

## MEMORANDUM

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

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

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

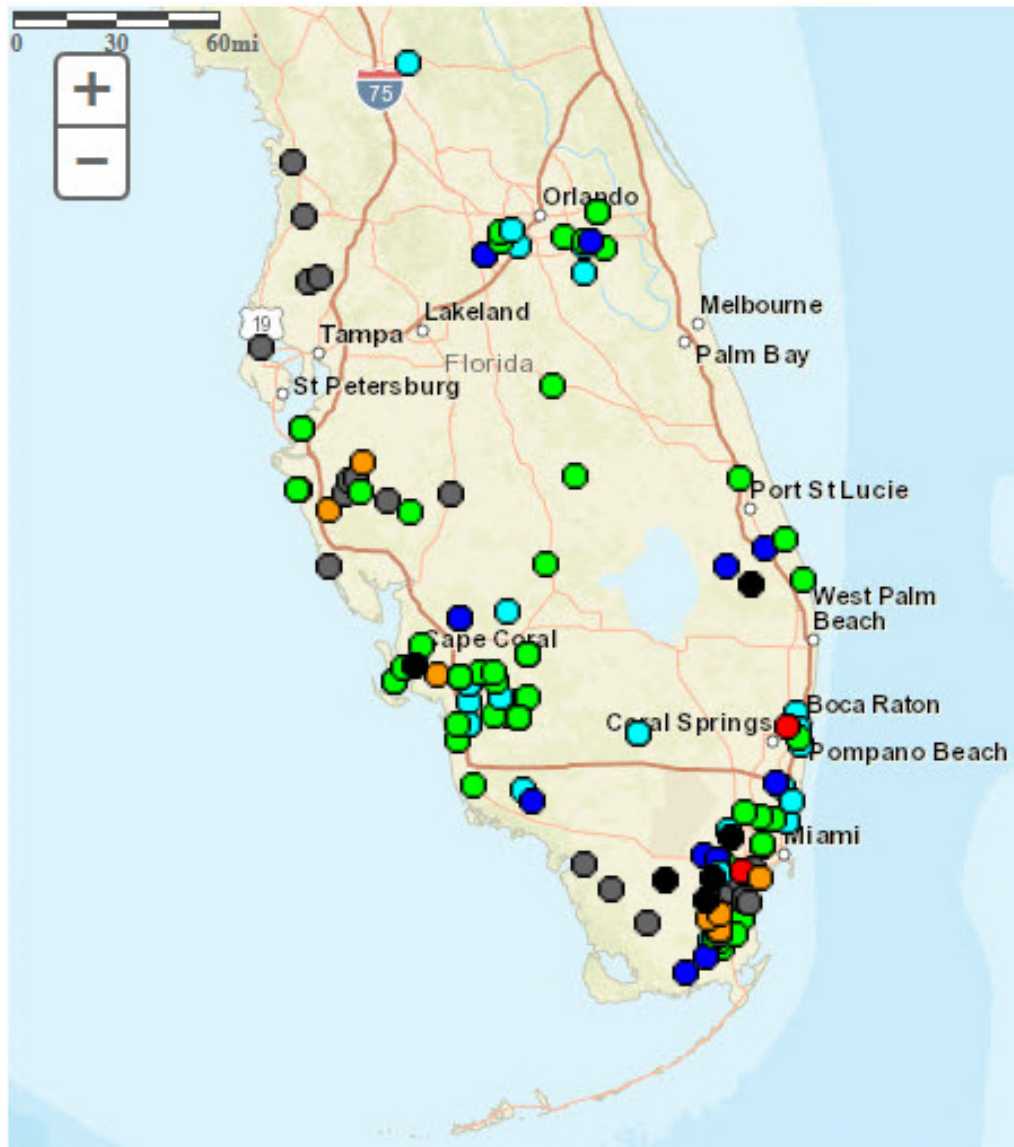
**DATE:** October 24, 2017

**SUBJECT:** Water Supply Report

### **District-wide Conditions**

Surface and groundwater levels showed mixed trends throughout 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 are at median levels or higher for this time of year. Most of the surface water and groundwater stations across the KB recorded decreases in water levels over the last week. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 are at 22.75, 20.95, and 21.84 feet, well above the fourteen feet agricultural cut-off. Approximately half of UEC surficial aquifer wells are in the upper 76<sup>th</sup> to 90<sup>th</sup> percentile range or higher for this time of year, with the remainder at median levels. Surface and groundwater levels decreased in about two thirds of the Lower East Coast (LEC) monitoring stations over the past week. About three quarters of the USGS Biscayne aquifer monitor wells are in the median percentile range or higher for this time of year.

In the Lower West Coast (LWC), groundwater levels decreased in about two thirds of the monitor wells over the last seven days. About forty percent of the wells in the Surficial aquifer are in the upper 76<sup>th</sup> to 90<sup>th</sup> percentile range or higher for this time of year. The remainder is at median levels. Most of the Lower Tamiami aquifer wells are in the median percentile range. Approximately one third of the Sandstone aquifer monitor wells are in the upper 76<sup>th</sup> to 90<sup>th</sup> percentile range, with the remainder at median levels for this time of year. About one third of the Mid-Hawthorn aquifer monitor wells are in the upper 76<sup>th</sup> to 90<sup>th</sup> percentile range or higher, with the remainder split between median levels and the lower 10<sup>th</sup> to 14<sup>th</sup> percentile range. **Figure 1** summarizes current water level conditions.



Explanation - Percentile classes (symbol color based on most recent measurement)							Wells	Springs
<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: grey;">●</span>	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">○</span> Real-Time	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">■</span>
Low	<10	10-24	25-75	76-90	>90	High	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">□</span> Continuous	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">▣</span>
	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal		<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">△</span> Periodic Measurements	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">▤</span>
						Not Ranked		

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 2.24 classified as “normal,” and is in the “low” risk category. The LOK stage for the next two months is projected to be in the Intermediate Sub-Band, and the risk to water supply is categorized as “low.” 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 three-month outlook in the “moderate” risk category. The LOK Seasonal Net Inflow Forecast is in the “normal” range, with “low” risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as “normal” with “moderate” risk to water supply. The stages in all Water Conservation Areas are above line 1 and are in the “low” risk category. Year-Round Irrigation Rule is in effect for the LEC Service Areas. **Figure 2** summarizes the water supply risk indicators.

### LORS2008 Implementation on 10/23/2017 (ENSO Neutral Condition):

#### **Status for week ending 10/23/2017:**

District wide, Raindar rainfall was 0.52 inches for the week. Lake stage on 10/23/2017 was 16.97 ft, down 0.21 ft from last week.

The updated October 2017 SFWMM Dynamic Position Analysis [percentile graph](#) for

Lake Okeechobee show that the current lake stage is in the High Operational Sub-Band.

The 2008 LORS Tributary Hydrologic Condition (THC) tributary is classified as **Very Wet**. The PDSI indicates Wet condition and the LONIN is Very Wet. The THC classification is based on the wetter of the two [indices](#).

#### **Water Supply Risk Evaluation**

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Intermediate Sub Band	L
	Palmer Index for LOK Tributary Conditions	2.24 (Normal)	L
	CPC Precipitation Outlook	1 month: Normal	L
		3 months: Below Normal	M
	LOK Seasonal Net Inflow Outlook	1.79 ft	L
	ENSO La Nina Years	(Normal)	L
	LOK Multi-Seasonal Net Inflow Outlook	1.55 ft (Normal)	M
WCAs	ENSO La Nina Years		
	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (17.55 ft)	L
	WCA 2A: Site 2-17 HW	Above Line 1 (13.84 ft)	L
LEC	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (12.47 ft)	L
	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**