



MARTIN COUNTY

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December 18, 2018

Via Email

Mr. Mark Suddleson
MERHAB Program Manager, CRP
240-533-0305
Marc.Suddleson@noaa.gov

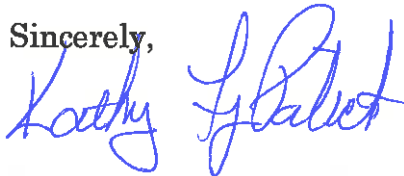
Dear Mr. Suddleson,

Martin County has experienced cyanobacterial outbreaks in the St. Lucie River and Indian River Lagoon beginning in 2005 and again in 2010, 2013, 2016 and 2018. The events have increased in severity, causing the County to issue formal declarations of emergency on multiple occasions. The outbreaks have been associated with extended, high intensity precipitation events, producing high volume basin flows that combine with long-duration releases from Lake Okeechobee. In the more recent events, blooms have been documented in Lake Okeechobee prior to outbreaks in Martin County waterways. Pronounced economic impacts commensurate with the increased magnitude of the blooms were incurred by Martin County's water dependent community. Anecdotal reports of health impacts were also received. This summer our region also faced our first experience with a long term *Karenia brevis* bloom along our Atlantic Ocean shoreline.

Our community faces these issues with an increasing frequency. Without the benefit of technical tools to assist with the prediction and tracking of the blooms, our ability to respond is limited. The development of rapid, accurate mechanisms to detect and monitor HABs and using them to leverage existing monitoring efforts is of critical importance to County governments in our efforts to inform and protect our citizens. Ultimately bloom prediction, prevention and mitigation efforts will lead us to a more proactive solution. The project proposed by Dr. Nayak: "MERHAB 2018: Integrating autonomous digital holographic imaging systems for near-real time detection and monitoring of harmful algal blooms" would help achieve these objectives and help inform HAB management efforts. The ever increasing human health and economic issues associated with HABs and toxins require an investment in this type of research to understand the scope and potential responses of the problem especially when it is coordinated with important stakeholders like Martin County so that we can better anticipate manage and recover from this threat.

At the present time, the County has no predictive data or understanding of the BGA life cycles or population dynamics, no understanding of the environmental tolerance or toxin responses of *Microcystis*, or fate of the toxins in the St. Lucie/Indian River Lagoon ecosystem. This work may also provide new insights into the potential for altered water management practices, focused prevention, and restoration actions. We are pleased to provide this letter of support for the proposed project, and are hopeful that it is favorably received by the Monitoring and Event Response for Harmful Algal Blooms (MERHAB) program.

Sincerely,



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cc: Aditya Nayak, Harbor Branch Oceanographic Institute
Don Donaldson, Deputy County Administrator
John Maehl, Ecosystem Restoration and Management Manager