M E M O R A N D U M

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

THROUGH: Peter Kwiatkowski, Section Administrator, Resource Evaluation

FROM: SFWMD Staff Water Supply Advisory Team

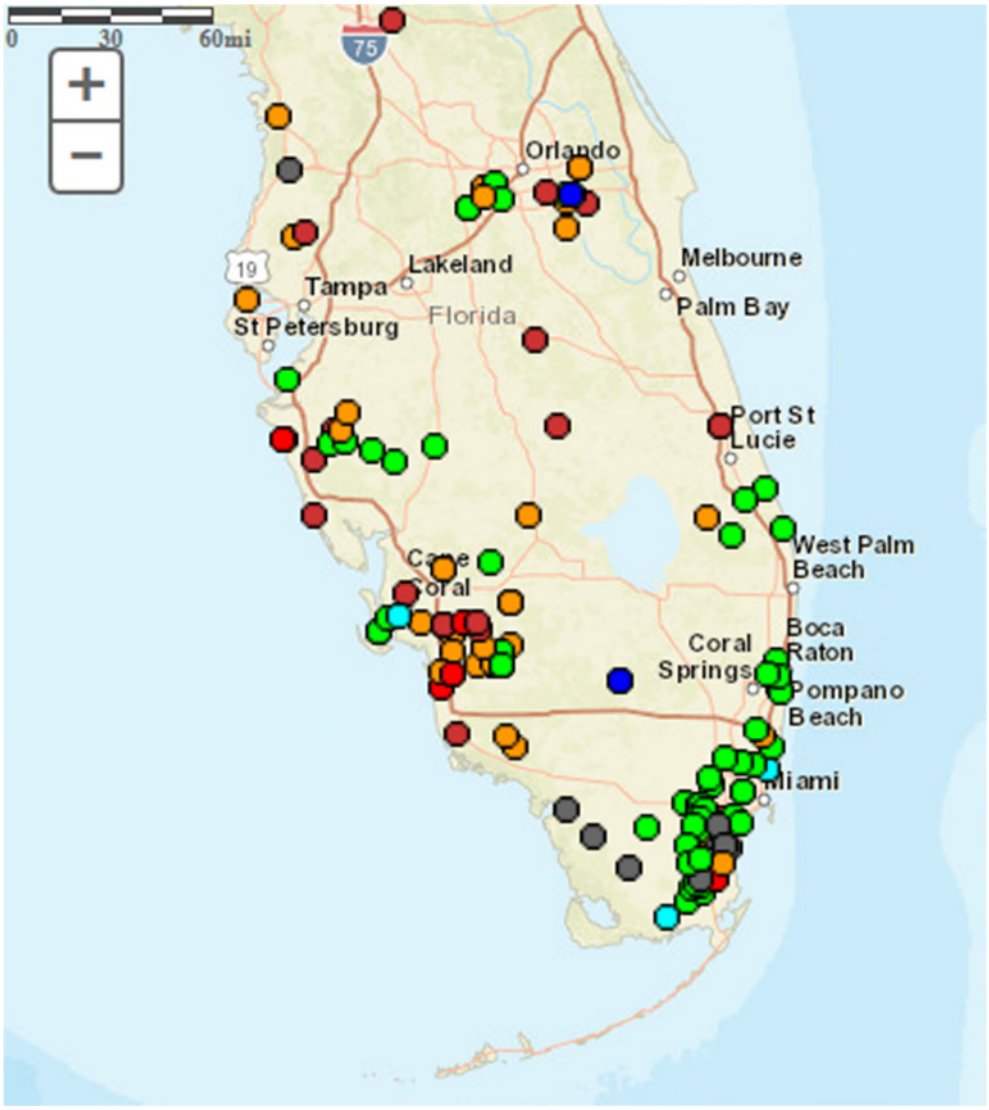
DATE: March 21st, 2017

SUBJECT: Water Supply Report

District-wide Conditions

Surface and groundwater levels showed mixed trends throughout the District over the last week. Approximately thirty percent 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 in the lower 10th to 24th percentile range or lower. The majority of the surface 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 were at 20.45, 17.63, and 15.91 feet. The majority of UEC surficial aquifer wells are in the lower 10th to 24th percentile range or lower for this time of year. Surface and groundwater levels decreased in over half of the stations in the Biscayne aquifer. Water levels are low in South Dade, Everglades National Park and the C-111 basin. Approximately two thirds of the USGS Biscayne aquifer monitor wells are within their median percentile range at this time.

In the Lower West Coast (LWC), groundwater levels decreased in most of the monitor wells over the last seven days. Overall, groundwater levels are low compared to historical averages for this time of year. The majority of the wells in the Surficial aquifer are in the lower 10th to 24th percentile range or lower. About two thirds of the Lower Tamiami aquifer wells are in the lower 10th to 24th percentile range or lower, with the remainder at median levels. Most of the Sandstone aquifer monitor wells are in the lower 10th to 24th percentile range or lower. Almost two thirds of the Mid-Hawthorn aquifer monitor wells are in the lower 10th to 24th percentile range or lower. The Maximum Developable Limits (MDLs) and groundwater levels of key monitor wells in the LWC are under review at this time. **Figure 1** summarizes current water level conditions.



Explanation - Percentile classes (symbol color based on most recent measurement)								Wells / Springs
								○ Real-Time ■
Low	<10 Much Below Normal	10-24 Below Normal	25-75 Normal	76-90 Above Normal	>90 Much Above Normal	High	Not Ranked	□ Continuous ◪
								△ Periodic Measurements ◩

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 -2.52, classified as "extremely dry," and is in the "high" risk category. The LOK stage for the next two months is projected to be in the Beneficial Use Sub-Band, and the risk to water supply is categorized as "high." The Climate Prediction Center's (CPC) Precipitation Outlook is projected as "normal" for one month and "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 "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 Water Conservation Areas 1 and 3A are above line 1 and are in the "low" risk category. Water Conservation Area 2A stage is below line 2 and in the "high" 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 3/20/2017 (ENSO Neutral Condition):

Status for week ending 3/20/2017:

District wide, Raindar rainfall was 0.43 inches for the week. Lake stage on 3/20/2017 was 12.85 ft, down 0.23 ft from last week.

The updated March 2017 SFWMM Dynamic Position Analysis percentile graph for Lake Okeechobee show that the current lake stage is in the Base Flow 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	Beneficial Use Sub-Band	H
	Palmer Index for LOK Tributary Conditions	-2.52 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Normal	L
		3 months: Normal	L
	LOK Seasonal Net Inflow Outlook	0.69 ft (Dry)	M
	ENSO La Nina Years		
	LOK Multi-Seasonal Net Inflow Outlook	2.23 ft (Normal)	M
	ENSO La Nina Years		
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (16.19 ft)	L
	WCA 2A: Site 2-17 HW	Below Line 2 (10.59 ft)	H
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (9.20 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