THE TAMPA BAY NITROGEN MANAGEMENT CONSORTIUM
PARTNERSHIP FOR PROGRESS

Water Docket, U.S. Environmental Protection Agency
Attention: Docket ID No. EPA-HQ-OW-2009-0596
Mail code: 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

March 8, 2010

To Whom It May Concern:

Thank you for the opportunity to provide feedback regarding site-specific analyses for the Tampa Bay estuary that should be used instead of the general approach identified in the Proposed Water Quality Standards for the State of Florida's Lakes and Flowing Waters (Docket ID No. EPA-HQ-OW-2009-0596). The Tampa Bay Nitrogen Management Consortium (NMC) requests that EPA finalize the Tampa Bay NMC's Total Nitrogen (TN) and Total Phosphorus (TP) loads (specified for each major bay segment in the table below), as the protective loads used in determining downstream protective values (DPVs) for flowing waters and as the protective Estuarine Nutrient Criteria for the Tampa Bay estuary. Because development of criteria for estuarine and coastal waters directly affects the determination of DPVs, the NMC recommends that EPA finalize nutrient criteria in flowing waters as part of the second phase of this rulemaking process in coordination with the proposal and finalization of numeric criteria for estuarine and coastal waters that is anticipated to occur in 2011.

Bay Segment	**EPA's Downstream Protective Load to Tampa Bay defined in the Jan. 14th, 2010 Draft Rule for Total Nitrogen Load expressed as tons/year (kilograms/year)**	**Tampa Bay NMC Proposed Alternative Total Nitrogen Load expressed as tons/year (kilograms/year)**	**Tampa Bay NMC Proposed Total Phosphorus Load expressed as tons/year (kilograms/year)**
Old Tampa Bay	None specified	486 (440,892)	104 (94,127)
Hillsborough Bay	None specified	1,451 (1,316,325)	1,093 (993.755)
Middle Tampa Bay	None specified	799 (724,841)	140 (127,673)
Lower Tampa Bay	None specified	349 (316,607)	52 (47,564)
Remainder of Lower Tampa Bay	None specified	629 (570,619)	112 (101,464)

The Tampa Bay NMC is a public-private partnership that includes federal and state regulators, local governments, and key-industry stakeholders (see footnote 1 for Consortium participants). The Tampa Bay NMC has developed a nutrient management strategy over the past quarter century in Tampa Bay that has maintained TN and TP loads at levels that provide full aquatic life protection and support designated uses in Tampa Bay, as demonstrated in the attached documentation. Tampa Bay's scientific determination of appropriate nutrient loads to support healthy seagrass beds and encourage seagrass expansion has been peer-reviewed through publication of scientific journal articles and reviewed and accepted by EPA and

FDEP to be protective loads for the Tampa Bay estuary. Existing TN and TP loads to Tampa Bay are currently providing a balance of adequate water clarity for healthy and expanding seagrass beds, and adequate phytoplankton production to support the bay's fish and wildlife populations.

The adaptive nutrient management strategy developed for the Tampa Bay estuary through this stakeholder-initiated process has led to documented water quality improvements and the protection of full aquatic life support in Tampa Bay. As was requested in the official docket by EPA, the attached documentation provides an alternative resource-based approach to address protection of downstream water quality that attains and maintains the State's designated uses in the Tampa Bay estuary. In summary, the use of the Tampa Bay NMC's requested TN and TP loads as the basis for numeric criteria in the Tampa Bay estuary are recommended for the following reasons:

- Water quality thresholds in the Tampa Bay estuary have largely been met since 1992 (79% of the time) and has led to the expansion of seagrass by more than 4,800 acres. These thresholds were met by maintaining the federally-approved nitrogen TMDL for Tampa Bay.

- Designated uses for Tampa Bay have been met and led to full support of the phytoplankton-based food web for Tampa Bay, as evidenced by stable/increasing populations of phytoplankton-feeding baitfish species and nesting populations of birds that feed on baitfish species (e.g. pelicans and terns). These designated uses were met by maintaining the federally-approved nitrogen TMDL for Tampa Bay.

- Full aquatic life protection and support for the designated uses for the Tampa Bay estuary have been met with the existing TP loads. Multiple lines of scientific evidence indicate that TP is not limiting productivity in the estuarine waters of Tampa Bay.

Although the Tampa Bay NMC recognizes the commitment by EPA to develop numeric nutrient criteria for all waterbodies in the State of Florida and that a general approach may be warranted for areas where more detailed, site-specific information is lacking, the Tampa Bay NMC contends that EPA's general approach is not applicable to the Tampa Bay estuary for the following reasons:

- EPA's draft approach for determining protective loads to downstream estuaries does not take into account the existing condition of the downstream water. Tampa Bay is currently maintaining full aquatic life protection and uses as evidenced by the maintenance and expansion of healthy seagrass beds, the estuarine-dependent fauna that inhabit them, and the critical phytoplankton-based food web. Further nutrient reductions are not needed within the estuary, and efforts to achieve them would direct scarce resources away from more environmentally beneficial activities where true nutrient impairments exist.

- EPA's draft approach for determining protective loads to downstream estuaries is based on loading estimates from the SPARROW model developed by the US Geological Survey for two scenarios – existing and baseline. The estimates from these two scenarios are used to determine the protective loads to downstream estuaries. EPA states that all estuaries in Florida are either at or above their protective loads, therefore it is assumed that all estuaries, including Tampa Bay, require a load reduction in order to maintain the full aquatic life protection and uses. As demonstrated in the attached documentation and summarized above, Tampa Bay is currently maintaining full aquatic life protection and uses as evidenced by the maintenance and expansion of healthy seagrass beds, the estuarine-dependent fauna that inhabit them, and the critical phytoplankton-based food web.

- EPA's application of the SPARROW model to develop protective loads for the Tampa Bay estuary is not appropriate. The Tampa Bay NMC has developed quantitative relationships between nutrient loads and chlorophyll-*a* levels in Tampa Bay and EPA's development of protective loads using the SPARROW model does not take into account these dose-response relationships. The SPARROW model's intended purpose to examine landscape characteristics that influence the delivery of nitrogen from sources within the watershed in the Southeastern US is not appropriate for smaller basins where local data sources are readily available (as is the case for the Tampa Bay estuary). Lastly, the SPARROW estimates do not fully reflect the time-varying loads to an estuary and its resulting response to the loads. The protective loads for the Tampa Bay estuary, as defined by EPA's application of the SPARROW model, are normalized to hydrologic conditions of a single year (2002), and are thus inappropriate for accounting for variations in the Tampa Bay estuary's response to nutrient loads and hydrologic residence times. This is particularly evident in EPA's development of a single protective load for the Tampa Bay estuary, when the Tampa Bay NMC and other federal and state regulators have recognized the need to establish protective nutrient loads for each of the major bay segments of the Tampa Bay estuary.

As summarized above, there is considerable evidence that existing loads to the major bay segments of Tampa Bay provide for the full aquatic life protection and support for all designated uses in the estuary and are therefore within its assimilative capacity for nutrients. Thank you again for EPA's willingness to accept alternative resource-based approaches to address protection of downstream water quality that attains and maintains the State's designated uses in the Tampa Bay estuary. The Tampa Bay NMC looks forward to working with EPA to ensure that appropriate numeric nutrient criteria are finalized for the Tampa Bay estuary in EPA's promulgation of water quality standards for lakes, flowing waters, and estuaries in the State of Florida. If you require additional documentation and supporting materials for the docket to ensure that the above, proposed criteria are promulgated in EPA's final rules, please contact Holly Greening at the Tampa Bay Estuary Program directly (Email: hgreening@tbep.org; Phone: 727-893-2765).

Sincerely,

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Tampa Bay NMC Local Government Co-Chair
Manatee County

Jeff Stewart
Tampa Bay NMC Industry Co-Chair
The Mosaic Company

Cc: U.S. Sen. George LeMieux, U.S. Sen. Bill Nelson, U.S. Rep. Gus Bilirakis, U.S. Rep. Ginny Brown-Waite, U.S. Rep. Vern Buchanan, U.S. Rep. Kathy Castor, U.S. Rep. Adam Putnam, U.S. Rep. C.W. Bill Young

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[1]Tampa Bay Nitrogen Management Consortium Participants include:

Tampa Bay Estuary Program	City of Oldsmar
U.S. Environmental Protection Agency	City of Palmetto
MacDill Air Force Base	City of Plant City
Florida Department of Environmental Protection	City of Safety Harbor
Florida Department of Agriculture & Consumer Services	City of St. Petersburg
Florida Department of Transportation	City of Tampa
Southwest Florida Water Management District	Mosaic Company
Tampa Bay Regional Planning Council	Kinder Morgan Bulk Terminals, Inc.
Tampa Port Authority	Tampa Electric Company
Hillsborough County	CF Industries
Manatee County	CSX Transportation
Pasco County	Eastern Associated Terminals Co., LLC
Pinellas County	Tropicana Products, Inc.
Polk County	Kerry I&F Contracting
City of Bradenton	Tampa Bay Water
City of Clearwater	Trademark Nitrogen
City of Gulfport	Yara North America
City of Lakeland	Alafia Preserve, LLC
City of Largo	Eagle Ridge, LLC
City of Mulberry	LDC Donaldson Knoll Investments, LLC