

Chapter 3: 2007 Minimum Flows and Levels Priority List and Schedule

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INTRODUCTION

Minimum Flows and Levels (MFLs) provide technical criteria that are an important management tool used by the South Florida Water Management District (SFWMD or District) to protect major water bodies from significant harm due to reduction in water levels or flows. These criteria also provide a basis for defining the point at which additional consumptive use permit withdrawals will result in significant harm to water resources. MFLs are established based on the best available information. Protection of non-consumptive uses may be considered and provided for in the establishment of MFLs [Section 373.042, Florida Statutes (F.S.)]. A baseline condition for the protected resource functions must be identified through consideration of changes and structural alterations in the hydrologic system [Section 373.042(1), F.S.]. If it is determined that water flows or levels are presently below the MFL or will fall below an established MFL within the next 20 years, then the water management district must develop and implement a recovery or prevention strategy [Section 373.0421(2), F.S.].

The District is required to establish MFLs for waters of the state that are listed on the MFLs Priority List and Schedule for Establishment. The list is developed by the District with consideration of additional information and comments from the Florida Department of Environmental Protection (FDEP) and other agencies. The schedules for developing MFLs and projects that may be part of recovery or prevention strategies are also provided in the District's regional water supply plans (see Chapter 5 of this volume). The MFLs Priority List and Schedule for Establishment also includes the name of the water body and the date (calendar year) in which the MFLs will be established. An opportunity to modify this list is provided each year by the FDEP.

The District has additional authority, under Section 373.223(4) F.S., to "reserve from use by permit applicants water, in such locations and quantities and for such seasons of the year, as may be required for protection of fish and wildlife or the public health and safety." Whereas the MFL criteria are appropriately used to *prevent significant harm* from occurring to water resources, the District expects that water reservations will provide a higher standard, i.e., *to protect* fish and wildlife resources. The SFWMD recently began efforts to develop Initial Water Reservations (IWRs) for some natural areas within its jurisdiction based on evaluation of existing water availability and consideration of future water needed to achieve system restoration. This chapter also includes the list and schedule for development of IWRs.

To date, MFL criteria have been adopted for 12 water bodies within the SFWMD, including eight water bodies in 2001, two in 2002, and two in 2006. These water bodies include Lake Okeechobee, four areas of the Everglades, the northern portion of the Biscayne aquifer, Lower West Coast deeper aquifers, Caloosahatchee River, St. Lucie River and Estuary, the Northwest Fork of the Loxahatchee River, and Lake Istokpoga. Adoption of the final MFL rule for Florida

Bay was completed in December 2006 (**Figure 3-1**). Further details on MFLs can be found on the District’s web site at www.sfwmd.gov under the *What We Do, Water Supply, Minimum Flows and Levels* section.

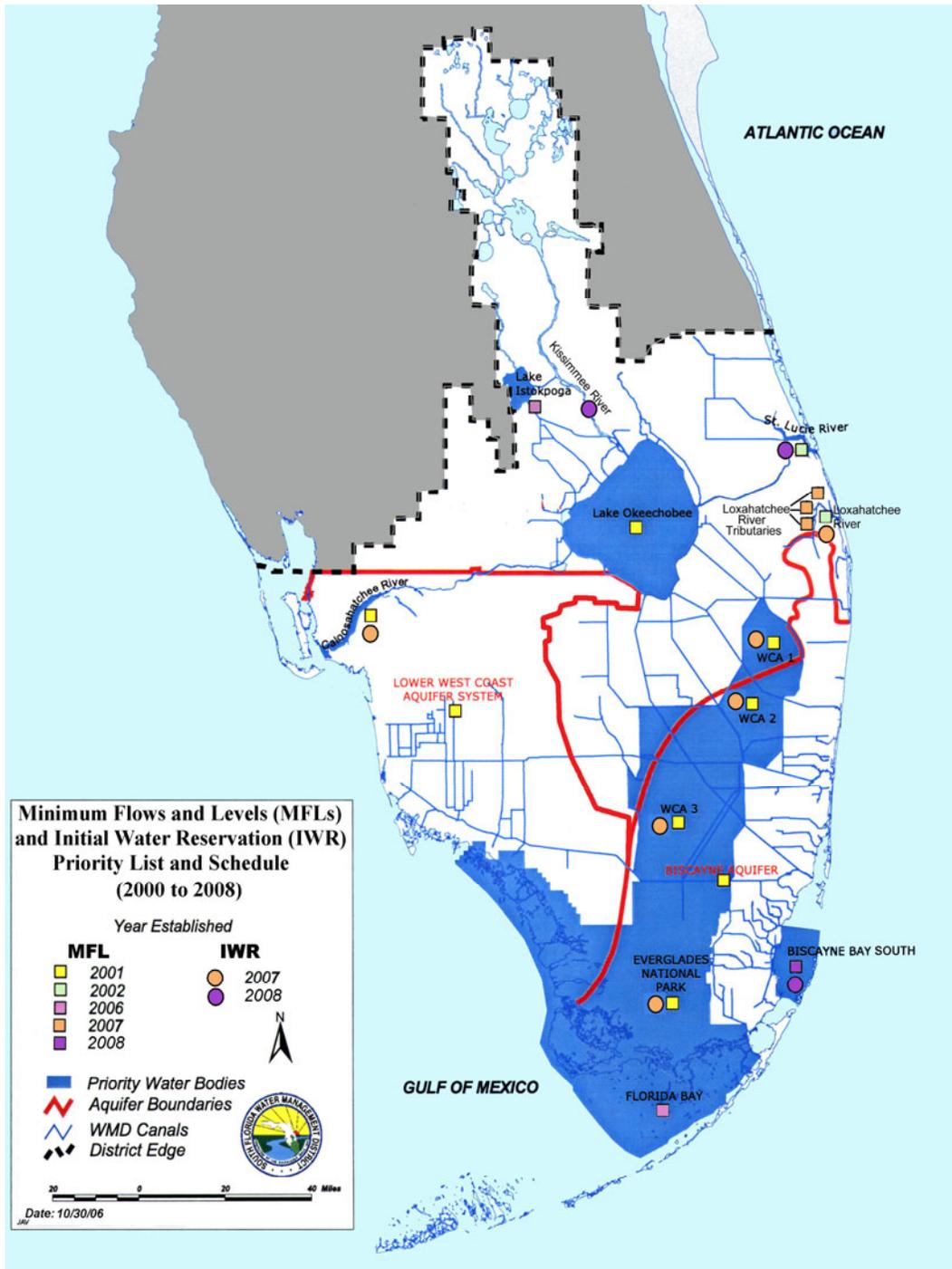


Figure 3-1. Water bodies on the 2007 Minimum Flows and Levels (MFLs) Priority List and Schedule for Establishment, water bodies for which Initial Water Reservations (IWR) are being developed, and the date (calendar years) for when the rules for these water bodies are scheduled to be adopted.

DEVELOPMENT OF CRITERIA

Minimum Flows and Levels (MFLs) criteria are developed pursuant to the requirements contained within Sections 373.042 and 373.0421, Florida Statutes (F.S.), of the Florida Water Resources Act. These statutes require Florida's water management districts to establish MFLs for surface waters and aquifers within their jurisdiction [Section 373.042(1), F.S.]. The minimum flow is defined as the "limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area."

Based on the MFL Priority List and Schedule for Establishment, the District undertakes research, analysis, and interpretation of data necessary to develop "technical criteria" for each water body to determine low water conditions (water levels and/or flows) that may cause significant harm to water resources of the region. The criteria typically consist of a minimum water level or flow rate, a duration of time that this level can occur before damage occurs, and a return frequency (that is, how often such conditions can occur over a specified time period). These technical criteria may be required to undergo peer review if the basis for MFL establishment is questioned by the public, engineers, or other scientists. Otherwise, these criteria may be voluntarily subjected to scientific peer review.

Once the proposed technical criteria are approved by the District's Governing Board, rule development and rulemaking processes, including public workshops and opportunities for administrative challenge, are initiated to implement these criteria. This developed rule defines the resources that are at risk and the water levels or flows necessary to protect these resources from significant harm. The MFL is not considered to be "established" until the final rule is approved and adopted.

2007 PRIORITY LIST

The 2007 MFLs Priority List and Schedule for Establishment (**Table 3-1**) was approved by the District's Governing Board on October 12, 2006. A letter was subsequently sent by the District to the FDEP in accordance with Section 373.042(2), F.S. The MFLs list shown in **Table 3-1** reflects one revision to include additional time needed to address restoration and long-term management issues in Biscayne Bay – South. The SFWMD is currently waiting to receive comments and approval from the FDEP on the updated list. Upon FDEP's approval, the list will be published in the Florida Administrative Weekly.

Table 3-1. 2007 MFLs Priority List and Schedule for Establishment.

Region	Priority Water Body	Calendar Year to be Established
Lower East Coast	Loxahatchee River, Northwest Fork tributaries	2007
	Biscayne Bay – South	2008

CHANGES IN THE 2007 PRIORITY LIST

CONSIDERATIONS FOR DEVELOPING THE 2007 LIST

Since the 2006 MFLs Priority List and Schedule for Establishment was approved on November 5, 2005, the District has developed MFL criteria for Lake Istokpoga and Florida Bay. The Lake Istokpoga MFLs rule was officially adopted in February 2006. The Florida Bay rule was approved by the District's Governing Board in September 2006 and the final rule for the bay was adopted in December 2006.

The SFWMD recently began efforts to develop Initial Water Reservations (IWRs) for natural areas within its jurisdiction. The most critical resources are those that are (1) linked to regional water management facilities, (2) subject to restoration efforts such as the Comprehensive Everglades Restoration Plan, and (3) at risk that additional water may be removed from these systems by pending requests for increased consumptive use withdrawals, prior to completion of restoration projects. The most critical water bodies based on these criteria include the Everglades, Northwest Fork tributaries of the Loxahatchee River, Caloosahatchee River, Biscayne Bay – North, St. Lucie River and Estuary, and Kissimmee River.

Whereas the MFL criteria are appropriately used to protect water resources that are presently experiencing or likely to experience significant harm, the District expects that the IWRs will provide additional protection for fish and wildlife resources within some of these areas. Reservations may also provide a more appropriate basis for restricting consumptive use water allocations than is provided by the MFLs, but it will take some time and experience with the use of this tool to determine its effectiveness. Some areas may require development of both MFL criteria and a water reservation to ensure adequate resource protection.

The workload for developing MFLs (i.e., the amount of study, analysis, documentation, and interaction with the public and other agencies) is considerable. However, due to competing, high-priority restoration initiatives, no additional District staff resources are presently available for this effort. The effort to establish IWRs for critical water bodies requires many of the same staff that is presently developing MFLs. Therefore, the schedule for developing IWRs (**Table 3-2**) takes into consideration the projected staff resources available.

Table 3-2. 2007 Priority List and Schedule for developing Initial Water Reservations (IWRs).

Region	Priority Water Body	Calendar Year to be Established
Lower East Coast	Everglades (Everglades National Park and Water Conservation Areas)*	2007
	Northwest Fork of Loxahatchee River	2007
	Biscayne Bay – South**	2008
Lower West Coast	Caloosahatchee River	2007
Upper East Coast	St. Lucie River and Estuary	2008
Kissimmee Basin	Kissimmee River	2008

* Approach for initial reservation will be reassessed after the Regional Water Availability Rule is completed.

** Independent scientific peer review of available science for Biscayne Bay will be conducted in 2007.

More water bodies will be added to the priority list in future years, as areas with the most critical needs are prioritized, associated planning and restoration efforts proceed, and MFLs or water reservation studies are initiated. Each area will be carefully evaluated to determine which of these tools (MFLs and/or reservations) can provide the most effective protection of South Florida's water resources. Two areas that are presently under consideration for possible inclusion on either the MFLs or water reservation priority list are the Kissimmee Chain of Lakes and Rookery Bay.

The policy issues surrounding development of MFLs have become more complex in areas where there is significant competition for available water resources. More emphasis is currently being placed on protection of resources in these critical areas; water bodies where competition for available water is not an immediate issue were removed from the list.

EXPLANATION OF CHANGES FROM THE 2006 LIST

As previously noted, the 2007 MFLs Priority List and Schedule for Establishment shown in **Table 3-1** reflect additional time needed to address restoration and long-term management issues in Biscayne Bay. During 2006, the SFWMD continued efforts, in cooperation with the U.S. Department of the Interior (USDO I) and three of its key organizations (U.S. Fish and Wildlife Service, Everglades National Park, and Biscayne National Park), to develop an integrated set of restoration goals and targets for Biscayne Bay, Florida Bay, and the Everglades. The intent is to identify long-range management goals and objectives that balance water needs and distribution requirements of areas within the Everglades, Florida Bay, and Biscayne Bay that are of critical importance to the future of South Florida. This effort is still under way, and further updates are expected to be reported in future SFERs.

While the USDO I groups and the District have made significant progress in recent months to address technical, resource, policy, and modeling issues, the development of the MFL technical criteria for Biscayne Bay has been delayed. The National Park Service has recently identified long-term goals for management of Biscayne Bay, which is a critical step toward characterizing the condition of the existing system, and therefore the nature of a restoration efforts that may be needed. With these remaining issues expected to be addressed in 2007, it is anticipated that the District will shortly move forward with efforts to adopt MFL criteria, and possibly an IWR, by 2008.

FDEP COMMENTS ON THE 2006 PRIORITY LIST

A letter describing the 2006 MFLs Priority List and Schedule for Establishment was sent to FDEP in November 2006. FDEP comments are expected to be received by January 2007.

CHANGES CONTEMPLATED FOR 2008

No further changes are currently proposed or expected to the MFLs Priority List and Schedule for Establishment for 2008.