March 25, 2019

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

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

Dear Mr. Edwards:

On February 22, 2019, the South Carolina Department of Health and Environmental Control (Department) released a Notice of Drafting for the 2019 Triennial Review of Regulations 61-68, Water Classifications and Standards, and 61-69, Classified Waters. Prior to this announcement, American Rivers and other conservation organizations met with you and other Department staff to discuss priorities for the 2019 Triennial Review including developing narrative standards to protect stream flow needed to ensure that aquatic life and primary and secondary contact recreation designated uses will be fully supported. It was requested that our discussion be made part of the record for the 2019 Triennial Review. Consistent with that discussion, American Rivers is providing written comments for the development and adoption of narrative flow standards for aquatic life and recreation uses as part of the 2019 Triennial Review process.

Clean, abundant water is essential for both the environment and the economy. A 2017 report by the Outdoor Industry Association clearly made the connection between a healthy environment, the outdoor recreation economy and job creation. According to the report, outdoor recreation nationally generates $887 billion annually in consumer spending with $176 billion spent on fishing and water sports. For South Carolina, the association estimates outdoor recreation supports $16.3 billion in consumer spending, $4.6 billion in wages and salaries, $1.1 billion in state and local tax revenue, and 151,000 jobs. That is more jobs for South Carolina than the automotive and aerospace industries combined. A 2013 report by the American Sportfishing Association, its most recent report with state by state reporting, found that freshwater fishing alone annually results in an $897 million benefit to the state economy, supports 9,147 jobs and provides $290 million in wages and salaries. These reports clearly demonstrate that a healthy environment and healthy economy go hand in hand. Citations for these and additional information sources referenced in this letter are provided below.

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.

American Rivers' recommendation for establishing narrative flow standards is consistent with that of the Environmental Protection Agency (Agency). In their May 6, 2013 letter (attached), the Agency recommended that the Department develop a water quality standard for flow 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. 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 (Poff *et al.* 1997). 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 (Richter *et al.* 2011). 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."

American Rivers looks forward to working with the Department during the 2019 Triennial Review process to develop narrative flow standards as part of South Carolina's water quality standards. Stream flow protection is a critical issue for South Carolina. Given its environmental and economic values, it is imperative that the Department explicitly recognize stream flow protection through narrative standards.

Thank you for your consideration of our comments and recommendations.

Sincerely,

Gerrit Jöbsis, Senior Director
Rivers of Southern Appalachia and the Carolinas

Citations

Outdoor Industry Association 2017 Report https://outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf

American Sportfishing Association 2013 Report https://asafishing.org/wp-content/uploads/Sportfishing_in_America_January_2013.pdf

Environmental Protection Agency and US Geological Survey Technical Report: *Protecting Aquatic Life from the Effects of Hydrologic Alteration* https://www.epa.gov/sites/production/files/2016-12/documents/final-aquatic-life-hydrologic-alteration-report.pdf

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.

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

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAY 06 2013

Mr. Jason Gillespie, Coordinator
Water Quality Standards Program
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

Mr. Gillespie,

The purpose of this letter is for the Environmental Protection Agency (EPA) to enumerate its suggestions for items to be considered in the next triennial review of South Carolina's water quality standards. We have the following recommendations for your consideration and we are presenting these items now so that your agency has sufficient time to consider them prior to the initiation of rulemaking in the State.

Removal of language at R. 61-68 regarding biological data

The State currently has language at Section E.14.d.(2) that allows for ambient violations of any numeric toxic criterion as long as the biological community is not adversely impacted. We believe this language is potentially inconsistent with the Clean Water Act (CWA) and its implementing regulations. The EPA recommends that South Carolina review its language for consistency with the CWA and its implementing regulations.

Nutrient Development

South Carolina currently has a nutrient criteria development plan on which the EPA has mutually agreed. We encourage you to make every effort to meet the milestone deadlines that are outlined in this plan and subsequently revise your water quality standards consistent with the outcome of the projects outlined in the plan. Should the State find that it will be unable to meet its obligations as set out in the plan, the State should contact the EPA at the earliest point to attempt to negotiate a new milestone schedule.

Flow as a water quality standard

The EPA has led numerous discussions since May 2010 relating to flow (water quantity) and water quality. Drought, floods, water disputes and the development of regional and state water plans have brought water quantity/quality issues into sharp focus - including impacts of both extreme low and high flows on habitat and aquatic life. Around the country and here in Region 4, states and tribes have begun to address flow through the water quality standards program. Existing water quality standards implicitly protect flow through narratives for protection of aquatic life, protection of designated uses,

biological integrity, habitat protection and antidegradation policies. Region 4 is encouraging all of our states and tribes to consider explicit expression of flow as a water quality standard, either through a narrative standard, (i.e., such as used by Tennessee "...flow shall support the aquatic criteria...") or through a numeric standard (i.e., such as used by Vermont, "no more than 5% 7Q10 change from natural flow regime...") and to ensure good coordination between state entities responsible for water supply decisions and water quality standards decisions. We understand that the State has recently adopted a water withdrawal rule which may effectively address this issue. We believe this is a very positive step and we would like to learn more as you move forward with implementation of this rule. We stand ready to support your efforts where needed.

Methylmercury

Section 303(c)(2)(B) of the CWA requires states and authorized tribes to adopt numeric criteria for Section 307(a) priority toxic pollutants for which the EPA has published Section 304(a) criteria, if the discharge or presence of the pollutant can reasonably be expected to interfere with designated uses. The EPA has published Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion, EPA 823-R-10-001. The April 2010 document provides guidance for states, territories and authorized tribes on how to use the new fish tissue-based criterion recommendation in developing water quality standards for methylmercury and in implementing those standards in Total Maximum Daily Loads and NPDES permits. We understand that you are beginning work to adopt a water quality criterion consistent with the 2001 criterion and the 2010 implementation guidance and we encourage you to continue this effort.

Updated Toxics Criteria

As the State initiates its next triennial review, we ask that you review and revise, as necessary, the criteria for toxic pollutants currently adopted by the State in accordance with the EPA's updated human health and aquatic life criteria that can be found on the EPA's website or by contacting the EPA.

The above items cover the major points that the EPA would like the State to consider in its next triennial review. As always, new items may come up during the course of the State's review, not only from the EPA but also from the State's internal discussion as well as interested parties in the public. We look forward to working with you to address those items as well. Should you have any questions concerning any of this, please contact me at 404-562-9967 or Joel Hansel at 404-562-9274.

Sincerely,

Annie Godfrey, Chief
Water Quality Standards Section