

Program Name: Water Quality
Project name: Total Maximum Daily Load (TMDL) for South Florida
Project ID: 1600
Lead Agency: Florida Department of Environmental Protection
Authority: 403.067, F.S.

Strategic Plan Goal(s) Addressed: 1.B.2: Get the Water Quality Right: Prepare locally-based plans to reduce pollutants as determined necessary by the total maximum daily loads by 2011.

Measurable Output(s): Basin Assessments, Identifying Impaired Waters, Supplemental Data Collection, Develop TMDLs, Basin Management Action Plans, Implementation Plans, Verification WQ Standards have been met

Project Synopsis: During the first phase, the water quality data for each basin will be assessed in detail, including the identification of waters for which TMDLs will be developed. Once a basin assessment report and a Plan of Study are completed, intensive monitoring will be conducted in the basin to supply any additional data needed to model the impaired waters in the basin and generate TMDLs. During the third phase, TMDLs will be calculated and then allocated to individual point sources and the major categories of nonpoint sources. After TMDLs are approved, a consensus-based basin management action plan (BMAP), which will include a TMDL implementation plan, will be developed during the fourth phase. The implementation plan will include more detailed allocations to nonpoint sources, but the allocations will be voluntary if the sources are currently outside of the State's regulatory authority. Once these plans have been adopted and implemented, verification (using added WQ monitoring data, evaluations of beach closure reports, or number of fish kills, for example) will allow waters to be certified as meeting water quality standards.

Current Status: Since 2008, the Department has completed and adopted by rule TMDLs identifying needed reductions for nutrients and/or to address low dissolved oxygen levels in the St Lucie-Loxahatchee Basin (including the Estuary, North Fork, South Fork, C-44, C-24, C-23 canals, Bessey Creek, and Southwest Fork Loxahatchee River), and for nutrients in the estuarine portion of the Caloosahatchee (below the Franklin Locks) and for fecal coliforms in Trout Creek (Caloosahatchee Basin) and Ten Mile Creek (St Lucie-Loxahatchee Basin). In addition, three TMDLs were adopted in the Charlotte Harbor Basin (dissolved oxygen TMDL for Coral Creek-East Branch, plus fecal coliform TMDLs for Gottfried Creek and the North Prong of Alligator Creek). One TMDL was adopted in the Everglades Basin (West Palm Beach Canal Fecal Coliform TMDL). Seven TMDLs were completed for nutrients, dissolved oxygen, unionized ammonia, or fecal coliforms in the Everglades West Coast Basin (1 for Cocohatchee River Estuary, 1 for the Gordon River, 3 for Hendry Creek, 1 for the Imperial River, and 1 for Lake Trafford). A fecal coliform TMDL was adopted for the E-1 Canal in the Lake Worth Lagoon Basin. In 2011, the Department proposed TMDLs to address high fecal coliforms concentrations in 20 water bodies located in the Southeast Coast region of the state, ranging from St Lucie County to Miami-Dade. These TMDLs have now been adopted into rule and became effective May 14, 2012.

The Department is awaiting EPA's approval of TMDLs to address nutrients and dissolved oxygen impairments for five lakes in the Kissimmee River Basin (Lake Cypress, Lake Holden, Lake Jackson, Lake Kissimmee, and Lake Marian). These TMDLs were proposed on September 12, 2013 (and re-proposed in response to public comments on October 23). They became effective on December 17, 2013.

The Department is currently developing TMDLs for nutrients and dissolved oxygen in the upper Caloosahatchee River and multiple tributaries located throughout the watershed. As part of this effort, the Department is revisiting and potentially revising the TMDLs for the lower Caloosahatchee River.

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(The Franklin Lock and Dam, S-79, divides the upper from the lower river.) The Division hosted three public meetings in June and August of 2013, and May of 2014. The Department is currently completing the modeling, selecting TMDL targets, and anticipates finalizing the TMDL in October 2014..

During state fiscal year 2014 - 2015, the Department intends to initiate rulemaking projects to develop nutrient TMDLs for the following water bodies in South Florida: Ten Mile Creek (St. Lucie-Loxahatchee Basin); Rookery Bay Coastal Segment (Everglades West Coast Basin); Chandler Hammock Slough, Popash Slough, and Lettuce Creek (Lake Okeechobee Basin); and Mud Lake and Lake Juliana (Withlacoochee Basin).

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Statewide Mercury TMDL: In October 2013, the U.S. Environmental Protection Agency approved Florida's statewide TMDL for mercury. The statewide TMDL for fresh and marine waters was the most comprehensive approach offering the most protection for the people of Florida. This approach addressed the following concerns: possible elevated levels of mercury in fish in Florida's fresh and marine waters that were not assessed, adjacency of waterbodies, mobility of marine species, and atmospheric deposition of mercury (the dominant source of mercury). The TMDL is now in effect and will be incorporated into new and renewal discharge permits for industrial and large domestic wastewater facilities.

A Basin Management Action Plan (BMAP) is the "blueprint" for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load (TMDL). It represents a comprehensive set of strategies--permit limits on wastewater facilities, urban and agricultural best management practices, conservation programs, financial assistance and revenue generating activities, etc.--designed to implement the pollutant reductions established by the TMDL. These broad-based plans are developed with local stakeholders--they rely on local input and local commitment--and they are adopted by Secretarial Order to be enforceable.

In early 2013, the Department initiated a BMAP for the Lake Okeechobee Watershed that will identify projects and activities need to restore water quality such that it meets the designated uses in these watersheds. The Lake Okeechobee BMAP will build upon the decade plus work already done under the Lake Okeechobee Watershed Protection Program. The Department hired a contractor to collect [data and develop a nutrient budget development to develop BMAP allocations for Lake Trafford](#). In addition, the following BMAPs were recently completed for the Caloosahatchee, Everglades West Coast, and St. Lucie basins:

- **St. Lucie River and Estuary (May 2013)**

The St. Lucie River and Estuary Basin Management Action Plan represents the collaborative effort of Martin County, Okeechobee County, St. Lucie County; the cities of Fort Pierce, Port St. Lucie, Stuart, and Town of Sewall's Point; Copper Creek Community Development District (CDD), Tradition CDD, Verano CDD; Hobe St. Lucie Conservancy District, North St. Lucie River Water Control District (WCD), Pal Mar WCD, Troup-Indiantown WCD; Florida Department of Transportation; Florida Turnpike Authority; Florida Department of Agriculture and Consumer Services; and South Florida Water Management District to identify and implement the management strategies necessary to achieve the nutrient and dissolved oxygen total maximum daily loads for the St. Lucie River and Estuary Basin.

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▪ **Caloosahatchee Estuary Basin (November 2012)**

The Caloosahatchee Estuary Watershed Basin Management Action Plan was prepared as part of a statewide watershed management approach to restore and protect Florida’s water quality. This document was developed by the Caloosahatchee River stakeholders, with participation from affected local, regional, and state governmental interests; elected officials and citizens; and private interests. The purpose of this BMAP is to implement TN reductions for the portion of the loading generated in the Caloosahatchee Estuary Basin.

▪ **Everglades West Coast Basin (November 2012)**

The Everglades West Coast Basin Management Action Plan was prepared as part of a statewide watershed management approach to restore and protect Florida’s water quality. It was developed by the Everglades West Coast stakeholders, with participation from affected local, regional, and state governmental interests; elected officials and citizens; and private interests. The purpose of this BMAP is to implement TN reductions for the Hendry Creek and Imperial River Basins to achieve the TMDLs for DO.

Cost:

Total:	\$1,300,000
Project Development:	\$1,000,000*
Land Acquisition:	Unknown
Implementation:	\$300,000
Operations and maintenance:	Unknown

*includes \$30,000 for state-wide mercury TMDL

Project Schedule:

Start Date: July 1, 2000

Finish Date: Upon Completion (Current schedule runs to 2015)

Total Maximum Daily Load (TMDL) for South Florida Detailed Project Budget Information- (\$1000)						
	Thru 2009	2010	2011	2012	2013	TOTAL
Federal						
State	6,660	1,300	1,300	1,300	1,300	TBD
Other						
Total	6,660	1,300	1,300	1,300	1,300	TBD

Hyperlink: <http://www.dep.state.fl.us/water/tmdl/index.htm>

<http://www.dep.state.fl.us/water/watersheds/bmap.htm>

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