

## THE TOTAL MAXIMUM DAILY LOAD PROGRAM - OVERVIEW

### What is a TMDL?

#### Total Maximum Daily Load

- A TMDL is the maximum amount of a given pollutant that a water body can absorb and still maintain its designated uses (e.g., drinking, fishing, swimming, shellfish harvesting). One water body may have several TMDLs, one for each pollutant that exceeds the water body's capacity to absorb it safely.
- Under Section 303(d) of the federal Clean Water Act and the Florida Watershed Restoration Act, TMDLs must be developed for all waters that are not meeting their designated uses and, consequently, are defined as "impaired waters."

### What do we expect to accomplish through the TMDL Program?

- **Cleaner Water** through more collaborative restoration efforts, with increased public involvement.
- **Better Use of Science** to understand how human activities affect water resources in specific locations and cumulatively throughout our watersheds.
- **Better Protection** for water bodies, as people give more attention to preventing and reducing human impacts on water resources.
- **Better Working Relationships** among people and organizations at all levels in the public and private sectors.

### How will TMDLs be developed and implemented?

TMDLs will be developed, allocated, and implemented through a **watershed-based management approach** (managing water resources within their natural boundaries) that addresses the state's 52 major hydrologic basins in five groups.

**Basins by Group and DEP District Office**

DEP District	Group 1 Basins	Group 2 Basins	Group 3 Basins	Group 4 Basins	Group 5 Basins
NW	Ochlockonee-St. Marks	Apalachicola-Chipola	Choctawhatchee-St. Andrews Bay	Pensacola Bay	Perdido Bay
NE	Suwannee	Lower St. Johns		Nassau-St. Marys	Upper East Coast
Central	Ocklawaha	Middle St. Johns	Upper St. Johns	Kissimmee	Indian River Lagoon
SW	Tampa Bay	Tampa Bay Tributaries	Sarasota Bay-Peace-Myakka	Withlacoochee	Springs Coast
S	Everglades West Coast	Charlotte Harbor	Caloosahatchee	Fisheating Creek	Florida Keys
SE	Lake Okeechobee	St.Lucie-Loxahatchee	Lake Worth Lagoon-Palm Beach Coast	Southeast Coast Biscayne Bay	Everglades

**Each group will undergo a cycle of five phases on a rotating schedule** (see table on following page):

**Phase 1:** *Preliminary Evaluation* of water quality

**Phase 2:** *Strategic Monitoring and Assessment* to verify water quality impairments

**Phase 3:** *Development and Adoption of TMDLs* for waters verified as impaired

**Phase 4:** *Development of Basin Management Action Plan (B-MAP)* to achieve the TMDL

**Phase 5:** *Implementation* of the BMAP and monitoring of results

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### *Basin Rotation Schedule For TMDL Development and Implementation*

YEAR*	00	01	01	02	02	03	03	04	04	05	05	06	06	07	07	08	08	09	09	10
Group 1	PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5	
Group 2			PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 1		PHASE 2		PHASE 3		PHASE 4	
Group 3					PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 1		PHASE 2		PHASE 3	
Group 4							PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 1		PHASE 2	
Group 5									PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 1	
1 <sup>st</sup> Five-year Cycle – High-priority Waters											2 <sup>nd</sup> Five-year Cycle – Medium-Priority Waters									

*\*Projected years for phases 3, 4, and 5 may change due to accelerated local activities, length of plan development, legal challenges, etc.*

### What specific activities take place in each phase and how are stakeholders involved?

#### Phase 1

- DEP conducts an initial water quality assessment in the basin, working with stakeholders to determine information required, accepted methods of data collection and analysis, and quality control/quality assurance requirements; develops basin planning list of potentially impaired waters, develops strategic monitoring plan for further data collection.

**Stakeholder Involvement** – Close coordination with local stakeholders to conduct a preliminary basin water quality assessment; inventory existing and proposed management activities; identify management objectives and issues of concern; develop a strategic monitoring plan; and produce a preliminary Basin Status Report that includes a list of potentially impaired waters.

#### Phase 2

- DEP, in cooperation with local monitoring entities and WMDs, conducts strategic monitoring to meet priority information needs; conducts integrated monitoring assessment using EPA guidance; derives revised planning list and a draft verified list of impaired waters for public comment; Secretary adopts Group-specific verified list of impaired waters by rule for submittal to EPA as 303(d) waters for which TMDLs will be established.

**Stakeholder Involvement** – Cooperative efforts between the Department and local stakeholders to collect additional data; get data into STORET; complete water quality assessment; produce a final Basin Assessment Report that includes a planning list and a draft verified list of impaired waters for secretarial adoption.

*During the first two phases of the cycle, stakeholders may submit documentation for review by DEP, to establish **reasonable assurance** that existing or proposed pollution control mechanisms are sufficient to attain water quality standards in a water segment without a TMDL.*

#### Phase 3

- For water bodies or segments on the adopted verified list of impaired waters, DEP will develop and adopt TMDLs and “reasonable and equitable load allocations” among point and nonpoint sources, with input from stakeholders. During **Phase 3**, DEP establishes TMDLs for water bodies or water segments verified as impaired, using computer modeling to estimate nonpoint source loadings and establish the water body’s assimilative capacity.

**Stakeholder Involvement** – Coordination with stakeholders on model framework, including model requirements, parameters to be modeled, model endpoints, design run scenarios, and preliminary allocations; communication of science used in the process; input from stakeholders on allocations; public workshops for rule adoption of TMDLs and allocations.

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### Phase 4

- DEP will invite parties potentially affected by TMDLs to participate in discussions on allocations and implementation strategies.
- DEP will work with WMDs, DACS, and other agencies to provide technical resources and assistance to stakeholder group and help identify potential funding mechanisms available to achieve load reductions.
- Affected stakeholders will work with DEP and other affected agencies to reach consensus on load reduction allocations and strategies, leading to development of a Basin Management Action Plan (B-MAP) to achieve established TMDLs.
- DEP will make the B-MAP available for public review and comment.

**Stakeholder Involvement** – Broad stakeholder participation in developing a Basin Management Action Plan (including allocations), incorporating it into existing management plans where feasible; public meetings during the planning process.

### Phase 5

- As directed by the Florida Watershed Restoration Act, DEP will take the lead in coordinating the implementation of TMDLs, which may be carried out through non-regulatory and existing regulatory water quality protection programs.
- DACS has agreed to take the lead in ensuring that allocations to agricultural nonpoint sources are met, and will work with farmers in the basin to develop BMPs and facilitate their implementation, including providing assistance in obtaining funding. The DACS Division of Forestry will take the lead in ensuring that the allocation to silviculture is met.
- Other regional and state agencies will assist in implementation as provided in the B-MAP.
- Local entities will implement local government NPDES stormwater programs, local restoration projects, private sector partnerships, BMPs, etc., as provided in the B-MAP.

**Stakeholder Involvement** – Emphasis on implementing the B-MAP, other voluntary stakeholder actions, and local watershed management structures; DEP will continue to provide technical assistance, fulfill oversight responsibilities, and administer NPDES point and nonpoint source permits.

### Tracking, Monitoring, Evaluation

- DEP will continue its efforts to strengthen coordination between federal, state, regional, local monitoring and help implement the monitoring plan developed as part of the B-MAP.

### Who will be affected by TMDLs and how?

Pollutants can enter a water body through point source discharges (generally from a specific facility) or nonpoint discharges (e.g., stormwater runoff, septic tanks). Government agencies, businesses, organizations, and individuals who contribute to these discharges will be asked to share the responsibility of attaining TMDLs through load allocations (the amount of a specified pollutant allotted for discharge) that are based on an established TMDL. Those potentially affected, and the actions they may be asked to take to help achieve a TMDL, are summarized below.

Potentially Affected Stakeholders	Actions to Achieve TMDL
Municipal stormwater/wastewater programs	Reduce and treat urban stormwater runoff through stormwater retrofit, septic tank replacement
Farming and silviculture operations	Reduce and treat runoff through best management practices (BMPs)
Municipal and industrial wastewater treatment facilities, NPDES permitted facilities	Reduce pollutant loadings from permitted discharges
Commercial developers, homebuilders, individual home owners	Improve development design and construction, enhance BMPs, replace septic tanks
Federal, regional, state agencies; regional and local water quality coalitions	Carry out water body restoration projects

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### What are some of the benefits of the TMDL program?

As part of a watershed-based management approach, the TMDL program will:

- **Produce better monitoring and more effective use** of existing and new water quality information.
- **Provide restoration and prevention targets** and define responsibility for management actions.
- **Build on and enhance existing restoration efforts** of local governments, water management districts, established coalitions, the Department, and others.
- **Focus funding and other resources** on priority water resource problems.
- **Trigger improvements in stormwater management** by local governments, industry, agriculture, private developments, businesses, and others.
- **Stimulate new approaches to land use design and development** that minimize associated water resource problems.

### How do I get additional information?

For additional information on the Watershed Management Program and TMDLs, please contact these watershed coordinators in the Bureau of Watershed Management, Watershed Planning and Coordination Section:

For additional information on the Watershed Management Program and TMDLs, please contact these watershed coordinators:

- *Southwest Florida and Lake Okeechobee*, Pat Fricano (850) 245-8559
- *Southeast Florida and Ochlockonee-St. Marks Basins*, Rick Hicks (850) 245-8558
- *Northwest and Central Florida*, Mary Paulic, (850) 245-8560
- *Northeast Florida and Suwannee Basin*, John Abendroth (850) 245-8557
- *West Central Florida and Tampa Bay Region*, Tom Singleton (850) 245-8561

For information on establishing and implementing TMDLs, contact Jan Mandrup-Poulsen in the Watershed Assessment Section at (850) 245-8448. Additional information is on the Department's web page at [www.dep.state.fl.us/water/watersheds/index.htm](http://www.dep.state.fl.us/water/watersheds/index.htm).

### Other key contacts in the Bureau of Watershed Management:

- Eric H. Livingston, Bureau Chief                      Phone: (850) 245-8430                      SUNCOM: 205-8430
- Daryll Joyner, TMDL Program Administrator                      Phone: (850) 245-8431                      SUNCOM: 205-8431
- Fred Calder, Section Administrator  
Watershed Planning and Coordination Section                      Phone: (850) 245-8555                      SUNCOM: 205-8555

### Other TMDL-related DEP and EPA Websites:

- **US Environmental Protection Agency**  
*Total Maximum Daily Load Program:* <http://www.epa.gov/owow/TMDL>
- **Florida Department of Environmental Protection**  
*Total Maximum Daily Load Program:* <http://www.dep.state.fl.us/water/tmdl>  
*The 2000 305(b) Report:* <http://www.dep.state.fl.us/water/305b>  
*Stormwater/Nonpoint Source Pollution:* <http://www.dep.state.fl.us/water/stormwater>