

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").