



2021 Funding Priorities for Great Bay Estuary – June 2021 Supplement

In April 2021, Brown and Caldwell (BC) provided the Municipal Alliance for Adaptive Management (MAAM) with a prioritized list of monitoring/science activities and funding needs for the Piscataqua Region Monitoring Collaborative (PRMC). Since that list was compiled, the Piscataqua Region Estuaries Partnership (PREP) has requested that MAAM consider funding two additional studies in 2021 as shown in the table below:

Study	Funding Gap	Funds Needed By	Study Description
Tier 2 Seagrass Monitoring	\$21,357	July	Assessing seagrass health and condition. Includes 50 sites for: percent cover, canopy height, number of shoots, epiphyte loads, seaweed percent cover, biomass, type, and species. 25 sites will get enhanced monitoring: seagrass biomass, reproductive condition, sediment samples (organics and grain size).
Point Source and Non-Point Source Loading Analysis	\$25,000	June	Compile existing data to assess total nitrogen loads to GBE.
Total	\$46,357		

BC considers the Tier 2 seagrass monitoring to be a high priority for funding. The data to be collected by the Tier 2 seagrass monitoring effort is critical for understanding the controls on seagrass health and distribution. The seagrass data could be combined with other monitoring or modeling information to help diagnose the roles of various stressors, including nitrogen, but also other potential factors such as inorganic turbidity, organic carbon, substrate quality, and top-down effects. The Tier 2 seagrass monitoring work is partially funded for 2021 and ideally should be conducted annually. The funding gap for this work was identified after the April memo was completed, and therefore, was not included in the initial memo. Otherwise, this funding need would have been a top priority recommendation in the April memo.

The TN loading study would entail the calculation of TN loads to the estuary from all sources. This type of calculation has been performed periodically (every ~3 years) in the past and was last performed in 2017. Hence, it is recommended that MAAM consider the 2021 funding request for the TN loading study. A quantification of TN loads would benefit various aspects of the ongoing adaptive management effort, including understanding the roles of different TN sources (including atmospheric and groundwater inputs), tracking changes over time, and improving land use models.

BC's April 2021 memo assigned higher priorities to sediment-related studies than to the nutrient budgeting activities. Since that time, additional conversations with PREP have noted the sediment-related studies require additional planning prior to funding the implementation. The sediment-related studies remains a high priority for funding and are expected to be included in long-term planning for future funding (i.e., 2022).