



TOTAL MAXIMUM DAILY LOAD



The Hillsborough River, a highly urbanized waterway located within the City of Tampa, is a significant tributary to Tampa Bay. Bacterial contamination (fecal coliform) from human impacts such as sanitary sewer overflows, malfunctioning septic systems, the homeless population, pet waste, and agricultural drainage has impaired the river and threatened coastal swimming, fishing, and shellfish harvesting. As required by Section 303(d) of the Clean Water Act, the Tampa Bay Estuary Program (TBEP) and its many partners are working to improve the water quality on the lower Hillsborough River by developing an implementation plan to address state and Federal Total Maximum Daily Load (TMDL) requirements. TMDLs are measures that specify the maximum amount of pollutant a waterbody can receive and still meet water quality standards.

THE NATIONAL ESTUARY PROGRAM IN ACTION

Tampa Bay Estuary Program

To implement the TMDL, the TBEP collaborated with stakeholders to develop a Basin Management Action Plan (BMAP)—a watershed-based approach to identify and address water quality impairments in a major drainage basin in Hillsborough County.

The team reviewed existing water quality information, developed an inventory of existing or planned pollution reduction projects, identified new issues and information gaps, and developed comprehensive plans to address sources of pollution. A microbial source tracking program was



also developed to help assess the causes of bacterial contamination in different portions of the river. The BMAP draft identified three key management steps for their potential to remove Hillsborough River from the 303(d) list of impaired waters for bacterial contamination.

The three key actions in the draft BMAP are:

- Installation of auxiliary battery-powered generators at sanitary sewer pump stations throughout the City of Tampa to prevent sewer overflows during power outages

EFFECTIVE



EFFICIENT



ADAPTIVE



COLLABORATIVE

CLEAN WATER ACT – TOTAL MAXIMUM DAILY LOAD (TMDL)

The goal of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of our nation's waters. Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of waterbody segments impaired by a pollutant and needing a Total Maximum Daily Load (TMDL).

A TMDL specifies the maximum amount of a pollutant a waterbody can receive and still meet water quality standards. A TMDL is made up of the sum of all point source loads ("wasteload allocation") and load associated with non-point sources ("load allocation"). National Estuary Programs develop strategies to help attain or maintain water quality standards through mechanisms such as TMDLs.

- Comprehensive, integrated stormwater treatment planning and implementation
- Enhanced educational programming to increase public awareness of the proper disposal of pet waste

TBEP has already made significant gains in awareness efforts to educate the community about improperly disposed-of pet waste and its effect on water quality. During a single pilot

project, they were able to effect a 46 percent decrease in waste piles in one neighborhood—and efforts are now under way throughout the watershed.

The team—including the Environmental Protection Commission of Hillsborough County, city and county public works, planning and water departments, health departments, the Southwest Florida Water Management District, private industries, scientists, and citizens—will sub-

mit its draft BMAP to the Florida Department of Environmental Protection in summer 2009.

Visit **www.tbep.org** to learn more about this and other TBEP efforts.

EPA's National Estuary Program (NEP) is a unique and successful coastal watershed-based program established in 1987 under the Clean Water Act Amendments. The NEP involves the public and collaborates with partners to protect, restore, and maintain the water quality and ecological integrity of 28 estuaries of national significance located in 18 coastal states and Puerto Rico.

For more information about the NEP go to www.epa.gov/owow/estuaries.