Agency and US Geological Survey published a technical report, *Protecting Aquatic Life from the Effects of Hydrologic Alteration*, that includes guidelines for establishing narrative flow standards and numeric flow targets.³ We encourage the Department to use these guidelines in the development of a narrative flow standard for aquatic life. The technical report should also prove useful for designing a process for how a narrative flow standard can be developed for primary and secondary recreation uses.

Robust stream flows are essential for sustaining healthy waters. Standards should be developed using techniques that adequately allow for flow variability based on a natural flow paradigm.⁴ The importance of seasonal, intra-annual and inter-annual variable flow patterns needed to sustain natural riverine characteristics that support aquatic life and diverse recreation uses should also be recognized in the standards. One method that is useful when site-specific flow data is lacking is the Percent-of-Flow (POF) approach or presumptive standard.⁵ The presumptive standard “explicitly recognizes the importance of natural flow variability and sets protection standards by using allowable departures from natural conditions, expressed as percent alternation.”

South Carolina Rivers Forever looks forward to working with the Department during the 2019 Triennial Review process to develop numeric instream nutrient standards and narrative flow standards. Explicit criteria for instream nutrients and stream flow protection are critical for South Carolina’s environment and economy. It is imperative that the Department develop and adopt these standards as part of the 2019 Triennial Review.

Sincerely,

The Leadership Team

South Carolina Rivers Forever

cc: Dr. Michael Markus- Bureau of Water

Joseph Pohnan EPA-Region 4

Lisa Perras Gordon—EPA Region 4

³ Final EPA-USGS Technical Report: Protecting Aquatic Life from Effects of Hydrologic Alteration.

<https://www.epa.gov/sites/production/files/2016-12/documents/final-aquatic-life-hydrologic-alteration-factsheet.pdf>

⁴ Poff, N.L., J.D. Allan, et al. (1997). “The natural flow regime: A paradigm for river conservation and restoration.” *BioScience* 47(11): 769-784.

http://wec.ufl.edu/floridarivers/RiverClass/Papers/Poff%20et%20al.%201997%20natflow_paradigm.pdf

⁵ Richter, B.D., M.M. Davis, et al. (2011). “Short Communication: A presumptive standard for environmental flow protection.” *River Research Applications*.

https://pubapps.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/cmmt091412/rosenfeld/appendix_pelagics.pdf

