

## MEMORANDUM

**TO:** John Mitnik, Division Director, Operations, Engineering, and Construction

**THROUGH:** Peter Kwiatkowski, Section Administrator, Resource Evaluation

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

**DATE:** January 24<sup>th</sup>, 2017

**SUBJECT:** Water Supply Report

### **District-wide Conditions**

Surface and groundwater levels showed mixed trends throughout the District over the last week. Approximately one third of United States Geological Survey (USGS) real-time wells in the Kissimmee Basin (KB) within the District boundaries are at median levels for this time of year. The remainder are mostly in the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range. The majority of the surface and groundwater stations across the KB recorded increases in water levels over the last week. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 were at 22.03, 19.06, and 15.86 feet, respectively, above the 14 feet NGVD agricultural cutoff level. Most of UEC surficial aquifer wells are in the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range for this time of year. Surface and groundwater levels increased in over half of the stations in the Biscayne aquifer. Water levels are low in Everglades National Park and the C-111 basin. Over half of the USGS Biscayne aquifer monitor wells are in their median percentile range at this time, with most of the remainder in the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range or lower.

In the Lower West Coast (LWC), groundwater levels also increased in about fifty percent of the monitor wells over the last seven days. Approximately half of the wells in the Surficial aquifer are in the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range, with the remainder in the lowest 10<sup>th</sup> percentile range. About half of the Lower Tamiami aquifer wells are at median levels, with most the remainder in the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range. Approximately one third of the Sandstone aquifer monitor wells are in the median percentile range for this time of year, again with the remainder split between the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range and the lowest 10<sup>th</sup> percentile. About half of the Mid-Hawthorn aquifer monitor wells are at median levels or higher for this time of year, with the remainder split between the lower 10<sup>th</sup> to 30<sup>th</sup> percentile range and the lowest 10<sup>th</sup> percentile range. **Figure 1** summarizes current water level conditions.

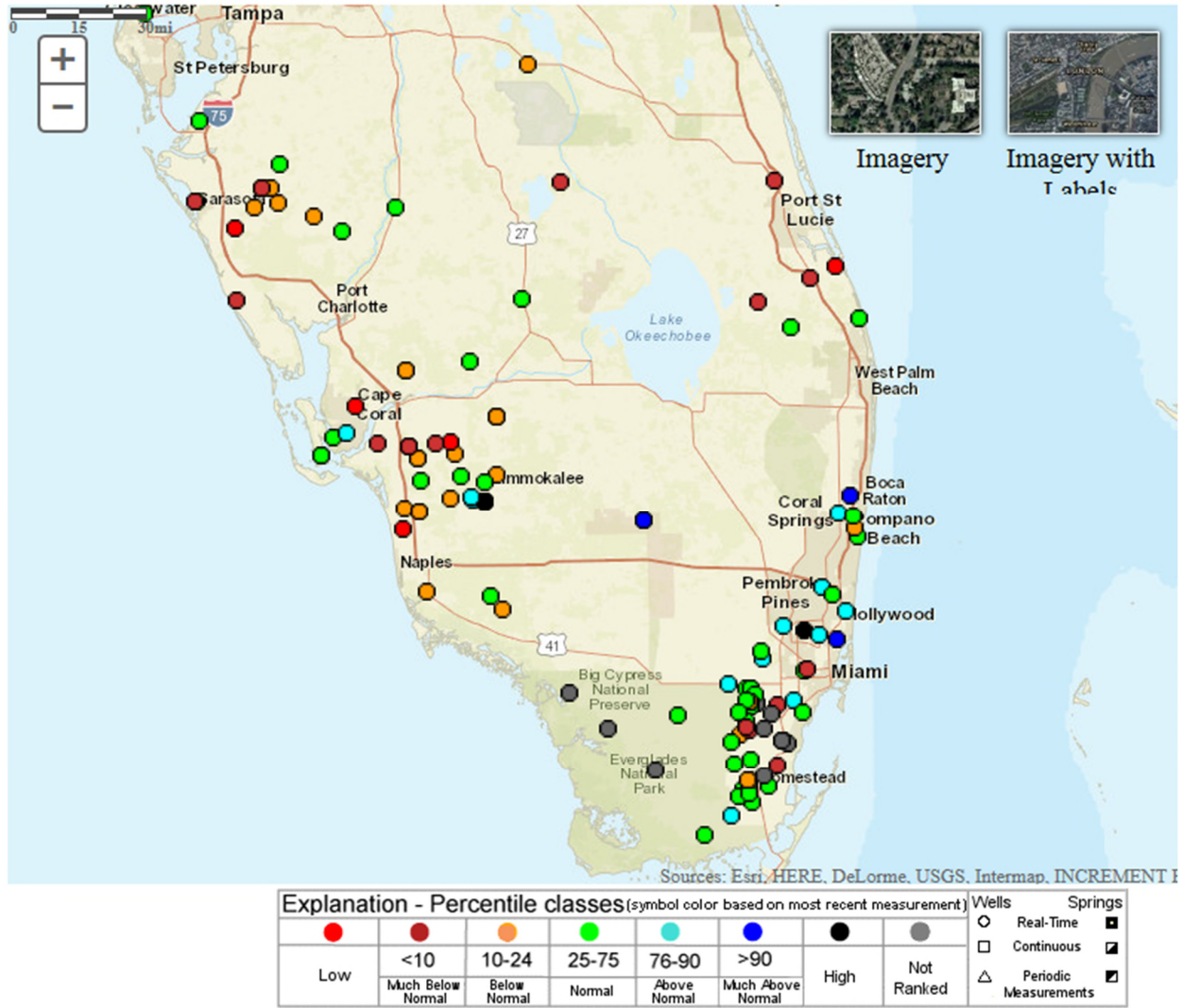


Figure 1. Florida Real-Time Groundwater Level Network Map

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

The Palmer Index for Lake Okeechobee (LOK) Tributary Conditions is -1.95, classified as “dry,” and is in the “moderate” 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 “normal” for one month and “below normal” for three months, leaving the one month outlook in the “low” risk category and the three month outlook in the “moderate” risk category. The LOK Seasonal Net Inflow Forecast is in the “dry” range, with “moderate” risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as “normal” with “moderate” 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 1/23/2017 (ENSO Neutral Condition):**

**Status for week ending 1/23/2017:**

District wide, Raindar rainfall was 0.60 inches for the week. Lake stage on 1/23/2017 was 13.95 ft, down 0.07 ft from last week.

The updated January 2017 SFWMM Dynamic Position Analysis [percentile graph](#) for Lake Okeechobee show that the current lake stage is in the Low Operational Sub-Band.

The LORS2008 tributary [indices](#) are classified as **Dry**. The PDSI indicates dry condition and the LONIN is Dry. 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	-1.95 (Dry)	M
	CPC Precipitation Outlook	1 month: Normal	L
		3 months: Below Normal	M
	LOK Seasonal Net Inflow Outlook	0.42 ft (Dry)	M
	ENSO La Nina Years		
	LOK Multi-Seasonal Net Inflow Outlook	3.08 ft (Normal)	M
ENSO La Nina Years			
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (16.52 ft)	L
	WCA 2A: Site 2-17 HW	Above Line1 (11.99 ft)	L
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (9.73 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 outlooks use slightly different classification intervals than those used by the 2008-LORS.

**Figure 2. Water Supply Risk Indicators**