

# Memorandum



**Date:** February 6, 2007

Agenda Item No. 12(B)1

**To:** Honorable Chairman Bruno A. Barreiro and  
Members, Board of County Commissioners

**From:** George M. Burgess  
County Manager

A handwritten signature in black ink, appearing to read "George M. Burgess". The signature is written in a cursive style and is positioned over the printed name of the County Manager.

**Subject:** Water Shortage Warning issued by the South Florida Water Management District

On November 9, 2006 the South Florida Water Management District Governing Board (District) issued a "Declaration of Water Shortage Warning" (Order No. 2006-164-DAO-WS). Though no mandatory water restriction will be issued as part of this warning, the District is encouraging water utilities and local governments to voluntarily implement water conservation measures to reduce their water consumption as part of their daily operations. This preventive measure could potentially avoid or forestall water shortage orders and mandatory water restrictions later in the dry season, which runs from November through May. Miami-Dade County, the largest water utility in the Southeast United States will take the lead in this conservation effort through the implementation of countywide water conservation measures.

At present, the water level in Lake Okeechobee is significantly lower than what is considered normal during this time of year, approximately 12.05 feet. Without significant rainfall replenishing Lake Okeechobee's water level, the District may have to initiate mandatory water restrictions for the Lower East Coast Service Area, which includes Miami-Dade County.

The County's Water and Sewer Department (MDWASD) is currently in the process of implementing the Water Use Efficiency Five-Year Plan (Plan) adopted by the Board of County Commissioners in April 2006. The Plan's overall goal is to "prevent and reduce wasteful, uneconomical, impractical, or unreasonable use of water resources." In response to current conditions, Miami-Dade County will implement the best management practices identified in the Plan for County owned facilities along with intensifying the public education campaign on water conservation. The implementation of these measures demonstrates the firm commitment Miami-Dade County has made to conserving its water resources and protecting the well-being of its residents and business community. The best management practices consist of conducting water use audits of all County buildings; confirming all water usage is metered, including maintenance, cleaning and other field operations; testing the County's fire and irrigation systems for optimal water use efficiency as well as current hydrant flushing procedures. In addition to the Plan's best management practices, all County facilities will reduce their water consumption by reducing their hours of landscape irrigation.

The current public education campaign will promote the enforcement of the County's Landscape Irrigation Ordinance 91-18 which states that irrigation is not permitted between the hours of 9:00 a.m. – 5:00 p.m. The public education campaign will also urge all residential, business and agricultural users to voluntarily limit the frequency of landscape irrigation and water consumption in the home. Additionally, MDWASD will continue operating in a manner that reduces stress on the Biscayne Aquifer. At present, MDWASD is reducing demands on the Biscayne Aquifer by withdrawing water from the Floridan Aquifer through its aquifer storage and recovery wells. MDWASD is also continuing to monitor for salt water intrusion through a network of monitoring wells.

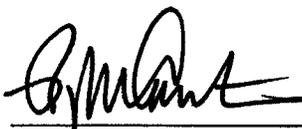
Section 32-8 of the Miami-Dade County Code provides guidance for implementation of water use restrictions in the event of an actual or potential drought situation. The District has determined that the potential exists for a more severe water shortage this dry season, and therefore, has taken steps to prepare in the event of prolonged drought conditions this dry season.

Levels of rainfall District-wide through the first eleven months of 2006 rank as the second-lowest on record, these low rainfall levels have left water levels in Lake Okeechobee below the average for this time of year. Current and future inflows into Lake Okeechobee over the dry season are projected to be relatively small. These conditions prompted the District's Governing Board to declare a Phase I Water Shortage Restrictions for the Lake Okeechobee Service Area on November 9, 2006.

Lake Okeechobee is a critical secondary source of water for the Lower East Coast Service Area during the dry season. It is relied upon to prevent saltwater intrusion and provide wellfield recharge when water levels in the Biscayne Aquifer and water conservation areas can no longer meet user demands. This situation is compounded when water levels in Lake Okeechobee dip below 10.5 feet making it difficult to deliver water to the Lower East Coast Service Area due to conveyance limitations in the regional system canals and evaporation of water during dry conditions. As a result, on December 14, 2006, the District's Governing Board authorized the temporary installation of forward pumps to draw water from Lake Okeechobee in the event of prolonged drought conditions.

The District's Water Shortage Warning requests that all water users practice efficient water use methods that include: limiting landscape irrigation by watering only when the plants show signs of stress, in many cases this is once a week; switching sprinkler systems to manual and encouraging agricultural users to increase water conservation efforts and reduce demand when possible.

In light of the above, it is critical that aggressive water conservation measures are implemented to ensure sufficient water supplies are maintained in the Biscayne Aquifer thus decreasing dependence on regional water supply deliveries from Lake Okeechobee.



Assistant County Manager