

# Foreword

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Volume 8, Issue 2 of the *Journal of South Carolina Water Resources* (JSCWR) includes four articles. Three articles focus on the crucial factors of public perceptions and communications across various stakeholder groups. The fourth article examines the hydrologic modeling of a coastal forest watershed. Additionally, an informative guest commentary about the US Environmental Protection Agency (EPA) Water Quality Exchange (WQX) and Water Quality Portal (WQP) was contributed by authors from the EPA and South Carolina Department of Health and Environmental Control (SCDHEC).

The JSCWR editorial committee is excited to introduce a 2021 special issue (Volume 8, Issue 1) focused on water quality and public health and sponsored by the federally funded Center of Excellence for Oceans and Human Health and Climate Change Interactions (OHHC<sup>2</sup>I). Located at the University of South Carolina (UofSC), the OHHC<sup>2</sup>I is a vibrant research partnership with the College of Charleston, Baylor University, The Citadel, Rutgers University, the University of Maryland's Center for Environmental Science, and the Lowcountry Alliance for Model Communities. The goal of the OHHC<sup>2</sup>I is to enhance our knowledge of the roles climate change may play in affecting *Vibrio* bacterial infections and production of toxins from freshwater cyanobacteria and their resulting effects on the ecosystem and human health. Several of the articles feature the research of student authors leading the development of new technical information and public engagement and translating scientific knowledge into vital products for communities. The special issue is available on [tigerprints.clemson.edu/jscwr](https://tigerprints.clemson.edu/jscwr).

As our state continues to maneuver through the ever-fluid pandemic stages, broader outcomes are realized from various public health and behavioral aspects and the subsequent environmental impacts. Katie Callahan is the Director of the Clemson University Center for Watershed Excellence and was appointed to the PalmettoPride Board of Directors by Governor Henry McMaster earlier this year. Katie also co-leads the SC Adopt-A-Stream program with SCDHEC and serves as adjunct faculty for the Department of Forestry and Environmental Conservation. Her projects focus on building stakeholder resources and tools for improved water resource management. She provided a summary of recent research regarding our ever-growing litter problem.

These past two years have increasingly shown us how globally connected we are as we traversed the highs and lows of a global pandemic. For the environment, our “Great Pause” generally benefited wildlife and clean air (Scientific American, 2020). In terms of plastic production, however, decreasing petroleum costs lowered plastic production costs, leading to greater virgin plastic use for packaging, PPE, take-out containers, and more. Take-out container usage made an enormous increase in 2020, putting our nation on track to increase the amount of single-use plastic by 30% in just one year. Plastics comprise 85% of marine pollution, and models predict that by 2050, plastic will outweigh fish in the ocean (Scientific American, 2020). The United Nations took bold action in late 2021, calling for greater accountability when it was reported plastic pollution in the ocean would double by 2030 (United Nations, 2021). Plastic only came into use in the 1950s, so doubling this amount of marine debris in just nine years illustrates our plastic dependency and poor management of waste on a global scale. Plastic degradation in our oceans releases carbon and produces microplastics and chemical additive byproducts, which are highly toxic to marine life, and, ultimately, can be ingested by humans in seafood, drinks, and even common salt. While the implications of our litter problem are felt locally and economically, the enormity of the problem is working against humanity globally. As scientists, we know that we can not definitively say that we have solved a problem without data; data also brings transparency and accountability. There are significant areas of research and outreach needed to improve this problem in our communities, state, and across the globe.

A vital forum for state water resources research and policy is back this year. The 2022 South Carolina Water Resources Conference (SCWRC) will be held October 19-20 at the Columbia Metropolitan Convention Center. Visit [scwaterconference.org](https://scwaterconference.org) for more information. In closing, we wish to thank the authors of the 2021 special and annual issues for their diligence, our guest reviewers for their expertise, and our editorial board for their commitment. The 2023 JSCWR call for submittals will be announced in late spring. Letters of intent will be invited through late summer, with full submittals due in December. Details will be provided on [tigerprints.clemson.edu/jscwr](https://tigerprints.clemson.edu/jscwr).