

## MEMORANDUM

**TO:** John Mitnik, Bureau Chief, Engineering and Construction

**THROUGH:** Dean Powell, Bureau Chief, Water Supply

**FROM:** SFWMD Staff Water Supply Advisory Team

**DATE:** December 15<sup>th</sup>, 2015

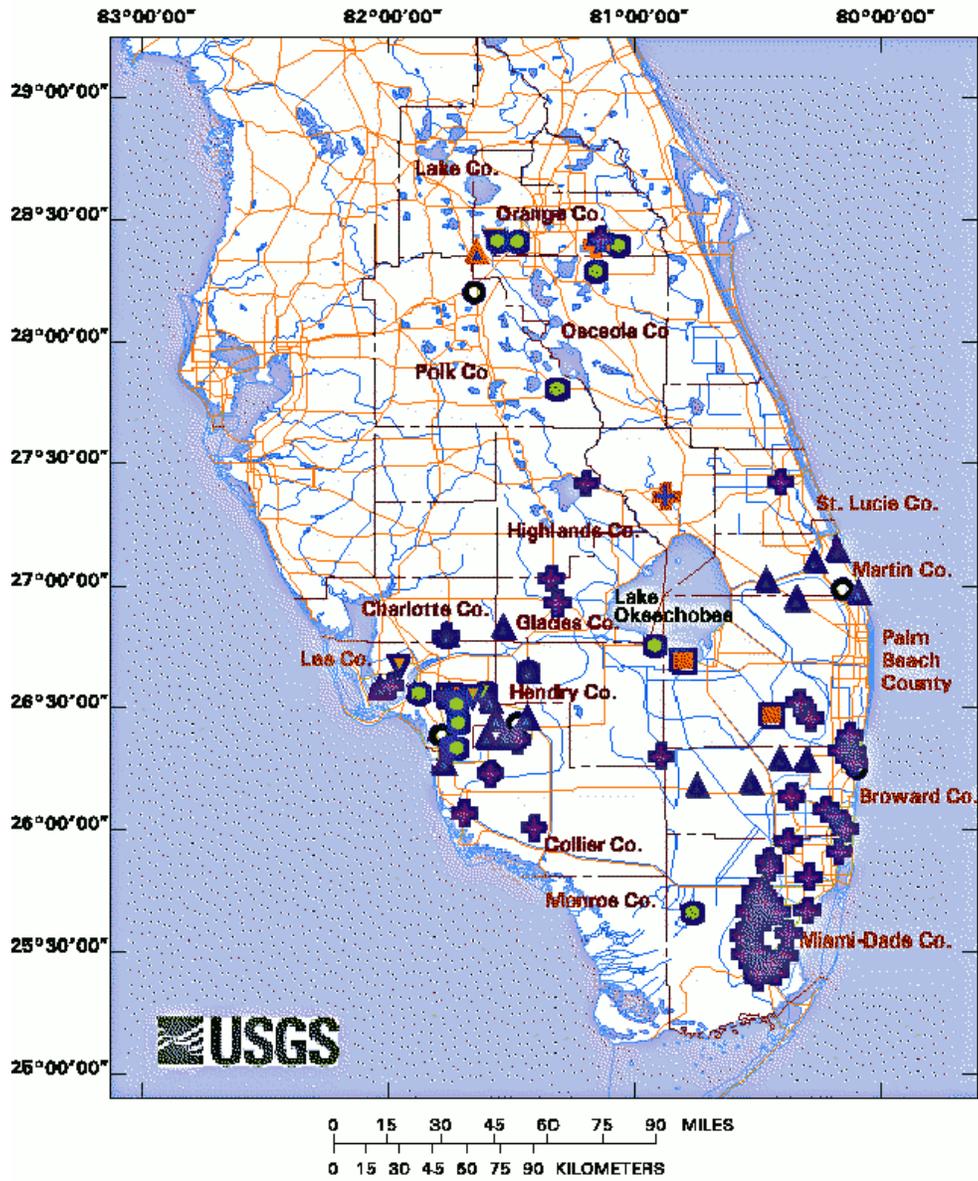
**SUBJECT:** Water Supply Report

### District-wide Conditions

Groundwater levels showed mixed trends throughout most of the District over the last week. The majority of United States Geological Survey (USGS) real-time wells in the Kissimmee Basin (KB) within the District boundaries were in the median percentile range for this time of year. About half of the surface and groundwater stations in the KB recorded decreases in water levels during the last seven days. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 were at 22.84, 20.53, and 22.24 feet, respectively, well above the 14 feet NGVD agricultural cutoff level. The majority of the UEC surficial aquifer wells are at in the upper 10<sup>th</sup> to 30<sup>th</sup> percentile range for this time of year. Surface and groundwater levels in the Biscayne aquifer are showing the impacts of El Nino. Most of the USGS Biscayne aquifer monitor wells are in their upper 10<sup>th</sup> percentile range at this time.

In the Lower West Coast (LWC), groundwater levels decreased in most of the monitoring stations over the last seven days. The majority of the wells in the surficial and Lower Tamiami aquifers are at median levels or higher for this time of year. About ninety percent of the Sandstone aquifer wells are at median levels or higher for this time of year. About three quarters of the Mid-Hawthorn aquifer wells are at median levels or higher for this time of year, with the remainder in the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range or lower. **Figure 1** is a USGS map showing conditions on December 14<sup>th</sup>, 2015, from a 7-day running average of daily recorded water levels compared to the statistical distribution of daily water levels for the period of record for selected sites in southern Florida.

PROVISIONAL DRAFT -- Subject to Revision



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| <ul style="list-style-type: none"> <li> Rivers and canals</li> <li> Roads and highways</li> <li> County boundaries</li> <li> Telemetry site</li> <li> No telemetry, monthly download</li> </ul> | <p>Water level compared to historical data, without trend analysis:</p> <ul style="list-style-type: none"> <li> Insufficient information available to compute water-level statistics</li> <li> In lowest 10 percent of past water elevations</li> <li> Within lowest 10 to 30 percent of past water elevations</li> <li> Within 20 percent of the median of past water elevations</li> <li> Within highest 10 to 30 percent of past water elevations</li> <li> In highest 10 percent of past water elevations</li> </ul> |
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**Water levels at selected sites in South Florida,  
Based on PROVISIONAL DATA, as of December 14, 2015.**

**Figure 1. Current Water-level Conditions in South Florida (source: USGS, [http://www.sflorida.er.usgs.gov/ddn\\_data/index\\_ndt.html](http://www.sflorida.er.usgs.gov/ddn_data/index_ndt.html))**

## **Water Supply Technical Input to LORS2008**

The Palmer Index for Lake Okeechobee (LOK) Tributary Conditions is -0.40, classified as “normal,” and is in the “low” risk category. The LOK stage for the next two months is projected to be in the Low Flow Sub-Band, and the risk to water supply is categorized as “moderate.” The Climate Prediction Center’s (CPC) Precipitation Outlook is projected as “above normal” for one month and “above normal” for three months, leaving both the one month outlook and the three month outlook in the “low” risk category. The LOK Seasonal Net Inflow Forecast is in the “normal to extremely wet” range, with “low” risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as “wet,” with “low” risk to water supply. The stages in the Water Conservation Areas are all above line 1 and are in the “low” risk category. Groundwater levels in LEC Service Areas are in the “low” risk category. The Year-Round Irrigation Rule is in effect for the LEC Service Areas. **Figure 2** summarizes the water supply risk indicators.

**LORS2008 Implementation on 12/14/2015 (ENSO Neutral Condition):**

**Water Supply Department Technical Input**

**Water Supply Outlook:**

District wide, Raindar rainfall 0.20 inches for the week ending 12/14/2015. Lake stage on 12/14/2015 is 14.76 ft, up 0.06 ft from last week.

The updated December 2015 SFWMM Dynamic Position Analysis [percentile graph](#) and [tracking chart](#) for Lake Okeechobee show that the lake stage is in the Low Operational Sub-Band.

The LORS2008 tributary [indices](#) are classified as **Wet**. The PDSI indicates normal condition and the LONIN is Wet. The classification is based on the wetter of the two.

**Water Supply Risk Evaluation**

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub-Band	M
	Palmer Index for LOK Tributary Conditions	-0.40 (Normal)	L
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Forecast	1.82 ft (Normal to Extremely Wet)	L
	AMO warm/El Nino		
	LOK Multi-Seasonal Net Inflow Forecast	4.03 ft (Wet)	L
AMO warm/El Nino			
WCAs	WCA 1: Site 1-7, 1-8T, & 1-9	(17.22 ft)	L
	WCA 2A: Site 2-17 HW	(12.98 ft)	L
	WCA-3A: 3 Station Average (Site 63 and 65)	(10.61 ft)	L
LEC	Service Area 1	Year-Round Irrigation Rule in effect	L
	Service Area 2	Year-Round Irrigation Rule in effect	L
	Service Area 3	Year-Round Irrigation Rule in effect	L

Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow forecasts use slightly different classification intervals than those used by the 2008-LORS for classifying the tributary hydrologic condition (THC).

**Figure 2. Water Supply Risk Indicators**