



December 18, 2009

Peter Silva, Assistant Administrator for Water
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Tampa Bay Nitrogen Management Consortium's request to accept Tampa Bay's TMDL as the Interim Estuarine Loading Target for Tampa Bay

Dear Assistant Administrator Silva:

Recent discussions with U.S. Environmental Protection Agency (USEPA) and Florida Department of Environmental Protection (FDEP) personnel have informed the nitrogen management community of Tampa Bay, Florida that imminent freshwater nutrient criteria (draft due in January 2010) are required to protect downstream estuarine waters. In addition, nutrient criteria for estuarine waters (draft due in January 2011) will be required to be protective of their designated uses. We are very concerned that the interim loading targets for Tampa Bay may not be consistent with the federally-approved Total Maximum Daily Load (TMDL) for Total Nitrogen (TN) for Tampa Bay, and request that USEPA's January 2010 proposal identify the Tampa Bay TMDL loads as interim loading targets.

Over the past 15 years, the public and private partners of the Tampa Bay Estuary Program and Tampa Bay Nitrogen Management Consortium have validated that adopted TN loads are adequate to meet USEPA's regulatory needs for nutrient criteria. As explained in this letter, significant investment has occurred to meet these targets. Any suggestions that these targets are not valid could result in substantial delays in protection efforts.

In 1996, the Tampa Bay Estuary Program, local government and agency partners (including the USEPA) adopted numeric management targets to restore and protect seagrass beds and restore environmental conditions in the estuarine bay segments of Tampa Bay. These resource-based targets were developed using empirical and mechanistic models and a long-term water quality database initiated in 1974. Numeric management goals for seagrass acreage, and numeric targets for light attenuation, chlorophyll *a* concentrations, and the TN loads necessary to meet and maintain water quality targets that protect the designated use were adopted. A multi-pronged management strategy was implemented to meet these targets. Phosphorus was determined conclusively to not represent a limiting nutrient in the estuarine bay segments of Tampa Bay.

In 1998, the FDEP proposed and USEPA approved a TMDL for nitrogen for Tampa Bay required by Section 303(d) of the federal Clean Water Act. The TMDL TN loads were based on the resource-based management targets (water clarity, chlorophyll *a* concentrations and the TN loads observed to meet these targets) developed by the Tampa Bay Estuary Program partners to support designated uses of Tampa Bay. Since approval of the TMDL, chlorophyll *a* targets have been met in all four major bay segments, with the exception of one year in Lower Tampa Bay and two years in Old Tampa Bay. Seagrass acreage has increased by more than 4,800 acres bay-wide over this same period.

In December 2007, 40+ public and private participants in the Tampa Bay Nitrogen Management Consortium proactively committed to develop an equitable process to propose TN load allocations to all sources consistent with the TMDL. The Consortium participants developed a set of nitrogen wasteload and load allocations that equitably distribute the burden of nitrogen management across all sectors and sources of nitrogen loading within the basin, as well as the total maximum loading of nitrogen to each major bay segment ([link to RA Addendum](#)). USEPA and the FDEP are active participants in the Consortium, and provided written concurrence at each step of the process. In September 2009, the Consortium participants finalized their technical process, and proposed TN allocations to all 189 point and nonpoint sources within the Tampa Bay watershed. The Consortium understands that the proposed allocations will be incorporated into NPDES and MS4 permits.

The nitrogen targets that are being used in the Tampa Bay Nitrogen Management Consortium to meet the Tampa Bay TMDL are consistent with EPA guidelines outlined in the 2001 nutrient criteria technical guidance manual for estuaries (EPA-822-B-01-003). The TMDL loads are also consistent with the January 14, 2009 letter from Mr. Ben Grumbles (USEPA Assistant Administrator for Water) which explained the USEPA's determination, under Clean Water Act (CWA) section 303(c)(4)(8), that the development of numeric nutrient criteria would be necessary for the State of Florida. Specifically, the existing Tampa Bay TN nutrient management approach has the following attributes:

- It provides clear water quality goals and measurable quantitative baselines which are based on a sound scientific rationale and were developed in response to the bay's specific ecological needs;
- It was developed with considerable public and stakeholder input, and thus supports strong collaboration and effective partnerships with both point and nonpoint source dischargers of nutrient pollution;
- It protects the bay's nutrient-related designated uses as a Class III Florida estuary, as required by federal and state statutes and implementing regulations;
- It is already being implemented in a successful manner, thus avoiding potential delays in the State's ability to provide the needed protections for applicable designated uses;
- It is based on technically sound, site-specific analyses whose results are currently being used by State and Federal agencies in NPDES permits, TMDLs and other regulatory proceedings.

An important consideration of the Tampa Bay management plan is the understanding that Tampa Bay is a nitrogen-limited waterbody. Using information from published phytoplankton bioassays and water quality models, the Tampa Bay scientific and resource management community concluded that the Tampa Bay nutrient management effort should focus on nitrogen inputs. Geologically, the Tampa Bay watershed contains abundant phosphate deposits and the bay is naturally phosphate-rich. Over multi-decadal time scales, substantial changes in phytoplankton biomass, water clarity, dissolved oxygen and other indicators of bay trophic state have occurred in response to changing nitrogen loadings.

Based on the extensive and collaborative science-based definition of protective TN loads for designated uses of Tampa Bay as outlined above, we are confident that these TN loads are protective of the estuarine bay segments of Tampa Bay. The TMDL TN loads for Tampa Bay are defensible and protective of Tampa Bay's designated uses and living resources and therefore are suitable as regionally-appropriate numeric nutrient criteria.

On behalf of the public and private entities participating in the Tampa Bay Nitrogen Management Consortium, we respectfully request that USEPA accept and recognize the Consortium's TN loads as the Interim Estuarine Numeric Nutrient Loading Targets in the January 2010 draft documentation for freshwaters in the Tampa Bay watershed. We are looking forward to working with the USEPA and FDEP over the next year to ensure that the locally-derived TMDL loadings for Tampa Bay are considered as the Estuarine Numeric Nutrient Criteria for Tampa Bay.

Please do not hesitate to contact either of us or Holly Greening, TBEP Executive Director (hgreening@tbep.org; 727-893-2765) with any questions or comments about our request. We respectfully request a written response prior to the January 2010 release of the draft freshwater numeric nutrient criteria for Florida.

Sincerely,



Rob Brown
Manatee County
NMC Local Government Co-Chair



Jeff Stewart
Mosaic Fertilizer
NMC Industry Co-Chair

CC:

Ephraim King, Director, Office of Science and Technology
A. Stanley Meiburg, Acting Regional Administrator, USEPA Region 4
Jim Giattina, Director, Watershed Protection Division, USEPA Region 4
Suzanne Schwartz, Director, Office of Wetlands, Oceans and Watersheds
Michael Sole, Secretary, Florida Department of Environmental Protection
Jerry Brooks, Division Director, Environmental Assessment and Restoration, FDEP
Tampa Bay Nitrogen Management Consortium (list attached)

Tampa Bay Nitrogen Management Consortium Participants

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



Tampa Bay Nitrogen Management Consortium 2009 Reasonable Assurance Update Summary

BACKGROUND

- In 1998, USEPA approved a Total Maximum Daily Load (TMDL) for nitrogen for Tampa Bay required by Section 303(d) of the federal Clean Water Act, based on management targets developed by TBEP partners to support seagrass recovery.
- In 2007, USEPA and FDEP advised the Nitrogen Management Consortium that existing and future surface water discharge permit limits for entities discharging to Tampa Bay must not cumulatively exceed the federally-recognized TMDL for nitrogen loading, and that no new or renewed permits would be approved until facility-specific allocations consistent with the TMDL were developed.
- In December 2007, the Nitrogen Management Consortium proactively committed to develop an equitable process and define suggested allocations to all sources through the 2009 Tampa Bay Reasonable Assurance Addendum.
- The Consortium participants developed a set of nitrogen wasteload allocations that attempts to equitably distribute the burden of nitrogen management across all sectors and sources of nitrogen loading within the basin, as well as the total maximum loading of nitrogen to each major bay segment.

SUMMARY POINTS

1. **ALLOCATIONS ARE REQUIRED** consistent with the federally-recognized nitrogen TMDLs for existing NPDES permits to be renewed or new permits to be issued.
2. **SOUND TECHNICAL BASIS** is consistent with meeting water quality (chlorophyll-*a* thresholds) to support seagrass recovery in Tampa Bay.
3. **STANDARDIZED EQUITABLE ALLOCATIONS** have been developed for all entities and sources within the Tampa Bay watershed.
4. **PROCESS AND ALLOCATIONS WERE DEVELOPED BY CONSORTIUM PARTICIPANTS** proactively, thus precluding the need for FDEP or EPA to do so. EPA and FDEP have concurred with the Consortium's approach at each step of the process.
5. **COLLECTIVE COST-EFFECTIVE** analyses and allocations, at a much reduced cost per entity than if conducted individually, reflect consensus of over 50 participants.
6. **PROVEN RESULTS.** Since 1996 when the Consortium was initiated, annual water quality targets (chlorophyll-*a* thresholds) have been met 86.5% of the time. During this same period, seagrass coverage expanded by almost 10% (2,730 acres) to a baywide total of 29,647 acres.

KEY ELEMENTS OF PROPOSED ALLOCATIONS

The Consortium participants developed the following standard allocation protocol:

- All nitrogen sources, permitted and unpermitted, receive nitrogen load allocations. The cumulative allocated load is equal to the 1998 federally-recognized TMDL load for each segment.
- The five-year (2008-2012) average annual RA allocation for each source is equal to the 5-year annual average nitrogen load estimated for the years 2003-2007. Any exception to the standard allocation protocol is documented in the RA Addendum.
- The 2008-2012 RA nitrogen load allocation for each bay segment is completely distributed to existing sources. In the future new or expanded sources will be required to offset additional nitrogen loads, through documented load reduction actions, projects, or transfers.
- For the purpose of assessing the RA allocations, the annual nitrogen loads that can be received by each bay segment are adjusted to reflect the amount of water delivered during the year relative to that estimated for 1992-1994. Annual loads are thus normalized ('hydrologically normalized') to the TMDL hydrologic conditions.
- These annual hydrologic normalizations are not applied to surface water discharges from domestic wastewater treatment plans (WWTPs) or to material losses from industrial facilities, which have a fixed annual allocation (tons of nitrogen/year) that does not fluctuate with rainfall.
- Other sources, which are primarily rainfall driven, are provided a set percentage of the remaining total (hydrologically normalized) allocation for each year. In this manner, these rainfall-driven sources are assessed on a "sliding scale" related to the amount of water delivered, allowing higher nitrogen loads during wetter years and requiring lower loads during dryer years.

In the future, any major changes to these suggested allocations would be to address the following conditions:

- Chlorophyll-*a* conditions deteriorate in the bay as a result of changes in nitrogen loads;
- The federally-recognized TMDL is revised to account for the assimilative capacity of the bay; or
- FDEP-approved transfers occur among permitted entities on a case-by-case basis, as indicated in resulting permit modifications.

IMPORTANT CONSIDERATIONS

EPA defines a TMDL as the maximum amount of contaminant that a waterbody can receive and still maintain water quality standards. This maximum amount is considered the waterbody's "assimilative capacity" for the specific water quality parameter.

- The TBEP management targets for nitrogen loading were not developed as the nitrogen assimilative capacity for Tampa Bay. Subsequent annual observations show that water quality targets are met in most years when estimated nitrogen loads are higher than the 1992-1994 estimates, indicating that the existing federally-recognized nitrogen TMDL may not reflect the current assimilative capacity of Tampa Bay.
- Although the Consortium participants recognize that the existing federally-recognized TMDL may not reflect Tampa Bay's assimilative capacity, participants also wish to allow permits to be issued with equitable allocations while the assimilative capacity for nitrogen is evaluated.

DECLARATION

The Declaration language, for consideration by Boards, Councils and private entity authorities, is as follows. Exhibit "A" is the technical document describing the process and allocations developed by the Consortium participants.

DECLARATION OF THE TAMPA BAY NITROGEN MANAGEMENT CONSORTIUM

**PARTICIPANTS IN THE TAMPA BAY NITROGEN MANAGEMENT
CONSORTIUM DECLARE THEIR INTENT TO IMPLEMENT THE 2009 TAMPA
BAY REASONABLE ASSURANCE ADDENDUM AS FOLLOWS TO ENSURE
CONTINUING RECOVERY OF THE TAMPA BAY ESTUARY:**

The undersigned Consortium participant hereby accepts the 2009 Tampa Bay Reasonable Assurance Addendum and agrees with the undersigned Consortium participant's nitrogen load allocations established by the Consortium for the 2008-2012 Reasonable Assurance period (as described in Exhibit "A").