

April 15, 2025

Mississippi State University
Richard A. Rula School of Civil and Environmental Engineering
Coastal Research and Extension Center
ATTN: Dr. Fei Wang, Associate Professor
1815 Popps Ferry Road
Biloxi, Mississippi 39532

**RE: Letter of Support - Mississippi-Alabama Sea Grant Consortium Grant
Proposal - Developing Innovative Living Shoreline Breakwaters using
Engineered Biochar-Based Recycled Concrete**

Dear Dr. Wang:

On behalf of the Baldwin County Commission, I would like to express our support of your team's submission to the Mississippi-Alabama Sea Grant Consortium's Research Funding Opportunity titled "*Developing Innovative Living Shoreline Breakwaters using Engineered Biochar-Based Recycled Concrete.*"

We are extremely familiar with the need to develop novel technologies to help address shoreline erosion. Across the Mississippi and Alabama coasts, there have been many efforts focused on shoreline erosion through construction of breakwaters or marsh sills. These structures are typically made of concrete or limestone and have been shown to be beneficial for both shoreline protection and habitat enhancement. As evident through the Mississippi-Alabama Sea Grant Consortium's Living Shoreline Technical Assistance Program, these types of shoreline projects are becoming more in demand from public and private landowners.

As the popularity of these types of projects increases, so has the cost of materials with much of that being attributed to shipping costs and limited local availability. Much of the rock used in these projects is being sourced from several states away leading to not only increased costs, but financial resources being sent out of the region.

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April 15, 2025

Page 2 of 2

Your proposal outlines how you will assess the feasibility of incorporating locally sourced biochar material into structures needed to construct shoreline protection projects. The proposed approach of testing different biochar and concrete mixtures for structure integrity and environmental benefit is novel and has promise to lead to large-scale benefits across the region. The ability to locally source waste biological material, such as woody debris, and incorporate it into shoreline protection projects could lead to direct environmental and economic benefits.

We would be thrilled if this proposal was funded since it directly addresses regional needs. Given our strong working relationship with members of your project team, I am confident this will be a very impactful project.

Sincerely,

MATTHEW P. MCKENZIE, Chairman
Baldwin County Commission

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