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Co-Editors-in-Chief

Marine Pollution Bulletin

We are pleased to submit our manuscript, “Initial estuarine response to the nutrient-rich Piney Point release into Tampa Bay, Florida” to be considered as an original research article in Marine Pollution Bulletin.

The Piney Point facility is located three kilometers from the shore of Tampa Bay, Florida. Mining activities have not occurred at the site for over twenty years and legacy wastewater stored on-site has posed a significant risk to human health and the environment. On March 29th, 2021, the Florida Department of Environmental Protection authorized release of water from Piney Point directly to lower Tampa Bay to prevent catastrophic failure of a large holding pond at the facility. Over a ten day period, an estimated 186 metric tons of total nitrogen were released to the bay, exceeding annual external average nutrient loads in a matter of days. This manuscript documents the initial estuarine response to this large inorganic nutrient release, covering a range of data types, including water quality, phytoplankton, macroalgae, and seagrasses. Results from these datasets over a six month study period are evaluated relative to the decades of baseline monitoring data available for Tampa Bay.

Our results have broad appeal for the environmental concerns of legacy mining activities on coastal resources. The US state of Florida has historically supported a large fertilizer industry, whereas these mining activities are also a global phenomenon. Fertilizer production generates a large amount of waste relative to the commercially viable product and many facilities have had insufficient planning to dispose of this waste in an environmentally responsible manner. Regulatory oversight has also been insufficient to safely and effectively close these facilities. As a result, environmental resources and taxpayers are left to pay the cost of legacy mining facilities that have not been actively used for many years. Piney Point is only one example of this broader phenomenon. The results in this paper support the larger conversation of how insufficient oversight and planning can lead to unintended environmental impacts.

We are confident that readers of Marine Pollution Bulletin will find this manuscript informative. We appreciate the opportunity to publish our work in this venue.

Sincerely,



Dr. Marcus W. Beck

Program Scientist

Tampa Bay Estuary Program